Metokote UK Limited is hereby permitted by The Borough of Telford & Wrekin to carry on a surface treatment activity under Section 2.3(A2) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended) and other Part B activities as listed and as described below within the installation boundary as marked red on the attached plan reference PPC134/1 and in accordance with the following conditions.

<table>
<thead>
<tr>
<th>Provenance</th>
<th>Relevant Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Application Made</td>
<td>16.12.03</td>
</tr>
<tr>
<td>Date ‘Duly Made’</td>
<td>23.09.03</td>
</tr>
<tr>
<td>Date Permit First Issued</td>
<td>03.03.06</td>
</tr>
<tr>
<td>Date of Variations</td>
<td>none</td>
</tr>
<tr>
<td>Date of Latest Variation</td>
<td>none</td>
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</table>

This permit consists of 52 numbered pages
Description of the Installation

The installation is an electrodeposition coating process for miscellaneous metal components. The company supports products for the off-highway, automotive and related markets and these comprise the majority of the production. The installation is broken down into the following activities or elements as listed below:

1 – Surface Treatment Activity
2 – Coating Activity
3 – Curing element
4 – Raw Material Storage element
5 – Waste storage element
6 – Waste Water Treatment element

All prefabricated products are delivered to the installation from the adjacent factory via a conveyor system, these are loaded onto jigs by the client and remain on those jigs for the duration of the process. The cleaning step of the process is accomplished by a combination of spray and immersion cleaning. Aqueous alkaline cleaning is necessary to ensure that the parts to be coated are free of heavy soils and oil. Parts are then rinsed with water to ensure that all residual cleaner has been removed before parts move to the next step.

Following rinsing, parts move to the conditioning step of the process. In this step, parts are immersed in a solution used to activate the substrate where zinc phosphate crystals can deposit during the next step of the process.

Parts then move to the zinc phosphate step of the process. The parts are immersed in a solution of zinc phosphate coating that is necessary for improved corrosion protection and to provide an attachment media for the electrodeposition coating. Parts are then rinsed with deionised water before moving to the next step.

The electrodeposition coating operation consists of one electrodeposition coating line and one natural gas-fired curing oven. The coating section of the process utilizes three tanks. The first tank is the electrodeposition coating tank where electrically grounded parts are slowly coated by passing a low voltage DC current, generated in a nearby rectifier. After coating, the parts are rinsed with DI water (permeate) to rinse off any unbonded coating. Parts are then given a final DI water rinse prior to entering the natural gas-fired oven. The curing oven typically operates at approximately 200 degrees Celsius.

Emissions including volatile organic compounds (VOC), nitrogen oxide (NOx) and carbon monoxide (CO) are generated from the electrodeposition coating and the combustion of natural gas to heat the cure oven. The electrocoat material utilized in this process has a very low VOC content and contains no hazardous air pollutants (HAPs).
The following text divides the processes as described above into activities both those scheduled under the above regulations and those non-scheduled activities required to be permitted because of their polluting potential and direct association and technical connection with the scheduled activities.

1 – Surface Treatment Activity
All materials to be coating are subjected to some or all of the following processes that between then form the surface treatment activity:
1. Spray Cleaning
2. Alkaline Cleaner
3. Alkaline Degreaser
4. Water rinse
5. Water rinse
6. Conditioner
7. Phosphate
8. Water rinse
9. Sealer
10. Deionised Water rinse
11. Deionised Water rinse

In all cases materials to be introduced to the tanks enter the installation by conveyor from the adjacent industrial unit where they are fabricated. The products to be coated are already on or loaded onto specially constructed loading jigs or attached to wires or chains prior to lifting by the dedicated conveyor system and the then the overhead crane. The materials are then moved from tank to tank in sequence as required, and subject to the requisite control programme for the desired coating.

All tanks within the installation are the same size (70,000L) and all within the site bunded area.

The *spray cleaning* tank is a series of spray jets of water designed to remove gross contamination from the products to be coated. The 70,000L tank is therefore not full, the sprayed liquid is captured and re-circulated to the treatment plant.

The alkaline cleaner tank is the first stage of the true surface treatment process. The tank contains a weak potassium hydroxide solution heated to a temperature of 70°C. The alkaline cleaner removes the remaining dirt and detritus from the materials to be coated.

The *degreasing* tank removes surface oils, grease and traces of coolants and lubricants from materials to be coated using proprietary solutions which are alkaline. It is normal to add the proprietary chemicals to the degrease bath which removes oil and grease from the metal surface by emulsification. The oil content of the cleaner
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended)
The Solvent Emissions (England and Wales) Regulations 2004

baths is controlled by periodic bath dumps. The bath is heated to about 70°C to aid the cleaning process by heat generated by the boiler.

*Rinse Water* is used after the degreasing stage to prevent carry over of concentrated alkali into the conditioner and phosphating pre-treatment, which would otherwise contaminate the contents of those tanks.

The *conditioner* tank contains a Titanium salt which refines the subsequently applied Zinc Phosphate coating.

After ensuring the products are clean and where necessary have been conditioned, they are *phosphated* by being lowered into a tank of Zinc Phosphate. The chemical reaction between the surface of the metal and the chemical is assisted by heating of the tank. The emissions from the tank are extracted to atmosphere through lip extraction. The phosphating of the metal adds anticorrosion properties and further aids the adhesion of the paint to the surface of the metal by providing a ‘key’.

After conditioning and phosphating, the products are subjected to a further water rinse. This prevents carry over of chemicals into the sealing tank and maintains the effectiveness of the sealing process.

The products are then subjected to the *sealing* process by immersion into a tank containing zirconium compounds.

Finally, the fully prepared products are rinsed twice in two tanks of *de-ionised water*. The purpose of the final rinse is to ensure that the products are completely chemical free prior to introduction into the coating process. Electrophoretic paint is highly sensitive to contaminants, and as such ‘poisoning’ of the electrophoretic cell with ion forming contaminants lowers paint transfer efficiency and massively affects quality. The de-ionised water is re-circulated within the water treatment plant and is the first of the water treatment elements carried out onsite.

Surface Treatment is an activity falling within schedule in section 2.3(A2) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended).

### 2 – Coating Activity

The coating section of the process utilizes three tanks using an electrophoretic coating technique (see Electrophoresis below). The first tank is the electrodeposition coating tank where electrically grounded parts are slowly coated by passing a medium voltage DC current, generated in a nearby rectifier, into the paint solution formed from a paste and resin. Both the paste and resin (the electrocoat) are manufactured by PPG and are added as automatically and as required to the principal e-coat bath, this, along with the de-ionised water, some solvent and chemicals designed to maintain the ionic solution, determine the relative amount of
paint required by measuring solid content of the solution. Where solid content drops, further paste and resin are added. Electrophoretic coatings (E-coat) are commonly used throughout the automotive industry where high corrosion resistance is required. Typically this is used on sub frame components such as steering racks, suspension mounts, chassis fixtures and auxiliary attachments such as tow bars.

After coating, the parts are rinsed with permeate produced by passing the paint solution through an ultrafilter. Contaminated permeate is returned to the paint bath in a closed loop system. Two stages of permeate are used to rinse off any unbonded coating prior to entering the natural gas-fired oven. The cure oven typically operates at approximately 200 degrees Celsius.

All the heated tanks are lip extracted to atmosphere but contain only steam or water vapour as noted in Table 3. The actual e-coat tanks may evolve small amounts of Hydrogen, Amine or Oxygen dependent on the nature of the paint used within the e-coat process.

The electrophoretic paint is extremely expensive but has the benefit that the majority can be recovered and re-used. The initial paint tank and the two permeate rinse tanks form a closed loop water circuit with almost complete recovery of the paint. This makes Ecoat an extremely efficient coating process.

Ecoat is an activity falling within schedule in section 6.4(B) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended). It is technically connected and directly associated with the surface treatment activity in that the purpose of the surface treatment is specifically to then provide a coating to the products.

**Electrophoresis**

Electrocoating is a painting method which uses an electrical current to deposite paint. The process works on the principal of "Opposites Attract"...

The electrocoat system applies a DC charge to a metal part immersed in a bath of oppositely charged paint particles. The paint particles are drawn to the metal part and paint is deposited on the part, forming an even, continuous film over the entire surface, until the coating reaches the desired thickness. At that thickness, the film insulates the part, where attraction stops and the process is complete. Depending on the polarity of the charge, electrocoating is classified as either anodic or cathodic.
In anodic electrocoating, the part to be coated is the anode with a positive electrical charge which attracts negatively charged paint particles in the paint bath. During the anodic process, small amounts of metal ions migrate into the paint film which limit the performance properties of anodic systems. The main use for anodic products is interior or moderately exterior environments. Anodic coatings are economical systems that offer excellent colour and gloss control.

In cathodic electrocoating, the product has a negative charge, attracting the positively charged paint particles. Cathodic electrocoat applies a negative electrical charge to the metal part which attracts positively charged paint particles. Reversing the polarities used in the anodic process significantly reduces the amount of iron entering the cured paint film and improves the cathodic properties. Cathodic coatings are high-performance coatings with excellent corrosion resistance that can be formulated for exterior durability.

The chemistry of electrophoretic paints does vary, but most contain a small amount up to 10% VOC, the newer generation of e-coats have a much lower solvent content.

Emissions including volatile organic compounds (VOC), nitrogen oxide (NOx) and carbon monoxide (CO) are generated from the electrodeposition coating and the combustion of natural gas to heat the curing oven. The electrocoat material utilized in this process has a very low VOC content typically 1-2%.

3 – Curing element

As the coated component exits the coating tank it is allowed to drain and is then moved by conveyor system and enters the gas fired curing oven. The ovens are bottom loaded and are capable of holding 11 complete jigs as part of a continuous process. The curing oven operates at a constant temperature of about 200 degrees Celsius. The components pass through the curing oven relatively slowly and are resident for sufficient time (about 45 minutes) to adequately cure the coating but not long enough for the component itself to become hot.

The waste gases from the products as well as burner gases are ducted to atmosphere via an extraction stack.
The curing oven is not an activity falling within the scope of schedule 1 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended), however it is both technically connected and directly associated with the coating activity in that the forced curing off the coating and the emissions give rise to potential odour and VOC emissions to the environment. The curing oven is therefore regulated as part of this permit.

4 – Raw Material Storage element

Raw materials for the installation are stored in varying locations around the site, as marked on the plan PPC134/2 in Appendix 2.

The major raw materials concerned with the installation are listed in Tables 1A and 1B along with the activities or elements those materials are concerned with in the installation.

Raw material storage is an element within the surface treatment and coating activities that are directly associated and technically connected with the activities scheduled in sections 2.4(A2) and 6.4(Part B) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended) and as such it is regulated as a polluting activity.

Materials Used

Table 1A (below) lists the total quantities of raw materials (in tonnes – except where noted otherwise) brought into the installation and subjected to processing. The figures listed are for the year 2004/5.

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Usage (tonnes)</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardoclean 5166S</td>
<td>20,328</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardobond additive H7401</td>
<td>0.420</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardobond additive H7375</td>
<td>1.056</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>V6513</td>
<td>1,332</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>24 IMU</td>
<td>23,052</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>24DRI</td>
<td>7,356</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardobond additive H7004</td>
<td>9,000</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardobond H7102</td>
<td>0.420</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardolene D6800</td>
<td>0.924</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>Gardobond H7204</td>
<td>1,080</td>
<td>1.4.5.6</td>
</tr>
<tr>
<td>FRMR 2001</td>
<td>142,446</td>
<td>2.3.4.5.6</td>
</tr>
<tr>
<td>FRMP 3001</td>
<td>27,205</td>
<td>2.3.4.5.6</td>
</tr>
<tr>
<td>Lactic acid</td>
<td>0.95</td>
<td>2.3.4.5.6</td>
</tr>
<tr>
<td>Sodium Hydroxide 32%</td>
<td>80</td>
<td>4.5.6</td>
</tr>
<tr>
<td>Hydrochloric acid 28%</td>
<td>78</td>
<td>4.5.6</td>
</tr>
<tr>
<td>Ferric chloride</td>
<td>0.025</td>
<td>4.5.6</td>
</tr>
<tr>
<td>Polyelectrolyte</td>
<td>0.010</td>
<td>4.5.6</td>
</tr>
</tbody>
</table>
The receipt and inspection of incoming materials includes:

- Visual inspection of loads during off-loading
- Rejection of any loads containing excessive contamination or non-compliance with purchase specification.

The process has a discharge to foul sewer and to controlled water, both are subject to a water treatment process prior to discharge. The water use for the installation is listed in Table 1B below:

**Table 1B - Water use within the installation**

<table>
<thead>
<tr>
<th>Process / Plant</th>
<th>Supply Source</th>
<th>Release Routes</th>
<th>Quantity (cubic metres per annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity 1 (Surface Treatment) &amp; Element 6 (Waste Water Treatment)</td>
<td>Main Water</td>
<td>Foul sewer Via Effluent Treatment</td>
<td>12,000</td>
</tr>
<tr>
<td>Pretreatment and E-coat</td>
<td>Deionised water</td>
<td>Recycled through Deionised system</td>
<td>63,000</td>
</tr>
<tr>
<td><strong>Total Consumed</strong></td>
<td></td>
<td></td>
<td><strong>12,000</strong></td>
</tr>
</tbody>
</table>

*Water use in italics in the above table is water that is recycled.*

Table 2 (below) lists all the plant and equipment concerned with the installation that is regulated within this permit. The plant or equipment is classified by Activity (discussed above), identified specifically by reference numbers, relevant emission point(s) and any relevant abatement plant.

**Table 2. List of plant equipment concerned with the installation**

<table>
<thead>
<tr>
<th>Plant Equipment used</th>
<th>Activity</th>
<th>Machine reference numbers</th>
<th>Abatement</th>
<th>Emission Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank 1 Spray Cleaner Tank</td>
<td>1</td>
<td></td>
<td>None</td>
<td>#4, WWT</td>
</tr>
<tr>
<td>Tank 1 Burner No 1</td>
<td>1</td>
<td>Lanemark TX60NJ20045/1</td>
<td>None</td>
<td>#5</td>
</tr>
<tr>
<td>Burner1 Exhaust Fan</td>
<td>1</td>
<td>Fan Eng FE 024762</td>
<td>None</td>
<td>#5</td>
</tr>
<tr>
<td>Tank 1 spray pump</td>
<td>1</td>
<td>Godwin 80-65-160 15Kw</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank1 dosing pump 1</td>
<td>1</td>
<td>LMI Milton Roy CEP181-362S2/1</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 1 dosing pump 2</td>
<td>1</td>
<td>LMI Milton Roy CEQA45P4T1/1</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 1 &amp; 2 lip air inlet</td>
<td>1</td>
<td>Fan Eng FE 024833</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Equipment</td>
<td>Quantity</td>
<td>Description</td>
<td>Make/Model</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>---------------------------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Tank 1 &amp; 2 lip exhaust</td>
<td>1</td>
<td>Fan Eng FE 024888</td>
<td>None</td>
<td>#4</td>
</tr>
<tr>
<td>Tank 2 dip cleaner tank</td>
<td>1</td>
<td>Fan Eng FE 024762</td>
<td>None</td>
<td>#4, WWT</td>
</tr>
<tr>
<td>Tank 2 Burner No 2</td>
<td>1</td>
<td>Lanemark TX60N J20045/2</td>
<td>None</td>
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<tr>
<td>Burner 2 Exhaust Fan</td>
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<td>Fan Eng FE 024762</td>
<td>None</td>
<td>#5</td>
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<tr>
<td>Tank 2 circulation pump</td>
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<td>Godwin 80-65-200/2 22Kw</td>
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<td>None</td>
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<tr>
<td>Tank 2 dosing pump 1</td>
<td>1</td>
<td>LMI Milton Roy CEP181-362S2/2</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 2 dosing pump 2</td>
<td>1</td>
<td>LMI Milton Roy CEGA45P4T1/2</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 3 dip cleaner tank</td>
<td>1</td>
<td>None</td>
<td>#6, WWT</td>
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<tr>
<td>Tank 3 Burner No 3</td>
<td>1</td>
<td>Lanemark TX60N J20045/3</td>
<td>None</td>
<td>#7</td>
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<tr>
<td>Burner 3 Exhaust Fan</td>
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<td>Fan Eng FE 024667</td>
<td>None</td>
<td>#7</td>
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<tr>
<td>Tank 3 circulation pump</td>
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<td>Godwin 80-65-200/3 22Kw</td>
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<td>Tank 3 dosing pump 1</td>
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<td>LMI Milton Roy CEP181-362S2/3</td>
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<td>None</td>
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<tr>
<td>Tank 3 dosing pump 2</td>
<td>1</td>
<td>LMI Milton Roy CEGA45P4T1/3</td>
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<tr>
<td>Tank 3 lip air inlet</td>
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<td>Fan Eng FE 024832</td>
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<tr>
<td>Tank 3 lip exhaust</td>
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<td>Fan Eng FE 024836</td>
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<tr>
<td>Tank 4 dip rinse tank</td>
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<tr>
<td>Tank 4 stirrer</td>
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<tr>
<td>Tank 5 dip rinse tank</td>
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<td>Tank 5 stirrer</td>
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<td>Lightnin HP75 / 2</td>
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<tr>
<td>Tank 6 dip conditioner</td>
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<td>None</td>
<td>WWT</td>
<td></td>
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<tr>
<td>Tank6 Circulation Pump</td>
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<td>Tank 7 dip Zinc Phosphate</td>
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<td>#8, WWT</td>
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</tr>
<tr>
<td>Tank 7 lip extraction</td>
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<td>Fan Eng FE 024837</td>
<td>None</td>
<td>#8</td>
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<tr>
<td>Tank 7 Burner No 4</td>
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<td>Lanemark TX60N J20045/4</td>
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<tr>
<td>Burner 4 Exhaust Fan</td>
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<td>Fan Eng FE 024668</td>
<td>None</td>
<td>#9</td>
</tr>
<tr>
<td>Tank 7 circulation pump</td>
<td>1</td>
<td>Godwin 80-65-160/2 15Kw</td>
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<td>None</td>
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<tr>
<td>Tank 5 stirrer</td>
<td>1</td>
<td>Lightnin HP75 / 3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Component</td>
<td>Quantity</td>
<td>Model/Details</td>
<td>Media/Filter</td>
<td>Waste Treatment</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------</td>
<td>----------------------------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Tank 7 dosing pump 1</td>
<td>1</td>
<td>LMI Milton Roy CEGA45P4T1/4</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 7 dosing pump 2</td>
<td>1</td>
<td>LMI Milton Roy CEGA45P4T1/5</td>
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<td>None</td>
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<tr>
<td>Tank 7 band filter</td>
<td>1</td>
<td>Gravity fed filter</td>
<td>Waste filter media/sludge, skip</td>
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<tr>
<td>Tank 8 dip recycled water rinse</td>
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<td>None</td>
<td>WWT</td>
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<tr>
<td>Tank 8 Stirrer</td>
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<td>Lightnin HP75 / 4</td>
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<td>None</td>
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<tr>
<td>Tank 9 dip seal</td>
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<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Tank 9 Stirrer</td>
<td>1</td>
<td>Lightnin HP75 / 5</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 10 dip recycled water rinse</td>
<td>1</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Tank 10 Stirrer</td>
<td>1</td>
<td>Lightnin HP75 / 6</td>
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<td>None</td>
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<tr>
<td>Tank 11 dip deionised water rinse</td>
<td>1</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Tank 11 stirrer</td>
<td>1</td>
<td>Lightnin HP75 / 7</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 12 paint tank</td>
<td>2</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 12 ultrafilter pump</td>
<td>2</td>
<td>Godwin 85-65-200/1 18.5Kw</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Tank 12 UltraFilter Modules</td>
<td>2</td>
<td>Osmonics OSMO 819-ED7</td>
<td>None</td>
<td>Waste filter media, WWT</td>
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<tr>
<td>Tank 12 heat exchanger pump</td>
<td>2</td>
<td>Godwin 85-65-200/2 18.5Kw</td>
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<tr>
<td>Tank 12 heating tank</td>
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<td>None</td>
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<tr>
<td>Tank 12 Chiller</td>
<td></td>
<td>Air Blue Chill max 650/08</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 12 anolyte system</td>
<td>2</td>
<td>None</td>
<td>WWT</td>
<td></td>
</tr>
<tr>
<td>Tank 12 DC rectifier system</td>
<td>2</td>
<td>Drake power Supplies SO5152/1A-1C</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 13 ultrafiltrate rinse</td>
<td>2</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 13 stirrer</td>
<td>2</td>
<td>Lightnin HP75 / 8</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tank 14 ultrafiltrate rinse 2</td>
<td>2</td>
<td>None</td>
<td>WWT</td>
<td></td>
</tr>
<tr>
<td>Tank 14 stirrer</td>
<td></td>
<td>Lightnin HP75 / 9</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Curing oven</td>
<td>3</td>
<td>None</td>
<td>#1 #2 #3</td>
<td></td>
</tr>
<tr>
<td>Equipment Type</td>
<td>Quantity</td>
<td>Manufacturer</td>
<td>Model/Specs</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------</td>
<td>------------------</td>
<td>----------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Oven gas burner 1</td>
<td>3</td>
<td>Lanemark</td>
<td>FD20 MKIV J20045A/2</td>
<td>None</td>
</tr>
<tr>
<td>Oven gas burner 2</td>
<td>3</td>
<td>Lanemark</td>
<td>FD20 MKIV J20045A/1</td>
<td>None</td>
</tr>
<tr>
<td>Oven circulation fan 1</td>
<td>3</td>
<td>ElectroMotor</td>
<td>4Kw 1AT112M-4 / 1</td>
<td>None</td>
</tr>
<tr>
<td>Oven circulation fan 2</td>
<td>3</td>
<td>ElectroMotor</td>
<td>4Kw 1AT112M-4 / 2</td>
<td>None</td>
</tr>
<tr>
<td>Oven circulation fan 3</td>
<td>3</td>
<td>ElectroMotor</td>
<td>4Kw 1AT112M-4 / 3</td>
<td>None</td>
</tr>
<tr>
<td>Chemical storage bunded cabinets * 2</td>
<td>4</td>
<td>Empteezy Ltd</td>
<td>1B8DS</td>
<td>None</td>
</tr>
<tr>
<td>Chemical storage racking</td>
<td>4</td>
<td>None</td>
<td>Fugitive</td>
<td>None</td>
</tr>
<tr>
<td>Waste storage skip</td>
<td>5</td>
<td>None</td>
<td>Fugitive</td>
<td>None</td>
</tr>
<tr>
<td>Waste storage drums</td>
<td>5</td>
<td>None</td>
<td>Fugitive</td>
<td>None</td>
</tr>
<tr>
<td>Waste water treatment recycled water</td>
<td>6</td>
<td>PentAir Water</td>
<td>SF E119</td>
<td>None</td>
</tr>
<tr>
<td>Recycled water ion-exchange plant *2</td>
<td>6</td>
<td>Tapflo</td>
<td>T100-PEE</td>
<td>None</td>
</tr>
<tr>
<td>Alkali waste transfer pump</td>
<td>6</td>
<td>Tapflo</td>
<td>T100-PEE</td>
<td>None</td>
</tr>
<tr>
<td>Acid transfer pump</td>
<td>6</td>
<td>Tapflo</td>
<td>T100-PEE</td>
<td>None</td>
</tr>
<tr>
<td>Alkali waste storage tank</td>
<td>6</td>
<td>Franklin Hodge</td>
<td>5856/A037A/03AE</td>
<td>None</td>
</tr>
<tr>
<td>Paint waste storage tank</td>
<td>6</td>
<td>None</td>
<td>Fugitive</td>
<td>None</td>
</tr>
<tr>
<td>Acid waste storage tank</td>
<td>6</td>
<td>Franklin Hodge</td>
<td>5856/A037A/03AE</td>
<td>None</td>
</tr>
<tr>
<td>Water softener</td>
<td>6</td>
<td>PentAir Water</td>
<td>WS E103</td>
<td>None</td>
</tr>
<tr>
<td>Reaction tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Polyelectrolyte tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Settlement tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>pH correction tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>V notch tank</td>
<td>6</td>
<td>None</td>
<td>#13 (foul sewer)</td>
<td>None</td>
</tr>
<tr>
<td>HCl day tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>NaOH day tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>Polymer day tank</td>
<td>6</td>
<td>None</td>
<td>WWT</td>
<td>None</td>
</tr>
<tr>
<td>HCl dosing pump * 2</td>
<td>6</td>
<td>Tapflo</td>
<td>TR9-PTP</td>
<td>None</td>
</tr>
</tbody>
</table>
### Emissions to the environment

Table 3 (below) identifies the production equipment that discharge direct to environment via the identified emission point. Equipment and emission points that emit direct to the environment are classified as unabated emission sources. These external emission points are shown on plan PPC134/4.

<table>
<thead>
<tr>
<th>Plant or Equipment used</th>
<th>Abatement Type</th>
<th>Machine reference numbers</th>
<th>Emission Points</th>
<th>Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oven-Main Exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#1</td>
<td>TPM CO CO2 NOx SMOKE</td>
</tr>
<tr>
<td>Oven entry Exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#2</td>
<td>TPM CO CO2 NOx SMOKE</td>
</tr>
<tr>
<td>Oven exit Exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#3</td>
<td>TPM CO CO2 NOx SMOKE</td>
</tr>
<tr>
<td>Tank 1 &amp; 2 lip exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#4</td>
<td>Steam</td>
</tr>
<tr>
<td>Tank 1 &amp; 2 heater exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#5</td>
<td>TPM CO CO2 NOx SMOKE NH2</td>
</tr>
<tr>
<td>Tank 3 lip exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#6</td>
<td>Steam</td>
</tr>
<tr>
<td>Tank 3 heater exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#7</td>
<td>TPM CO CO2 NOx SMOKE NH2</td>
</tr>
<tr>
<td>Tank 7 lip exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#8</td>
<td>Steam</td>
</tr>
<tr>
<td>Tank 7 heater exhaust</td>
<td>Dispersion Stack</td>
<td></td>
<td>#9</td>
<td>TPM CO CO2 NOx SMOKE NH2</td>
</tr>
<tr>
<td>Tank 12 gas heating system</td>
<td>Dispersion Stack</td>
<td></td>
<td>#10</td>
<td>TPM CO CO2 NOx SMOKE NH2</td>
</tr>
<tr>
<td>Waste storage area</td>
<td>Containment</td>
<td></td>
<td>#11</td>
<td>Fugitive NA</td>
</tr>
<tr>
<td>Chemical storage area</td>
<td>Containment</td>
<td></td>
<td>#12</td>
<td>Fugitive NA</td>
</tr>
</tbody>
</table>

WWT – Waste Water Treatment plant. WWT refers to discharges to the waste water treatment plant, the plant itself discharges to emission point #13.
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended)
The Solvent Emissions (England and Wales) Regulations 2004

<table>
<thead>
<tr>
<th>Waste Treatment</th>
<th>Water Treatment</th>
<th>Ion exchange, filtration</th>
<th>#13 (Sewer)</th>
<th>TSS, COD, pH, Zn, Ni, Sn, NH3</th>
</tr>
</thead>
</table>

Legend: TPM – Total Particulate Matter, NH2 – Ammonia, CO – Carbon Monoxide, NOx – Oxides of Nitrogen, CO2 – Carbon Dioxide, Smoke – see condition 2.2.
TSS – Total Suspended Solids, COD – Chemical Oxygen Demand, pH – Acidity, Zn – Zinc (or its compounds), Ni – Nickel (or its compounds), Sn – Tin (or its compounds), NH3 – Ammonia, see condition 2.13.

5 – Waste storage element
All waste materials associated with activities and elements noted above are stored in appropriate sealed drums or containers and are stored within the designated bunded area inside the factory. All wastes are contained and stored in the specified waste storage areas marked on plan PPC134/2.

Solid wastes from the installation are stored in dedicated covered containers and are stored within the dedicated waste storage area within the main building. Such materials are removed outside the installation buildings only when removed for transfer to final disposal by an approved waste carrier or to store in the fully bunded skip storage area.

Water Treatment is an element technically connected and directly associated with the surface treatment and the coating activities in section 2.4(A2) and 6.4(Part B) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended).

6 – Water Treatment element

The water treatment aspects of the installation are complex. There are two separate water treatment processes on the site, recycling of rinse water using filtration and ion-exchange, and precipitation and settlement of spent process solutions and regeneration products from the ion-exchange system. However, both treatment systems discharge to the same sewer discharge point, and solid waste (precipitate) is stored in the designated waste storage areas (see 5 above).

Water Treatment is an element technically connected and directly associated with the surface treatment and the coating activities in section 2.4(A2) and 6.4(Part B) of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended).
Schematic Diagram of Coating process

To be supplied
Glossary of Terms/Definitions:

Activity: One or more stationary technical units falling within the defined sections of the Schedule 1 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended).

Clean: ‘Clean’ in reference to water shall mean water, which is used as a virgin product, i.e. mains water or abstracted water.

Dipping: The process of actually introducing the work piece into the coating.

E-coat: Abbreviation for Electrophoretic Coating. Normally refers to the material itself but can be used to refer to the electrophoresis process.

ELV: Emission Limit Values, those values stipulated in the SED or in guidance for emission of particular pollutants to atmosphere.

EPA: Environmental Protection Act, the former pollution control regime, now redundant due to the implementation of PPC.

Halogenated Organic solvent: shall mean an organic solvent which contains at least one atom of bromine, chlorine, fluorine or iodine per molecule.

Installation: One or more stationary technical units comprising at least one activity or activities falling within the description of Schedule 1 of the Pollution Prevention and Control Regulations 2000 (as amended) within a defined area.

LEV: Local Exhaust Ventilation, normally associated with small uncontained plant or equipment.

Organic solvent: Means 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.

Organic compound: Means any compound containing at least the element carbon and one or more of hydrogen, halogens, oxygen, sulphur, phosphorus, silicon or nitrogen, with the exception of carbon oxides and inorganic carbonates and bicarbonates.
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended)
The Solvent Emissions (England and Wales) Regulations 2004

PPC  Pollution Prevention and Control, the new pollution control regime replacing that under EPA.

Regulator  Means The Borough of Telford and Wrekin Pollution Control Section. When contacting the regulator it is not sufficient to contact any other part of the council other than the Pollution Control Section at the address specified in the additional notes or at the telephone numbers provided.

R-Phrase  Means the same as in Directive 67/548/EEC as follows:

<table>
<thead>
<tr>
<th>R Phrase</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>R40</td>
<td>Limited evidence of carcinogenic effects</td>
</tr>
<tr>
<td>R45</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>R46</td>
<td>May cause heritable genetic damage</td>
</tr>
<tr>
<td>R49</td>
<td>May cause cancer by inhalation</td>
</tr>
<tr>
<td>R60</td>
<td>May impair fertility</td>
</tr>
<tr>
<td>R61</td>
<td>May cause harm to the unborn</td>
</tr>
</tbody>
</table>

Designated risk phrase material means the designation or label given to a coating or preparation (as a whole). The fact that a preparation or coating contains r-phase chemicals does not in itself always make a material r-phrase.

Spalling  Spalling is a defect that is almost unique to electrolytic colouring, and it represents local disruption of the original anodic film leading to local film detachment. In very severe cases the film can become detached over large areas of the sample, but more usually small round pieces of film about 1 mm in diameter break away. The effect is caused by high colouring voltages or current densities and very long colouring times, and can be severely aggravated by contaminating ions such as sodium. It is probably most prevalent in nickel-based electrolytes, but can occur with most processes, like cobalt-based electrolytes. It is almost certainly caused by hydrogen generation within or beneath the barrier layer of the film, and the pressure produced can locally separate the film from the aluminium substrate.

SED  Solvent Emissions Directive or ‘COUNCIL DIRECTIVE 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations’

SER  Solvent Emissions (England and Wales) Regulations 2004
STU Stationary Technical Unit shall have the same meaning as in the Pollution Prevention and Control Regulations, but in summary shall mean, one machine used for the purpose of printing on flexible packaging or one machine used in connection with that activity, e.g. an RTO. There must be at least 1 STU per activity, but it is possible to have multiple STU’s still comprising only one activity.

Volatile Organic Compound (VOC) Shall mean any organic compound having at 293.15 K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.

The Regulations Means the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended)
1.1 The permitted installation shall consist of the plant and equipment mentioned in Table 2 (above). No other plant or equipment shall be used except where a formal written application has been submitted to, and approved by, the regulator.

2.1 There shall be no persistent visible emissions, other than steam or water vapour from the installation.

2.2 Emissions from combustion processes, (specifically plant with emission reference points denoted by the word ‘smoke’ in Table 3 above) shall not exceed the equivalent of Ringleman shade 1 as described in British Standard B.S.2742:1969 at any time.

2.3 Emissions from final point of discharge to atmosphere serving the emission points listed in Table 3 shall not exceed the following concentrations of the substances and chemicals listed in the Table 4 below:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrous Oxides (NOx)</td>
<td>100mgm⁻³</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>100mgm⁻³</td>
</tr>
<tr>
<td>Total Particulate Matter (TPM)</td>
<td>10mgm⁻³</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>50mgm⁻³</td>
</tr>
<tr>
<td>Ammonia (NH2)</td>
<td>5ppm v/v</td>
</tr>
</tbody>
</table>

It shall be a requirement for emission points listed in Table 3 to meet the particular pollutant emission concentrations listed for that emission point only. Not all emitted substances or chemicals apply to all emission points.

This condition shall remain suspended where the requirements of conditions 2.4, 2.6, 3.4 and 3.5 are complied with.

2.4 Annually, on the 1st April each year, the operator shall demonstrate by calculation, modelling or sampling as may be required, that the emission of VOC to atmosphere is less than or equal to the Target Emission or that compliant coatings are in use as per the requirements of Table 5 below:
Table 5 – Compliance alternatives

<table>
<thead>
<tr>
<th>Compliance Route</th>
<th>31st October 2005</th>
<th>31st October 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction Scheme</td>
<td>TE x 1.5</td>
<td>TE</td>
</tr>
</tbody>
</table>

Where: TE is Target emission
N/A indicates that the compliance method is unavailable

The target emission shall be calculated as follows:

(i) The operator shall calculate the Annual Reference Emission (ARE) defined as the total mass of solids in the quantity of coating consumed in a year multiplied by 1.5:

\[
ARE = \text{mass of solids in consumed coatings} \times 1.5
\]

(ii) The operator shall then calculate the Target Emission (TE) by multiply the ARE (calculated in (i) above) by 0.4:

\[
TE = ARE \times 0.4
\]

For the avoidance of doubt, the use of compliant coatings as a compliance method is not acceptable after 31st October 2005, thereafter, the requirements of the reduction scheme must be complied with.

Any calculation submitted to demonstrate compliance with this condition shall have regard to the diagram in Appendix 1 and shall show complete workings associated with the calculation. It is expected that where sampling can be undertaken to provide accurate data this is carried out and the results included within the calculations.

2.5 Where sampling is carried out, the concentrations of the substances sampled shall be expressed at reference conditions, 273K, 101.3kPa, without correction for water vapour content and the results of the monitoring shall be expressed in milligrams per cubic metre (mgm⁻³).

2.6 There shall be no offensive odour emitted from the installation detected beyond the site boundary as perceived by an officer of the regulating authority.
2.7 No piece of plant or equipment mentioned in condition 1.1 above (or any replacement used for the same purpose), shall be operated with an extraction point direct to atmosphere unless specifically noted within this document or specifically agreed in writing with the regulator.

2.8 The introduction of dilution air to emission stacks shall not be permitted.

In the event that an emission stack can be demonstrated to be compliant with conditions 2.3, or 2.4 (as required), dilution air may be added to render harmless a visible or odorous emission. Such dilution shall only be permitted where agreed in writing with the regulator.

2.9 Fuel used for the combustion plant (denoted by the word 'smoke' appearing in the list of pollutants) listed in Table 3 shall have a sulphur content of no more than 1% wt/wt sulphur in fuel, or, if gas oil is used, no more than 0.2% until 1st October 2008 and no more than 0.1% thereafter.

2.10 The final efflux velocity of all emissions from the final point of discharge to atmosphere serving the emission points listed in Table 3 shall not be less than 15 ms\(^{-1}\).

2.11 Chimneys and vents listed in Table 3 from which it is necessary to achieve dispersion of the residual pollutants shall discharge vertically upwards and shall not be fitted with any restrictive plates, caps or cowls at the final opening. Caps, cowls and restrictive plates shall be removed from the existing chimneys/vents, by 1st June 2006. Use of an accelerator cone to increase efflux velocity is permitted.

2.12 Within a period not to exceed 2 years from the date of issue of this permit and to be agreed in writing with the regulator, emission points listed in Table 3 shall be altered to new heights calculated in accordance with the procedural document D1 entitled, "The Determination of Discharge Stack..."
Heights for Polluting Emissions”, published by HMIP or another standard to be agreed with the regulator. The height, as calculated, shall be agreed with the regulator prior to works being carried out.

Notwithstanding the above, emissions consisting solely of particulate matter shall not require a calculation to be carried out, and, in accordance with the requirements of D1, the effective discharge height is reduced to ground level.

Any final points of discharge to atmosphere shall be maintained at the minimum height as calculated in this condition for the lifetime of the plant. Where guidance, plant or equipment, or the nature of emissions changes; the calculations required in this condition shall be repeated and the heights modified accordingly.

2.13 Effluent emissions from final point of discharge to water serving the emission points listed in Table 3 shall consist only of trade effluent. The nature and composition of the effluent shall be such that it does not exceed the following concentrations of the substances and chemicals listed in Table 6 below:

<table>
<thead>
<tr>
<th>Effluent</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Suspended Solids (TSS)</td>
<td>400mg/l</td>
</tr>
<tr>
<td>Temperature</td>
<td>Not to exceed 43°C</td>
</tr>
<tr>
<td>Chemical Oxygen Demand (COD)</td>
<td>1000mg/l (expressed as O)</td>
</tr>
<tr>
<td>Acidity (pH)</td>
<td>To fall between 6-10</td>
</tr>
<tr>
<td>Physically Separable Oil</td>
<td>None</td>
</tr>
<tr>
<td>Zinc (or its compounds) (Zn)</td>
<td>2.5mg/l</td>
</tr>
<tr>
<td>Nickel (or its compounds) (Ni)</td>
<td>1mg/l</td>
</tr>
<tr>
<td>Tin (or its compounds) (Sn)</td>
<td>2mg/l</td>
</tr>
<tr>
<td>Ammonia (NH3)</td>
<td>50mg/l</td>
</tr>
<tr>
<td>Maximum volume of discharge</td>
<td>250m³/day</td>
</tr>
<tr>
<td>Maximum rate of discharge</td>
<td>3 l/s</td>
</tr>
</tbody>
</table>

All effluents are controlled, as a minimum, to avoid a breach of water quality standards. The Environment Agency, the Sewerage Undertaker or the regulator may require monitoring, calculations and/or modelling to demonstrate compliance.
2.14 Run-off from identified raw material storage areas shall be channelled/transported to a suitable effluent treatment plant, e.g. an interceptor, where necessary to prevent or minimize discharge of pollutants to surface waters and sewers. Areas to which this condition applies shall be specified in writing by the regulator.

2.15 Where installed, all effluent treatment plant, e.g. interceptors, for the site shall be:
- impermeable;
- visually inspected weekly and;
- have an annual maintenance inspection. Prior to this inspection all contents shall be removed.

2.16 No process effluent shall be channelled or transported from the site unless first directed to a suitable effluent treatment plant or otherwise agreed in writing by the regulator.

This condition shall not apply where road-going tankers collecting effluent from storage tanks and transporting the effluent to a suitably licensed point of final disposal.

2.17 Delivery connections to bulk liquid storage tanks shall be located within the bunded areas noted in condition 2.19, and shall be locked when not in use.

2.18 All fixed storage tanks (excluding oil storage) shall be fitted with high-level alarms or volume indicators to warn of over-filling. Where practicable, the filling systems shall be interlocked to the alarm system to prevent overfilling.

The operator shall supply a plan of the site indicating the location of the fixed storage tanks, their contents, and maximum capacity together with the location of any associated fixed above or below ground pipework.

The plan shall be submitted within 3 months of the issue of this permit and updated (and resubmitted) as may be necessary where changes occur or new plant is installed.
2.19 Each storage tank shall be clearly labelled with:

- A reference number consistent with the plan required to be submitted by condition 2.18
- The tank maximum volume
- The tank contents
- Any relevant hazard warnings

2.20 Every storage tank shall be surrounded by a bunded area impervious to the material being stored in the tank. The bunded area shall be capable of storing 110% of the capacity of the largest tank within the bund.

The integrity of storage tanks and bunds shall be inspected, recorded and documented, particularly where corrosive substances are involved. Such inspections shall take place at least every three months or as indicated on the operator's maintenance schedule prepared for condition 9.1 below.

These inspections should be included in the maintenance schedule required by condition 9.1 and copies stored with the logbook required to be kept in accordance with condition 9.5.

2.21 Other than those identified in this document, there shall be no effluent emissions to sewer or surface water drainage without the prior consent of the regulator and the prior consent of Severn Trent or Environment Agency as may be necessary. The operator shall make a written application to the regulator at least 28 days prior to any intention to discharge waste effluent to sewer or surface water drainage.

2.22 The effluent transport system (including any subsurface plant, equipment, tanks, drains, sewers, sumps, or storage vessels) shall, where necessary, be inspected and surveyed at least once every three years for the following:

- Establish a record of all subsurface drains, sewers, plant, equipment, sumps or storage vessels to include the routing of all pipework.
- Produce an inspection and maintenance record for all subsurface drains, sewers, plant, equipment, sumps of storage vessels, which involves as necessary, pressure or leak tests, materials thickness checks or camera surveys.

Where an inspection determines that subsurface infrastructure is leaking, arrangements shall be made to repair, isolate or otherwise contain the leak, and the regulator shall be notified immediately.

2.23 There shall be no defects in the concrete hard standing within the area of the installation as designated on the Plan PPC134/3. Moreover, as far as is practicable, joints between concrete pads shall be effectively sealed so as to provide an impervious surface.

Where a defect is noted in accordance with the requirements of condition 3.8, action shall be taken to rectify the defect within 6 weeks of identification. For the purpose of this condition, a ‘defect’ is any break in the concrete hard standing that will allow liquid spillages to drain away into the sub soil. For the purpose of this condition ‘rectified’ shall mean repair of the defect such that liquid spillages can no longer enter the subsoil.

3.1 The process shall be observed for visible emissions at least once per day, or more often as may be prescribed in writing by the regulator, when the installation is operating, from a point providing an unimpeded view of the emissions points for the permitted process. In the event of visible emissions being observed, immediate action shall be taken to determine the cause of the emission, and action shall be taken to abate the emission.

Contingency arrangements shall be instigated to prevent or reduce to a minimum any further visible emissions caused by the malfunction.

The regulator shall be notified of any such occurrence as soon as practicable.
The results of the observations shall be recorded in the logbook (required to be kept by condition 9.5), along with details of remedial action taken.

3.2 A daily assessment shall be made for odour emissions from the installation while it is operating normally for such a period as may be specified by the regulator. The assessment shall be made at a point on the process boundary where such an emission is most likely to be detected (i.e. downwind), taking into account the wind direction, source of odour, nearest neighbour, etc. The assessment must be made by a responsible person who has been instructed to carry out these duties. A record of all olfactory assessments shall be entered into the logbook required to be kept in accordance with condition 9.5. The records shall include a subjective assessment of the nature and severity of any odour detected.

If excessive odour emissions are detected, immediate action shall be taken to determine the cause of the emission and to resolve the malfunction responsible for the emission. Contingency arrangements shall be instigated to prevent or reduce to a minimum any further odour emissions caused by the malfunction.

The regulating authority shall be notified of any such occurrence as soon as practicable.

3.3 Where compliance is required to be demonstrated for emissions from the final point of discharge to atmosphere serving the emission points listed in Table 3, they shall be sampled for concentrations of the substances listed within that table on an annual basis.

All sampling shall be carried out in accordance with recognised standards as agreed with the regulator prior to monitoring taking place. In all cases this shall be to the MCERTS, or equivalent, standards for both procedures and personnel. The proposed test methods for measuring compliance with emission concentration limits shall be forwarded to the
The regulating authority must be advised at least 7 days in advance of any periodic monitoring exercise giving the date, time and place of sampling and the pollutants to be tested.

Results shall be expressed in accordance with the requirements of condition 2.5 and the results of monitoring to be supplied to the regulating authority within 28 days of completion of the monitoring. Monitoring reports shall be submitted in both paper copy and electronic format.

The requirement to provide monitoring results for VOC shall not apply where the reduction scheme requirements (condition 2.4) are complied with. Any monitoring required to be carried out in order to demonstrate compliance with the reduction scheme shall be carried out in accordance with this condition.

The requirement to provide monitoring results for CO, CO2 and NOx shall not apply where Low NOx burners are installed and the operator can demonstrate maintenance requirements in accordance with condition 9.1.

The requirement to provide monitoring results for TPM shall not apply where the requirements of condition

3.4 Emissions from the final point of discharge to atmosphere serving the abatement plant serving the Curing ovens in Table 3 shall be continuously monitored and continuously recorded for Carbon Monoxide emissions. The continuous monitoring equipment shall be connected to a visual and audible alarm that shall be set to trigger at a reference level to be agreed with the regulating authority.

Emission events that lead to the triggering of an alarm shall be recorded in the log book required to
be kept in accordance with condition 9.5 along with details of the investigation into what caused the event.

The continuous monitor shall be calibrated every 12 months (or more frequently if necessary) in accordance with manufacturers’ instructions.

The continuous monitoring device noted in this condition shall be replaced with a suitable MCERTS accredited device by 1st April 2009.

This condition shall remain suspended where Low NOX burners are fitted to supply heat to the oven and the operator can demonstrate maintenance requirements in accordance with condition 9.1.

3.5 The temperature of curing ovens, and all heated tanks shall be continuously monitored for temperature and shall operate within a temperature range to be agreed with the regulating authority. The curing ovens and the heated tanks shall be fitted with an audible and visual alarm to be triggered in the event that the plant ceases to operate within the agreed temperature range.

Any activation of an alarm to be recorded in the log book required to be kept in accordance with condition 9.5.

3.6 No result from a continuous monitoring equipment referred to in condition 3.4 above shall exceed the emission concentration limits specified in condition 2.3, except where:

- data is obtained over at least 5 sampling hours in increments of 15 minutes or less; or
- at least 20 results are obtained where sampling time increments of more than 15 minutes are involved;

and in such circumstances:

- no more than 5% of all 15-minute mean emission concentrations should exceed the specified emission concentration limits (during normal
operating hours (excluding start-up and shut-down);

- no 15-minute mean emission concentration should exceed twice the emission concentration limits specified in condition 2.3; and where continuous monitoring is undertaken, compliance with this condition shall be demonstrated on a daily basis.

A summary of the continuous monitoring results shall be supplied to the regulating authority every 6 months. Such a summary shall clearly highlight any results that breach the limits stipulated in condition 2.3 or any part of this condition.

3.7 The operator shall prepare a list of all emission points, and related pollutant emissions to atmosphere based on Table 3 (above). The operator shall provide details of the emissions of those pollutants to atmosphere as a result of any sampling that may be carried out (see conditions 3.3, 3.4 and 3.6) or data gathered (see condition 2.9).

Where sampling is carried out, no correction for atmospheric pressure or water vapour shall be made.

The operator shall also submit for each point of emission to atmosphere details of stack height, volume flow rate and stack diameter, as well as the height, width and length of the building to which the stack (or stacks) are attached.

The results shall be tabulated and submitted in Microsoft Excel format and shall be sent to the following email address (or another to be specified by the regulator):

environmental.health@telford.gov.uk

Such information shall be submitted as and when requested by the regulator.

3.8 The operator shall carry out regular monitoring of the discharge noted in condition 2.13 above as follows:

- 12 samples shall be taken each year.
all samples shall be analysed for suspended solids and biochemical oxygen demand
all samples shall be analysed at a NAMAS accredited laboratory
a record shall be made of any visible oil in the discharge at the time of sampling.

The operator is required to report their monitoring results to the regulator within 60 days of a sample being taken.

A sample shall consist of results for each of the criteria listed in the Table 6 of condition 2.16 for each of the discharges noted in Table 3.

All results shall be recorded in the logbook required to be kept by condition 9.5 and be kept available for inspection by the regulator or a duly authorised officer of the Environment Agency.

3.9 The operator shall carry out a visual inspection of the discharges noted in 3.8 and 3.10 above on a weekly basis and at the time of sampling. Records of these observations shall be kept on site and made available for inspection by the regulator or duly authorised officer of the Environment Agency upon request.

3.10 The discharge into the effluent treatment plants shall be sampled for the presence and concentration of the following chemicals:
  Total organic carbon
The sampling shall take place at the same frequency as that required by condition 3.8 and 3.10 above and the results shall be used to help compile the data for condition 11.3.

This condition shall be suspended where the amount of volatile organic compounds lost to water can be demonstrated or inferred to be negligible within the calculation required for condition 11.2.

3.11 The Environment Agency have not requested any specific ground water monitoring as a result of...
Regulation 13 of the Regulations, however, they have advised that you should be aware of the following guidance all available from the Environment Agency website:

PPG1 – General Guide to prevention of water pollution
PPG2 – Above ground oil storage tanks
PPG8 – Storage and Disposal of used oils
PPG11 – Preventing pollution at industrial sites
PPG18 – Control of Spillages and fire-fighting run off
PPG21 – Pollution incident response planning
PPG26 – Storage and handling of drums and intermediate bulk containers

NB. It should be noted that groundwater monitoring is carried out under the requirements of separate legislation by the Environment Agency, such monitoring does not form part of this permit and is essentially a record of historic contamination. Groundwater contamination issues are dealt with under separate legislation by the Environment Agency.

3.12 External surfaces of the process building, ancillary plant and open yards and storage areas shall be inspected at least annually and cleaned as may be necessary to prevent the accumulation of dusty material. Particular attention shall be paid to roofs, guttering, roadways, external storage areas and yards. Cleaning operations shall be carried out by methods which minimise emissions of particulate matter to air.

A formal record of the inspections shall be retained and held with the log book required to be kept under condition 9.5.

3.13 The concrete hard-standing covering the installation designated in plan PPC134/3 shall be inspected on an annual basis. Defects in the concrete hard standing shall be identified and results shall be included in the log book required to be kept by condition 9.5. ‘Defects’ shall have the meaning prescribed in condition 2.28. Particular attention
shall be given to areas surrounding storage tanks, within bunded areas, waste storage areas, and raw material storage areas. All defects shall be dealt with as required by condition 2.28 (above) within 6 weeks of the inspection.

3.14 The storage areas for waste and for raw materials identified in accordance with condition 4.3 hereinafter referred to as storage areas, shall be assessed for the following:
- maximum storage capacity
- maximum storage period
- suitability to store the specified material

The storage areas shall be inspected once per month to check that capacity, period of storage or the materials stored conform to those specified for that particular repository. The results of the monthly inspection shall be included in the log book required to be kept by condition 9.5.

4.1 The raw materials used in the installation and all waste materials produced from the installation shall be handled with care to prevent or reduce to a minimum any emissions to the environment.

4.2 Spillages of liquids and finely divided materials outside the process buildings shall be cleaned up immediately. Liquid spillages shall be contained and cleaned up by the use of a suitable absorbent material. Spillages of finely divided or powdery materials shall be removed by vacuum cleaning using an industrial grade vacuum cleaner or by wet cleaning methods. Dry sweeping methods shall not be permitted. Sweeping and movement of powdery materials using uncovered containers is prohibited unless the material is thoroughly damped to prevent wind entrainment.

4.3 All raw materials delivered to the installation, and waste materials generated by the installation, shall be placed in areas of site designated for storage. These storage and waste areas are designated on the plan PPC134/2.
No raw material or waste shall be stored anywhere other than in the areas so designated.

All designated areas shall be capable of containing the raw material or waste contained therein, and prevent overflow onto surrounding areas. Where damage accrues to containment for these areas, this damage shall be repaired as soon as it practicable and in any case no longer than 4 weeks from the date of detection of the damage after the inspection (see below).

The operator shall inspect the designated areas on a monthly basis to ensure that materials or waste are adequately contained. The results of the inspections along with any remedial work shall be recorded in the log book required to be kept by condition 9.5.

4.4 Any accumulation of waste or raw materials found outside the areas designated by condition 4.3 above shall be considered a spillage and shall be dealt with in accordance with the requirements of condition 4.2 above.

4.5 Mixing of coatings with solvents should be carried out in covered or enclosed mixing vessels or within designated areas, as required to meet the compliance limits stipulated in condition 2.4 and the fugitive emission limit in condition 11.1 or the reduction scheme in condition 2.4.

For the purpose of this condition the e-coat tanks are considered designated areas.

4.6 In order to demonstrate BAT and minimise fugitive emissions, the emissions from the emptying of mixing vessels and transfer to spray guns shall be adequately contained to minimise emissions of fugitive VOCs, by the use of closed transfer systems. This may be achieved by the use of enclosed mobile containers, containers with close-fitting lids, or, enclosed containers with pipeline delivery. Programmable scales shall be used during the mixing and preparation of coatings to reduce solvent usage.
4.7 Application of cleaning solvents shall either be:
- From a contained device or automatic system when applied directly on to surfaces to be cleaned.
- Dispensed by piston type dispenser or similar contained device, when used on wipes.
- via the use of Pre-impregnated wipes which shall be held within an enclosed container prior to use.

Solvent Wipes and other items contaminated with solvent shall be placed in a suitably labelled metal bin fitted with a self-closing tightly fitting lid. Bins shall be emptied at least daily. Special bins that allow air to circulate beneath and around them to aid cooling shall be used for materials that may undergo spontaneous combustion.

4.8 Where cleaning solvents are decanted into other containers they shall be contained in self-closing containers with tightly fitted lids.

A review programme shall be undertaken to determine whether organic solvent free cleaning fluids or significantly less volatile organic solvent cleaning fluids can be used (with or without the addition of mechanical, chemical or thermal enhancements) in preference to the traditional solvent based cleaners in use at the date of issue of this permit. The evaluation shall be completed within 3 months of issue of the permit and shall provide details of potential substitute cleaning materials. Where materials are identified that can replace existing cleaning solvents, these shall be placed in use within 3 months of completing the review programme.

The review programme itself shall be repeated every two years from the date of issue of this permit. A copy of the review programme shall be kept with the log book required to be kept by condition 3.3.

4.9 Where equipment is cleaned using solvents, it shall be carried out in enclosed cleaning systems. Enclosed cleaning systems shall be sealed to
prevent escape of emissions whilst in operation, except during purging at the end of the cleaning cycle. Purging of any cleaning systems in use shall only be through the fully operational LEV or solvent recovery plant, and all such cleaning solvents shall feature in the calculations required for condition 11.2.

4.10 The jig cleaning process shall be carried out inside the installation building. The cleaning process shall be carried out within an area designated for that operation. All waste residues shall be dealt with as a required by conditions 4.1 and 4.3.

4.11 The operator shall carry out a review of coating technology to determine the most efficient technology for the application of the coatings used within the installation. The review shall include:
- A trial or desk top assessment of no solvent (water based) or powder coating based technologies
- A review of the coating materials available
- A trial or review of the application technology, to include technologies designed to ensure high transfer efficiency and minimise energy consumption and waste
- A review and/or update of the training requirements for staff concerned with application of coatings.
- A review of technologies or processes for cleaning of jigs
- Dates for implementation of the new BAT application technology or procedures

The review shall be carried out by 31st October 2005 and every two years thereafter and the results shall be kept with log book required to be kept by condition 9.5.

4.12 The operator shall seek to implement any improvements derived from the review required to be carried out by condition 4.11 within a time scale to be agreed in writing with the regulator. Where cost is cited as a reason for delaying implementation, the review in 4.11 above shall be accompanied by a suitable cost benefit analysis. In no circumstances
shall implementation of BAT technologies or procedures take longer than 12 months without the express written consent of the regulator.

4.13 Drums and containers containing liquid materials, whether full, partly full or empty, shall be stored in a secure, well-ventilated storage area away from other products. All full, partly full or empty drums and containers shall be kept tightly closed to prevent any emissions to air.

4.14 A locking device shall be securely attached to bulk storage tanks such that delivery or collection cannot take place without removal of the device. The unlocking mechanism shall be held by the nominated person or persons who shall be responsible for securely locking and unlocking the device before and after each transfer to or from the tanks.

4.15 No transfer shall take place to any tank without the express permission of the nominated person. Loading or unloading shall only take place when the driver of the vehicle discharging to the tank (or collected from a tank) has been advised of the procedure to be followed.

This condition shall not apply to computer controlled transfers that have failsafe automatic delivery controls, in such circumstances condition 4.17 below shall apply.

4.16 The following procedure shall be used for the delivery of materials to tank or transfer between tanks:
(a) The nominated person shall be notified on the arrival of a bulk delivery or of a request to transfer between tanks.
(b) The nominated person shall confirm that there is sufficient capacity in the tank to accept the quantity to be delivered or transferred.
(c) The nominated person shall ensure that:
   i. The nature of the material to be delivered to the tank is consistent with materials already present such that no adverse chemical reaction can take place
ii. That the person responsible for the delivery or transfer is competent to do so.

(d) The driver and the nominated person shall inspect the delivery lines and check them for signs of damage or wear, the driver shall connect the delivery lines and the driver and the nominated person shall check the connections are properly made.

(e) Only after conditions (a) to (c) have been complied with shall delivery commence.

(f) Where any alarm sounds, or the level indicator on the tank suggests the tank is full, delivery shall cease immediately.

This condition shall not apply to computer controlled transfers that have failsafe automatic delivery controls, in such circumstances condition 4.17 below shall apply.

4.17 All computer controlled transfer of liquids to and from storage tanks, process tanks or treatment works, shall be fitted with failsafe systems, such that, in the event of failure of pumps, control systems, sensors or any other part of the system, an alarm shall sound and the transfer shall cease.

The alarm system and the efficacy of the control systems shall be checked in accordance with the manufacturers instructions and in any event at least once per year. Any faults on the control system shall be recorded along with the corrective action taken and the details kept in the log book required to be kept by condition 9.5.

Any fault that results in a spillage of liquid shall be reported to the regulator immediately and the process stopped until the fault can be rectified.

5.1 The operator shall:

➢ Carry out a survey of the installation and identify any plant or equipment likely to give rise to noise. The survey shall specifically identify plant or equipment capable of being heard at the installation boundary.
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The operator shall provide the above information by <<date>> and thereafter shall update the information upon written request from the regulator. All documentation required to be produced by this condition shall be retained in the log book required to be kept in accordance with condition 9.5.

5.2 It shall be an absolute requirement that any new plant or equipment brought into the installation, or any plant or equipment that undergoes significant modification, shall demonstrate Best Available Technique (BAT).

Unless already meeting BAT requirements, the operator shall demonstrate that sound power levels for substantially changed plant or equipment shall be lower than for existing. The procedure listed in condition 5.3 below shall be used.

5.3 No new plant or equipment shall be permitted within the installation except where:

(i) The plant or equipment can be demonstrated to have a minimal environmental impact. For the purpose of this condition ‘minimal’ shall be taken to mean that, the plant or equipment, if monitored under requirements of BS4142:1997, has a rating level of −10dB (when compared to the background level), or is otherwise inaudible.
or

(ii) Where plant or equipment cannot be demonstrated to meet the standard above, a full noise survey shall be carried out and the results modelled to show the specific impact of the new plant or equipment on the environment. The modelling exercise shall take account of any relevant noise abatement measures. The results of the modelling shall be submitted to the regulator and shall demonstrate BAT.

The modelled plant or equipment shall be permitted within the installation only where written consent of the regulator has been obtained.

5.4 In the event of the regulator receiving a complaint of noise associated with any element or activity within the installation boundary, the operator shall:

(i) Be required to investigate the source of the complaint within 48hrs of receipt of the complaint.

(ii) Carry out such monitoring, surveys or modelling of the source of the complaint to demonstrate within a time period to be agreed with the regulator and to the satisfaction of the regulator, either:

(a) that the complaint is unfounded, or

(b) the complaint has substance

Where (ii)(b) above is found to be the case, the operator shall arrange to carry out such works or change procedures or processes in such a way, that a re-assessment carried out in (ii) above comes to the conclusion in (ii)(a).

6.1 The operator shall:

- Maintain an inventory covering the principal types of raw materials used (as listed in Table 1). The inventory shall be submitted to the regulator annually.
- Review alternatives for the principal types of raw materials used with regard to their environmental impact. Notably this shall include, water
consumption, alkali usage and additives used within the surface treatment process. Such reviews shall be submitted to the regulator every four years.

- Maintain records to demonstrate that quality control procedures are used to minimise any potential adverse environmental impact of the use or storage of raw materials
- Undertake to complete any long term studies needed into the less polluting options and make any material substitutions identified within the review period. Such studies will be identified as and when required by the regulator and requested in writing.

All information required by this condition shall be submitted to the regulator annually, or where such information is requested every four years from the date of issue of the permit as may be required for long term studies. All such information shall be retained by the operator and kept with the log book required to be kept in accordance with condition 9.5.

6.2 The operator shall demonstrate that a systematic approach to the reduction of waste at source is being used.

The operator shall carry out a waste minimisation audit within 18 months of issue of the permit and thereafter at the written request of the regulator. The methodology used and an action plan for optimising the use of raw materials shall be submitted to the regulator within 2 months of completion of the audit.

Specific improvements resulting from the recommendations of audits shall be carried out within a timescale approved by the regulator.

6.3 The operator shall, within 4 weeks of submitting the information required by condition 6.1, also calculate the following indicators of waste minimisation performance expressed as a ratio:

(i) tonnes of paint consumed v tonnes of good product
(ii) tonnes of solid waste produced v tonnes of good product
(iii) tonnes of liquid waste produced v tonnes of good product
(iv) volume of ‘clean’ water consumed v tonnes of good product
(v) Volume of water recycled v tonnes of good product

All such information shall be retained by the operator and kept with the log book required to be kept in accordance with condition 9.5.

Where any of the above parameters are not specifically monitored, arrangements shall be made to undertake monitoring of the use of the material within 8 weeks of issue of this permit.

6.4 Rinse water from the rinse tanks shall be recycled where possible in preference to the use of ‘clean’ water.

6.5 The operator shall arrange to measure the monthly volume of mains water used in the installation. All measurements should be recorded and the records held on site.

7.1 As far as is practicable, all raw materials to be coated shall be kept under cover so as to prevent unnecessary soiling of the product.

7.2 The operator shall ensure that the all tanks required to be heated are maintained at the correct operational temperatures as noted within condition 3.5, and agreed in writing with the regulator.

7.3 Where gas-fired heating systems are used for the purpose of heating or curing or other activities within the installation, particular attention shall be paid to good cleaning and maintenance of burner systems.

7.4 The operator shall produce an annual report on the energy consumption of the installation. The report shall monitor energy usage for the installation and identify target areas for reduction and shall be
updated annually. ("Sankey" diagrams and energy balances would be useful as aids.)

The operator shall also produce a comment on the above report and account for the following issues:
- heat recovery from different components of the processes
- minimisation of water use and closed circulating water systems
- good insulation of heated tanks/galvanizing bath
- plant layout to reduce pumping distances
- phase optimisation of electronic control motors
- optimised efficiency measures for combustion plant e.g. air/feedwater preheating, excess air etc.

7.5 The operator shall ensure that all plant listed in Table 2 is operated and maintained to optimise the use and minimise the loss of energy.

7.6 The operator shall within 4 weeks of submitting the information required by condition 7.4, also calculate the following indicators of energy efficiency performance expressed as a ratio:

(i) Gas consumed v good tonnes produced.
(ii) Electricity v good tonnes produced.

All such information shall be retained by the operator and kept with the log book required to be kept in accordance with condition 9.5.

Where any of the above parameters are not specifically monitored, arrangements shall be made to undertake monitoring of the use of the energy source within 8 weeks of issue of this permit.

7.7 In respect of energy efficiency, the operator shall meet the requirements of either:
(i) Climate Change Agreement (CCA), or
(ii) Direct Participation Agreement (DPA);

in addition to the requirements of conditions 7.1 to 7.6 (above).
Where neither (i) nor (ii) above are complied with the operator shall notify the regulator immediately.

7.8 When not in use the operator shall arrange to completely cover all tanks containing heated liquids.

For the purpose of this condition, ‘not in use’, shall be taken to mean, periods of longer than 1 hour between dipping, placing (or removing) of material into the baths.

8.1 The operator shall produce an accident management plan that identifies the hazards, assesses the risks and identifies the measures required to reduce the risk of potential events or failures that might lead to an environmental impact. The plan shall identify:
- the actions to be taken to minimise these potential occurrences; and
- the actions to deal with such occurrences so as to limit their consequences

In the case of abnormal emissions arising from an accident, such as a spillage for example, the operator shall:
- investigate immediately and undertake remedial action as soon as practicable
- promptly record the events and actions taken
- ensure the regulator is made aware, as soon as practicable

In the event of an accident occurring, the operator shall follow the prescribed instructions within the accident management plan. In an emergency situation it shall be sufficient to demonstrate that any divergence from the plan was necessary either:
- in the interests of health and safety
- as a result of instructions from a suitably qualified member of the emergency services (fire, ambulance, police)
- as a result of instructions from a duly authorised officer of the Health and Safety Executive
- as a result of instructions from the regulator.

The accident management plan shall be reviewed annually and a copy shall be submitted to the

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9.1 Effective operational and maintenance systems shall be employed on all aspects of the installation where failure could impact on the environment. In particular there shall be:

- documented operational control procedures
- a documented preventative maintenance schedule, covering all plant where failure could lead to impact on the environment, including major 'non productive' items such as tanks, pipework, retaining walls, bunds, ducts and filters. This shall be reviewed and updated annually
- a documented cleaning schedule covering all plant and equipment that could potentially cause an environmental emission through not being clean. The schedule shall also include roadways and buildings and tanks and bunding in accordance with conditions 2.16 and 2.20 respectively.
- documented procedures for monitoring of emissions to include duration, frequency, type and appropriate reference standard where applicable.

Operation and maintenance procedures shall be updated from time to time as may be necessary to account for changes in working practice or plant and machinery, chemical or procedures used. If the procedures change, a copy of the new procedures shall submitted to the regulating authority within 14 working days from changes being made.

In terms of emergency maintenance, spares and consumables, in particular, those subject to continual wear shall be held on site or shall be available at short notice so that plant breakdowns can be rectified rapidly.

9.2 Relevant staff at all levels shall receive the necessary formal training and instruction in their duties relating to control of the process and
emissions to the environment. Such training shall include the following:

- awareness of the regulatory implications of the permit
- awareness of all potential environmental impacts under normal and abnormal circumstances
- awareness of the procedures for dealing with a breach of the permit conditions
- prevention of accidental emissions and action to be taken when accidental emissions occur
- awareness of all operating procedures

Records shall be kept which detail all relevant training provided to staff. The records shall be made available for inspection by an authorised officer from the regulating authority. Records of training shall be retained for two years.

The operator shall appoint a suitably competent person to liaise with the regulator and members of the public in the event of complaint. The designated person shall be notified to the regulator within 14 days of issue of the permit and, where that person changes, within 14 days of any change. The requirement to have a competent person liaising with the regulator does not reduce the requirement to adequately train staff in terms of environmental awareness.

9.3 If there is any intention to change any aspect of the installation from the description of the process at the beginning of this permit, or any other aspect which may affect the substances or concentration of substances being emitted to the environment, the regulator shall be notified of the proposed changes at least 4 weeks before the changes take place.

9.4 Any malfunction which results in emissions to the environment which are likely to cause an adverse effect on the local community shall be reported to the enforcing authority immediately, and a record shall be made of the incident within the logbook required by condition 9.5.
9.5 A logbook shall be established and maintained which records all information required to be kept by conditions of this permit, this includes details of procedures, results of sampling, record of all visual and olfactory observations, maintenance records and any other information required to be recorded and kept by conditions of this permit.

The information shall be recorded in a form to be agreed with the regulator but can include both electronic and hard copies, and shall be retained for at least two years. This information shall be made available for inspection by an authorised officer of regulating authority on request. Where information is updated or modified, copies of the modified information shall replace those held within the logbook.

9.6 The operator shall supply an A4 plan in both electronic and paper format, showing the emission points to the environment as listed in Table 3 above, within 14 days of issue of this permit.

10.0 A site decommissioning plan shall be submitted to the regulator within 4 months of issue of this permit. The plan shall be prepared and updated as may be necessary due to changes in plant, equipment or materials used within the installation. In any event the changes to the plan, it shall be reviewed and resubmitted every 3 years from the date of the first submission. The plan shall include:

- A complete methodology to be adopted in the decommissioning of the installation, to include:
  - Removal of key plant or machinery likely to be contaminated
  - Removal of contamination associated with the plant and machinery
  - Minimising any contamination from the installation buildings during demolition
  - Removal of contaminated subsurface infrastructure as may be necessary

- An assessment of the impact of decommissioning on the nearest sensitive receptors
- The Preparation of a ground contamination report to include the testing of soil within the

Decommissioning the Installation

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decommissioned installation to demonstrate contamination levels are no greater than those submitted in Operators application site reports.

11.1 The operator shall construct an inventory of solvent use within the installation. The inventory shall be carried out by recording:

(i) The mass of solvent contained in inks, coatings, diluents and cleaners in the initial stock ($I_S$) at the start of the accounting period, plus

(ii) The mass of solvent contained in inks, coatings, diluents and cleaners in the purchased stock ($P_S$) during the accounting period

(iii) Minus The mass of solvent contained in inks, coatings, diluents and cleaners in the final stock ($F_S$) at the end of the accounting period

Then Total Solvent Input ($I_1$) = $I_S + P_S - F_S$

The inventory shall specifically and separately identify any VOCs carrying any of the R-Phrases as prescribed within the Solvent Emissions (England & Wales) Regulations 2004.

Further, having calculated total solvent Input ($I_1$), the operator shall then calculate solvent consumption by subtracting from the Input figures any solvent that is sent out for recovery.

Hence: $C$ (consumption) = $I_1 - O_8$

The inventory and consumption data shall be submitted to the regulating authority on 1st April and 1st September for the preceding 6 months solvent use, every year. (see Appendix 1).

11.2 Based on the data compiled for condition 11.1, and the descriptions in Appendix 1, the operator shall calculate the actual solvent emission applicable to the installation on an annual basis in order to demonstrate compliance with condition 2.4 above.
To demonstrate compliance with the requirements of condition 2.4 above, the operator shall determine the Actual Solvent Emission (A) from the activity using the following:

\[
\text{Actual Solvent Emission (A)} = I_1 - O_5 - O_6 - O_7 - O_8
\]

Definitions of the outputs ("Os" are shown in Appendix 1. Each can be determined by direct measurement of the quantities or, an equivalent calculation can be made by other means, for instance by using the capture efficiency of the process, document records or continuous monitoring results.

Actual Solvent Emission values must be determined for the activity, and must be repeated when any equipment or process modification is carried out. (see Appendix 1).

The information required by this condition shall be submitted on 01 September and 01 April of every year and in each case the information shall be supplied as half year and full year data respectively.

11.3 In as far as is possible, the operator shall maintain a continuous record of progress in respect of solvent usage and determination of compliance with the target emission required by condition 2.4. The operator should estimate on a monthly basis the actual solvent emission (based on the calculation in 11.2 above) and therefore be able to calculate the remaining potential for solvent release from the installation. There shall be no requirement for submit this information, but it shall be made available on written request of the regulator.

If at any stage the actual target emission is exceeded, the operator shall contact the regulator immediately and advise of the excedence, further the operator shall produce a report indicating any extraordinary measures that can be undertaken to minimise the excedence. Such measures might include (but are not limited to), fitting temporary
abatement plant, use of solvent free coatings, use of high solid coatings, powder coating etc.

11.4 At no time shall the operator introduce any substance or preparation into the installation that is labelled with the risk phrase of R45, R46, R49, R60 or R61, without the prior written consent of the regulator. Substances or preparations already in use shall be replaced with non-designated substances in accordance with a scheme to be submitted to the regulator within 3 months of issue of this permit.

11.5 The operator has currently selected the reduction scheme for demonstrating compliance with the requirements of the solvent emissions directive. Should the operator wish to change the compliance alternative to the reduction scheme route, an application in writing must be submitted to the regulator.

.......................................................  Date
....................................................... authorised by Borough of Telford &Wrekin
Pollution Control
PO Box 214
Darby House
Telford
Shropshire
TF3 4LE

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03 March 2006
Appendix 1 - PPC134/1 Location plan and Installation Boundary
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended)
The Solvent Emissions (England and Wales) Regulations 2004

PPC134/2 Designated Raw Material and Waste Storage Areas

- Chemical store
- Skip waste store
- Waste store (drummed waste & empty containers)
- Waste water & effluent store
- Chemical & Paint store
- Phosphate sludge waste store
PPC134/3 Plan showing designated areas for concrete hardstanding (condition 2.23)
PPC134/4 Emission points to the environment (Table 3)

The operator shall supply a plan showing the emission points to environment in accordance with condition 9.6
These notes do not form part of the Permit

1. You should note that section 12(10) of the Act provides that, in relation to any aspect of the process not regulated by specific conditions within the permit the best available techniques shall be used such that:

   a. All the appropriate preventative measures are taken against pollution, in particular through application of the best available techniques; and,

   b. No significant pollution is caused.

2. Section 3(1) of the Regulations defines “BAT” as follows:
   a. ‘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;
   b. ‘best’ means, in relation to techniques, the most effective way of achieving a general high level of protection of the environment as a whole;
   c. ‘techniques’ includes both technology used and the way in which the installation is designed, managed, operated and decommissioned.

3. The ready availability of essential spares and a written maintenance programme is covered by the specific condition 6.1.

4. This permit is issued in relation to the requirements of Pollution Prevention and Control Act 1999 and subordinate regulations. It must not be taken to replace any responsibilities you may have under workplace health and safety legislation.

5. This permit, does not absolve you of the responsibility of any other statutory requirement, such as any need to obtain planning permission, hazardous substances consent or Building Regulations approval from the Council. Discharge consents from the local sewerage undertaker or a waste disposal licence from the Environment Agency may still be required as will compliance with health and safety legislation.

6. This permit is covered by Secretary of State’s Guidance:


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7. The operator will be liable to enforcement action where;
   (a) a change is made without approval of the regulator to the activities as outlined in the ‘description of activities’ at the start of this permit,
   (b) any of the activities are carried on outside the boundary of the installation,
   (c) a new activity (as defined within the Pollution Prevention and Control (England and Wales) Regulations 2000 (as amended) is carried on without a proper permit, and
   (d) any of the conditions of the permit are breached.

8. An annual fee due on 1st April each year (currently chargeable per activity per annum but subject to change by statutory instrument) is payable to the Borough of Telford and Wrekin. An invoice will be submitted by 1st March and payment should be made by 1st April. If the fee is not paid by the due date, a reminder letter will be sent stipulating a final deadline. If the fee remains unpaid after that deadline, then the permit will be revoked.

9. It is an offence to operate a scheduled activity without a current permit.

10. If you are required to contact the Borough of Telford and Wrekin with emission problems please telephone 01952 202509 between 9.00am and 5.00p.m or by email to environmental.health@telford.gov.uk