



Operator	Joseph Ash Limited T/A Joseph Ash Galvanizing Telford
Installation Address	Stafford Park 6, Telford, Shropshire TF3 3AT
Grid Reference	372068 308963
Registered Office	Joseph Ash Limited, Westhaven House Arleston Way Shirley Solihull West Midlands B90 4LH

Joseph Ash Limited is hereby permitted by Telford & Wrekin Council to carry on A Surface Treatment and Galvanising process under Section 2.2 and Section 2.3 of the Environmental Permitting (England & Wales) Regulations 2010 (as amended) and other activities as listed and described below within the installation boundary marked red on the attached plan reference **Appendix 1** and in accordance with the following conditions.

Provenance	Relevant Dates
Date Application Made (Deemed application)	31.07.04
Date 'Duly Made'	13.08.04
Date Permit First Issued	14.02.05
Date of Variations	23.05.05
	17.03.06
	23.07.14
Date of Latest Variation	7.10.16
Change of head office address	16.04.2026

This permit consists of 38 numbered pages



Description of the Installation

The installation produces iron and steel galvanised fabrications by application of zinc to the products. The installation galvanizes prefabricated products of iron and steel with a corrosion resistant coating of metallic zinc in one of two galvanizing lines. The main galvanizing facility, deals with large scale products including structural steel, lamp posts, agricultural parts etc. The spin line galvanizes small products typically no bigger than the size of a hand. The spin line operates by placing small products into galvanizing baskets, the small scale production line then processes the baskets as per a normal galvanizing process, and a 'spin' cycle is used at the end to remove excess zinc from the basket. Other than the spin process, the basic steps in the process are the same for both lines. For ease of identification the steps to achieve this are divided into activities and elements. The activities are prescribed within Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2010 (as amended), and the elements are directly associated and technically connected to the activities.

The galvanizing steps are degreasing, pickling, pre-fluxing, metal melting, and galvanizing. There are additional elements that occur on the Joseph Ash site, involving metal reclamation, and sub-assembly.

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 galvanized are subjected to pre-treatment involving the following process:

- Degreasing using alkali
- Pickling using acid
- Water rinse
- Stripping
- Pre-fluxing

In all cases materials to be introduced to the tanks are either loaded onto specially constructed loading jigs or attached to wires or chains prior to lifting by overhead cranes. The materials are then moved from tank to tank in sequence.

The degreasing baths are bunded tanks within the installation identified on the plan in **Appendix 2**. Degreasing removes surface oils, grease and traces of coolants and lubricants from fabricated steel using proprietary solutions which are alkaline. It is normal to add the proprietary chemical Masco 45 to the degrease bath which removes oil and grease from the metal surface by emulsification. The resulting unstable emulsions float on the surface of the bath and can be removed. The bath is heated to about 30°C to aid the cleaning process by heat generated by the boiler.



The cleaning and degrease baths, have an overall volume of 36,000L and contains a solution of Masco 45, an alkaline degreasing solution with a pH of 14.

Pickling is carried out in the majority banded tanks within the installation. Pickling of the metal prepares the surface for better zinc adhesion and is normally carried out using hydrochloric acid with addition of pickling inhibitors.

Pickling involves removal of surface oxidation products (e.g. rust) and millscale (arising from the steel rolling process). Hydrochloric acid (up to 33% concentration) is bought in bulk and diluted on site for use in pickling baths at ambient temperature. The galvanizing plant usually operates with a series of pickling baths with different acid concentrations that range in strength of pickling from fresh acid (normally 18% concentration) to spent acid (less than 10% concentration). Pickling inhibitors are added to the bath to prevent excessive pickling of steel items, especially when pickling high tensile steels, and to protect the steel pickling vats.

Rinse Water is used after the pickling stage to prevent carry over of concentrated hydrochloric acid into the flux solution, which would otherwise contaminate the contents of the tank.

Stripping occurs when it is necessary to clean the zinc coatings from the jigs, to remove faulty coatings from steel fabrications or to strip fabrications whose coatings have to be renewed. This is accomplished by dipping into diluted pickling acid. Designated stripping tanks are used so that the other tanks may remain zinc free. Stripping only occurs as and when necessary.

Pre-fluxing is a process usually applied to the work surface in order to prevent any oxidation of the work piece before it is dipped. It covers the whole surface and enhances the zinc "wetting" of the steel allowing a uniform coating to be achieved on galvanizing. The pre-flux tank is heated to about 70°C by use of the boiler which also provides heat to the degreasing tank.

Ammonium chloride can be used as a flux but most fluxes consist of zinc ammonium chloride (ZAC) and in the case of Joseph Ash this is applied as an aqueous solution.

ZAC is a mixture of zinc chloride and ammonium chloride salts. The proportions of each may vary. In this instance the mixture used is known as a double salt, and is made from 55% zinc chloride and 45% ammonium chloride. Ammonium chloride from the flux is one of the main components of the fume generated when the work piece is dipped in the galvanizing bath.

The work piece is dipped into a solution of ZAC at about 70°C which forms a uniform coating of the flux. It is then removed, drained, and allowed to dry before progressing to the galvanizing stage.



Additionally there is some small scale dusting of components with Ammonium Chloride to directly flux the work before immersion into the galvanizing bath.

Some products (particularly on the spin line) require shotblasting. There is a small shotblast machine that is ducted into the main abatement plant serving the spin galvanizing bath.

Surface Treatment is an activity falling within schedule in section 2.3(A2) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).

2 – Metal Melting Activity

The galvanizing baths are zinc melting crucibles that continuously operate. The large steel melting vessel has a capacity to hold 350 tonnes of molten metal and the small spin line is about 60 tonnes. Dependent on the throughput of galvanizing, the bath has a melt rates are about 1 tonne per hour. The galvanizing baths are heated directly by hot flue gases from the combustion of natural gas. The burners operate continuously (i.e. the zinc is always kept molten) ensuring the flue gases remain hot and do not give rise to emissions of water droplets or a visible plume. There is no direct contact between the flame and the metal.

The bath heating system is of an energy efficient design that maximises heat recovery from the combustion of natural gas. The galvanizing baths are maintained at a temperature of ~450°C by gas fired burners that are mounted within a jacket that surrounds the bath. The base of the bath is not heated, as the accumulation of dross within the vessel would have an adverse impact upon heat transfer.

All of the burners are of the low-NO_x design. Optimal operation of the burners is assured by six-monthly maintenance checks by the burner supplier, during which, the combustion efficiency is monitored by analysing for carbon monoxide in the flue gases.

Metal Melting is an activity falling within schedule 1 in section 2.2(B)(c) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).

3 – Galvanizing Activity

The fluxed steel fabrications are slowly lowered into the galvanizing bath, which contains molten zinc or zinc alloy at about 440 - 460°C. Additions of other metals may be made to the molten zinc to enhance the galvanizing process and finished product. Aluminium and lead are added because of their influence on the thickness and the appearance of the coating. The addition of lead up to 1.4% has an influence on the physical properties of zinc, especially viscosity and surface tension, it helps to wet the steel before galvanizing and the zinc to flow from the surface after galvanizing. Lead can also be used to protect the base of the galvanizing bath. The addition of Aluminium is made to ensure good adhesion of the zinc and the iron and acts as an inhibitor slowing the ferro-zinc fusing.



The galvanizing process is a metallurgical reaction between the steel work piece and the molten zinc which creates zinc/iron alloy layers. The composition of the alloy layers change with thickness of the coating. The layers closest to the base metal are iron rich with the percentage of zinc increasing through the layers towards the surface. The characteristics of the final product can be affected by the make up of the steel article. The period of immersion varies from several minutes for relatively light steel work up to 30 minutes for the heaviest structural parts.

The dipping process typically gives rise to fume emissions. These emissions take place principally on the commencement of dipping or occasionally during removal of the work piece. This fume is contained within the completely enclosed galvanizing bath by the extraction enclosure. During dipping, except double dipping, the enclosure is fully closed and the extractor fans switched on. Emissions of fume are captured by the enclosure and are ducted to the bagfilter arrestment plant.

Double-dipping is a technique which is sometimes used for extremely large work pieces. Here the length of the item is such that one door of the enclosure can not be closed during dipping and then fugitive fume emissions are contained in the building. During such operations, the extraction rate from the enclosure is increased to provide the best possible capture efficiency.

The galvanizing process gives rise to a number of residues, notably in the form of zinc dross. This is a ferro-zinc compound that contains significant levels of impurities that normally collects at the bottom of the galvanizing bath. Additionally zinc ash is generated on the surface of the galvanizing bath as a result of oxidation. The operator recovers this dross for further zinc recovery, (see element 6 below).

For the spin line, the baskets of galvanized product are placed into a covered centrifuge and 'spun' to allow centripetal forces to remove excess zinc. This zinc is recovered for re-use.

Galvanizing is an activity falling within schedule in section 2.2(B)(c) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).

3a - Passivation activity

Once galvanized, the finished product is passivated to prevent the formation oxide products on the surface of the zinc, an aesthetically undesirable quality to the end customer. Zinc passivation therefore helps the product remain in an 'as galvanized' state for a period of weeks or months.

The passivation process utilises a substance called Metfin CH06; a specialised blend of inorganic and organic passivating constituents, including chromium trioxide and phosphoric acid. The working solution is very dilute and the recommended concentration is approximately 0.1% in water.

The chromate solution is located after the galvanizing bath into which, hot galvanized steelwork will be quenched. The latent heat from the steelwork aids in the reaction



between the zinc coating and the chromate solution and also assists in drying the coating after withdrawal.

Passivation is an activity falling within schedule in section 2.3(A2) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).

4 – Raw Material Storage element

Raw materials for the installation are stored in varying locations around the site, as marked on the plan **Appendix 2** (09/00026/PPCA 2/2).

The major raw materials concerned with the installation are listed in **table 1** 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 galvanizing process that is directly associated and technically connected with the activities scheduled in section 2.3(A2)(a) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended) and as such it is regulated as a polluting activity.



Materials Used

Table 1 (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 2015 (submitted by email 3/10/2016).

Table 1 Quantities of Materials

Raw Material	Usage	Activity
Steel Wire	commercially confidential	1,4,5
Masco 245 Degreaser		1,4,5
Hydrochloric Acid		1,4,5
Acid Inhibitor		1,4,5
Zinc Ammonium Chloride (Double Salt) (Flux)		1,4,5
Zinc Ammonium Chloride SK (Buffered) (Flux)		1,4,5
Zinc Chloride		1,4,5
Ammonium Chloride		1,4,5
Hydrogen Peroxide		1,4,5
Ammonia Solution		1,4,5
SHG Zinc (minimum 99.995% Zn)		3
GOB Zinc (minimum 98.5% Zn)		3
Nickel Zinc		3
Brightener (5-10% Al/Zn Alloy)		3
Lead		3
Nitrogen		2,3,4
Lime		1,3,4,5
Steel Banding		Packaging
Electricity		Site Activities
Natural Gas		2,6
Diesel		Transport Fuel
Water		1
Zinc Spray		Repair Product
Zinc Paste		Repair Product
Zinc Paste (Nickel rich Zinc)		Repair Product
TIB CH06	3a Passivation	

Raw materials, e.g. steel for galvanizing is inspected for contaminants e.g. oil and grease.

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.

Currently, there is no requirement for the company to operate under a sewerage undertaker discharge consent as all effluent emissions are tankered away from site.

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

Plant or Equipment used	Activity	Machine reference numbers	Abatement	Emission Points
Galvanizing baths	2,3		Containment, Bagfilter	1,2
Furnace Burners	2,3		none	4
Pickling Baths	1		none	fugitive
Pre-flux Baths	1		none	fugitive
Overhead Crane	1,2,3		none	N/A
Degrease Baths	1		none	fugitive
Compressor	2,3		none	N/A
Boiler	1		none	2
Zinkoff Ovens	6		none	5
Shotblast	3		Containment, Bagfilter	2

Plant concerned with preventing emissions to the environment

Many of the emissions from the process plant identified in **Table 2** above, are ducted to abatement equipment installed for the purpose of removing pollutants prior to release to the environment. **Table 3** (below) identifies the abatement plant or 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 as marked on the plan **Appendix 5**.

Table 3 Abatement plant and Emissions

Plant or Equipment used	Abatement Type	Machine reference numbers	Emission Points	Pollutants
Galvanizing baths	Bagfilter		1, 2	TPM, HCl, Pb, smoke
Furnace Burner Exhausts	None		4	Smoke, NOx, SOx, CO, CO2
Zinkoff Ovens	None		5, 6	Smoke, NOx, SOx, CO, CO2
<i>Boiler</i>	None		3	Smoke, NOx, SOx, CO, CO2
<i>Shotblast</i>	<i>Bagfilter</i>		2	TPM*

Legend: TPM - Total Particulate Matter, HCl – Hydrogen Chloride, Pb – Lead (and its compounds), CO – Carbon Monoxide, NOx – Oxides of Nitrogen, CO2 – Carbon Dioxide, Smoke – see condition 2.2.

*the shotblast plant emits directly into the same stack as the spin galvanizing line. It cannot therefore be separately monitored.

5 – Waste storage element

All waste materials associated with activities and elements noted above are stored in appropriate sealed drums or containers, skips or are contained and stored in the specified waste storage areas as marked on the plan **Appendix 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.

Waste storage is an element within the galvanizing activity that is directly associated and technically connected with the activities scheduled in section 2.3(A2)(a) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended) and as such it is regulated as a polluting activity.

6 – Zinc Recovery element

As noted above, all zinc ash is subjected to further treatment within the dedicated Zinkoff oven. This oven is a small self-contained unit that subjects the zinc ash to heat. The result is that the zinc metal is separated from the impurities and recycled back into the galvanizing bath.

Zinc recovery is an element technically connected and directly associated with the galvanizing activity in section 2.2(B)(c) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).



7 – Specialist Parts Installation

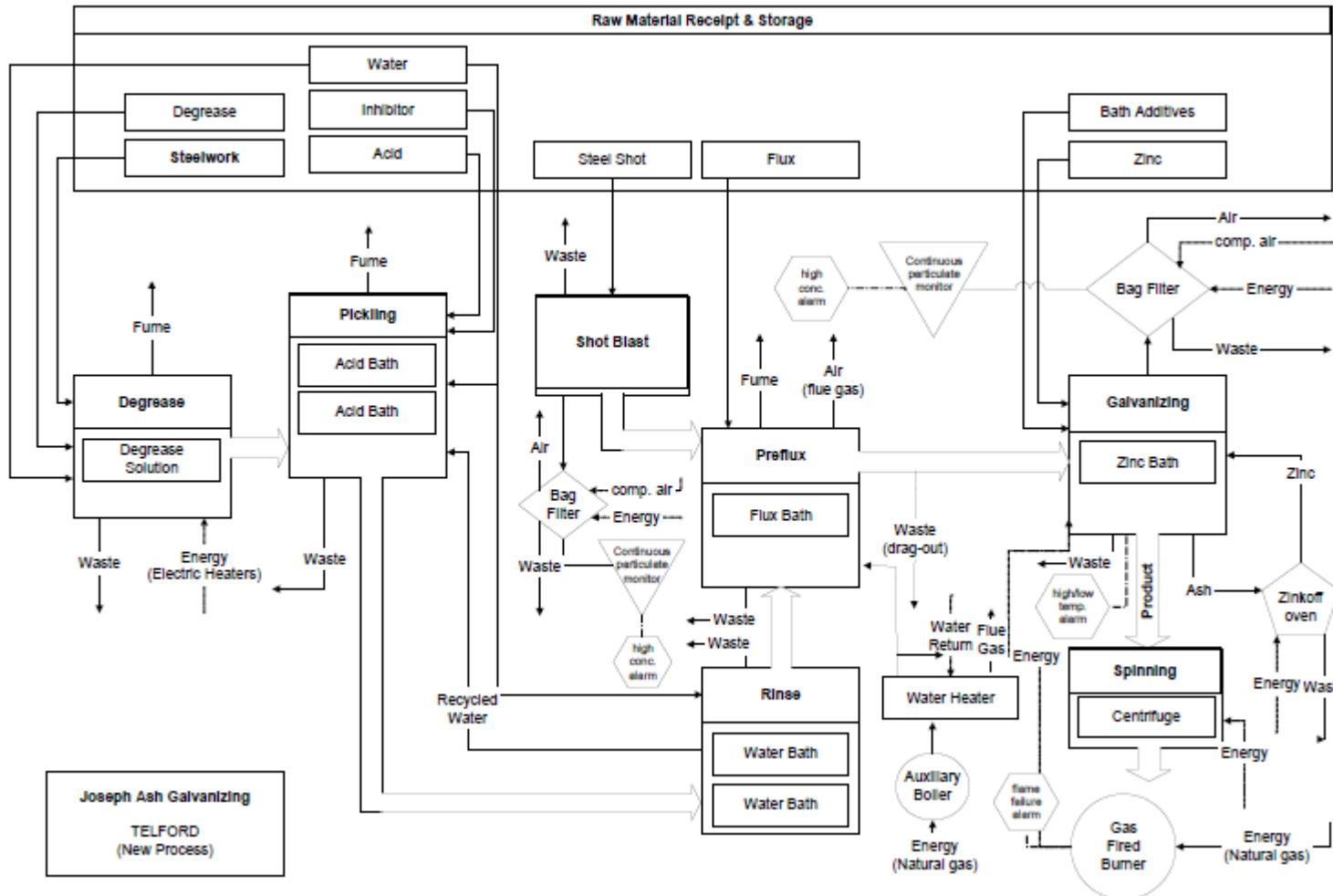
The processes detailed above are further repeated on a smaller scale within an additional galvanizing line, known as the Spin Galvanizing Line located at the eastern end of the main steel framed portal factory building. This installation enables the site to galvanize a wider range of products, primarily small components. The installation comprises 7 process tanks (a degreaser, 4 acid tanks, a rinse and a pre-flux tank), a gas oven (in order to dry and pre-heat products), a small galvanizing bath, a centrifuge (to spin excess zinc post-galvanizing), a quench tank and a small passivation tank. Products are firstly, manoeuvred by overhead crane in steel pickle cans (pre-process) and then transferred to dipping baskets which are manually dipped into the galvanizing bath.

This part of the process is a self contained galvanizing line on the same site as the other line. It is therefore regulated under the same criteria as for the larger line.



Schematic Diagram of Galvanizing process

Joseph Ash Galvanizing Telford (New Process)– Process Flow Diagram





Permit Conditions

General Conditions

1.1 The permitted installation shall consist of the plant and equipment mentioned in **Table 2** (above). No other production plant or equipment shall be used except where a formal written application has been submitted to, and approved by, the regulator.

Process Controls

- 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.2742:2009 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 4 – Permitted Concentrations in Emissions to Air

Pollutant	Emission Limit
Total Particulates (TPM) (Galvanizing Baths)	15mgm ⁻³
Total Particulates (TPM) (All other Sources)	20mgm ⁻³
Lead (and Lead Compounds) (Pb) (wire galvanizing only)	0.25mgm ⁻³
Hydrogen Chloride (HCl)	30mgm ⁻³

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.

The requirement to monitor lead will be only when specifically requested in writing by the regulator to demonstrate compliance and sample for concentrations of Lead and its compounds.



Due to consistent compliance monitoring shall be reduced in frequency to once every other year (even numbers only), unless requested to do so by the regulator.

- 2.4 The concentrations of the substances listed in condition 2.3 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}).
- 2.5 Discharges to surface water from roofs and open areas of Zinc and Ammonia shall be controlled as per the site's Surface Water Abatement Scheme. The Surface Water Abatement Scheme (SWAC) shall be updated from time to time as may be necessary to ensure that zinc and ammonia discharges are minimised.
- 2.6 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 in **table 3** or specifically agreed in writing with the regulator.
- 2.7 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 above, 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.
- 2.8 Notwithstanding condition 2.9, where abatement plant is bypassed for maintenance or cleaning, the operator shall ensure that any emissions are minimised during the period of work. If emissions become significant, then the incident should be treated as an emergency and action shall be taken in accordance with condition 2.9.
- 2.9 Any bypass of the abatement plant shall be deemed an emergency and steps shall be taken to contain the unabated emissions. If the unabated emissions cannot be contained steps shall be taken to stop the process. The regulator shall be notified immediately.
- 2.10 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 0.1%.
- 2.11 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} .



2.12 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. Use of an accelerator cone to increase efflux velocity is permitted.

2.13 All emission points listed in **Table 3** shall discharge at a height calculated with the procedural document D1 entitled, "The Determination of Discharge Stack Heights for Polluting Emissions", published by HMIP.

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

2.14 Any final points of discharge to atmosphere shall be maintained at the minimum height as calculated in condition 2.13 for the lifetime of the plant. Where guidance, plant or equipment, or the nature of emissions changes; the calculations required in conditions 2.13 shall be repeated and the heights modified accordingly.

2.15 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.

2.16 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.

2.17 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.

2.18 Delivery connections to bulk liquid storage tanks shall be located within the bunded area noted in condition 2.21, and shall be locked when not in use.



2.19 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 location of the fixed storage tanks, their contents, and maximum capacity together with the location of any associated fixed above or below ground pipework is as marked on the plan **Appendix 2**.

The plan shall be updated (and resubmitted) as may be necessary where changes occur or new plant is installed.

2.20 Each storage tank shall be clearly labelled with:

- A reference number consistent with the above plan
- The tank maximum volume
- The tank contents
- Any relevant hazard warnings

2.21 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 shall 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.

2.22 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.

2.23 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 five years for the following are as marked on the plan **Appendix 4**.

- Establish a record of all subsurface drains, sewers, plant, equipment, sumps or storage vessels to include the routing of all pipework as marked on the plan **Appendix 4**.



- Produce an inspection and maintenance record for all subsurface drains, sewers, plant, equipment, sumps of storage vessels as marked on the plan **Appendix 4**, 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.

- 2.24 There shall be no defects in the concrete hard standing within the area of the installation as marked on the plan **Appendix 3** (0900026/PPC A2/3). 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 3.9, 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.

Monitoring, Sampling and Measurement of Emissions - Air

- 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 Emissions from the final point of discharge to atmosphere serving the emission points listed in **Table 3** shall be sampled for concentrations of the substances listed within that table on a bi-annual basis, unless otherwise requested in writing by the regulator. Where an emission limit



(prescribed by conditions 2.3) for a particular pollutant is listed for an emission point, there shall be a requirement to sample and provide emission monitoring results for that pollutant.

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 regulator at least 21 days prior to commencement of sampling, and testing shall not be commenced until the regulator approves the proposed test method in writing.

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 2.4 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.

Emissions monitoring shall take place bi-annually to reflect ongoing good compliance, or at the written request of the regulator.

- 3.3 Emissions from the final point of discharge to atmosphere serving the abatement plant serving the galvanizing bath in **Table 3** shall be continuously monitored and continuously recorded for particulate 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 a suitable MCERTS accredited device.

- 3.4 The melt temperature of galvanizing bath and the Zinkoff Oven shall be continuously monitored for temperature and shall operate within a temperature range so as to prevent fume generation.



The galvanizing bath and the Zinkoff Oven 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.

- 3.5 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 3.2 and 3.3) or data gathered (see condition 2.10).

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): pp.support@telford.gov.uk

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

Monitoring, Sampling and Measurement of Emissions – Surface Water and Sewer

- 3.6 The Environment Agency have not requested any specific surface water monitoring as a result of Regulation 13 of the Regulations. The sewerage undertaker has not reported any consented discharge to sewer.
- 3.7 The monitoring and sampling arrangements in the Surface Water Abatement Scheme (SWAC) required by condition 2.5 shall be implemented and reviewed every 3 years. The preventative measures identified shall be maintained in good working order. Records shall be kept of the management and monitoring key performance indicators within the SWAC, including recording of the volumes of first flush water recycled.

Monitoring, Sampling and Measurement of Emissions – Ground Water

- 3.8 The Environment Agency has not requested any specific ground water monitoring as a result of Regulation 13 of the Regulations.



- 3.9 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.

- 3.10 The concrete hard-standing covering the installation designated in plan **Appendix 3** (09/00026/PPC A2/3), 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 2.24. 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 2.24 (above) within 6 weeks of the inspection.

- 3.11 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.



Process Controls

- 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 (with the exception of materials identified in condition 4.5 below). 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 **Appendix 2** (09/00026/PPCA2/2).

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 Notwithstanding conditions 4.1 to 4.3 above, ashes and any dust emissions associated with the galvanizing bath shall be fully contained or placed into fully sealed containers and kept dry at all times to prevent the formation of Arsine gas.



- 4.6 All zinc ash to be treated by the Zinkoff Ovens shall be kept in sealed container until such time as it is loaded into the oven. Loading of the Zinkoff Ovens shall be dealt with in accordance with the requirements of condition 4.1.
- 4.7 The door to the Zinkoff Ovens shall be kept closed during operation.
- 4.8 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.
- 4.9 A locking device shall be securely attached to the waste acid storage tank and the diesel storage tank 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.
- 4.10 No transfer shall take place to any tank without the express permission of the nominated person and discharge 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.
- 4.11 The following procedure shall be used for the delivery of materials to tank or transfer between tanks:
The nominated person shall be notified on the arrival of a bulk delivery or of a request to transfer between tanks.
- (a) The nominated person shall confirm that there is sufficient capacity in the tank to accept the quantity to be delivered or transferred.
 - (b) 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.
 - (c) 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.
 - (d) Only after conditions (a) to (c) have been complied with shall delivery commence.
 - (e) Where any alarm sounds, or the level indicator on the tank suggests the tank is full, delivery shall cease immediately.



Noise Emissions

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.
- Annually review the noise survey of the installation such that any changes to the plant or equipment noted in **Table 2** (above) are identified and the survey updated appropriately.
- Construct a noise management plan based on the survey which shall include the following:
 - A statement of policy with regard to dealing with complaints
 - A documented complaint procedure for the investigation, analysis, determination, and solution to noise problems
 - Details of routine maintenance undertaken in particular to deal with noise issues
 - Construct a register of complaints regarding noise emissions from the installation

The operator shall provide the above 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).

Waste Minimisation

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 made available at the request of the regulator.
- Review alternatives for the principal types of raw materials used with regard to their environmental impact. Notably this shall include, acids, fluxes and additives used within zinc bath. 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 prepared by the operator 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. A summary may be requested to be submitted by the regulator.

The information requested by this condition has been deemed to be commercially confidential. It is not required that this information shall be submitted, the information shall be held available for inspection on site.

- 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 every 4 years. 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:

- (a) tonnes of zinc melted v tonnes of good product
- (b) tonnes of ash/dross produced v tonnes of good product
- (c) tonnes of acid disposed v tonnes of good product
- (d) volume of 'clean' water consumed v tonnes 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.

The information requested by this condition has been deemed to be commercially confidential. It is not required that this information shall be submitted, the information shall be held available for inspection on site.

- 6.4 Rinse water from the rinse tanks shall be used to dilute acid used within the pickling baths in preference to 'clean' water.



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

Energy Efficiency

- 7.1 All raw materials to be used in the galvanizing bath shall be kept covered so as to prevent water ingress into the material, for 24 hrs prior to use, as far as is practicable.
- 7.2 The operator shall ensure that the galvanizing bath and any other tanks required to be heated are maintained at the correct operational temperatures as noted within condition 3.4, and agreed in writing with the regulator.

Ideally the operator shall arrange that the treatment tanks requiring heating are supplied with heat recovered from the galvanizing bath, and are not heated directly.

- 7.3 Where gas-fired heating systems are used for the purpose of melting or heating 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 parts 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.

The information requested by this condition has been deemed to be commercially confidential. It is not required that this information shall be submitted, the information shall be held available for inspection on site.

- 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 preparing the information required by condition 7.4, also calculate the following indicators of energy efficiency performance expressed as a ratio:

- (a) Gas consumed v good tonnes produced.
- (b) 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.

The information requested by this condition has been deemed to be commercially confidential. It is not required that this information shall be submitted, the information shall be held available for inspection on site.

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. The operator shall cover the galvanizing bath when not in use.

For the purpose of this condition, 'not in use', shall be taken to mean, periods of longer than 2 hours between dipping, placing (or removing) of material into the baths.

Prevention of Accidents (environmental incidents)

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 regulator upon written request. A copy of the accident management plan shall be kept with the logbook required to be kept be condition 9.5.

General Conditions

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, pipe-work, 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 2.15 and 3.9 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 be 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 regulator as soon as is practicable, 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.

Decommissioning the Installation

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



In relation to this Permit any reference the local Authority or the Regulator shall mean the Borough of Telford and Wrekin. Any information required by this permit to be sent to the Local Authority shall be sent to:

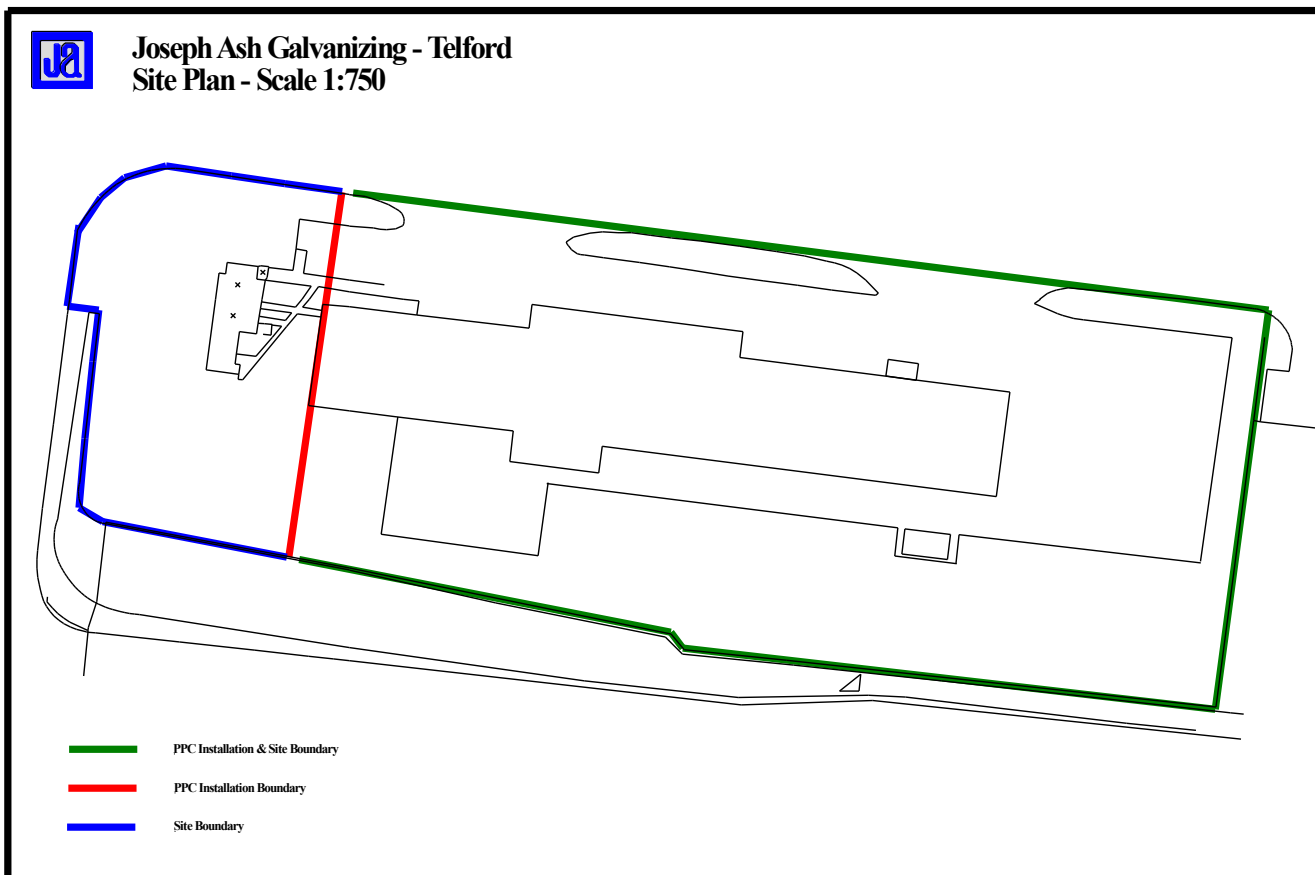
**Environmental Health
Telford & Wrekin Council,
Darby House,
Telford
TF3 4JA**

Signed.....

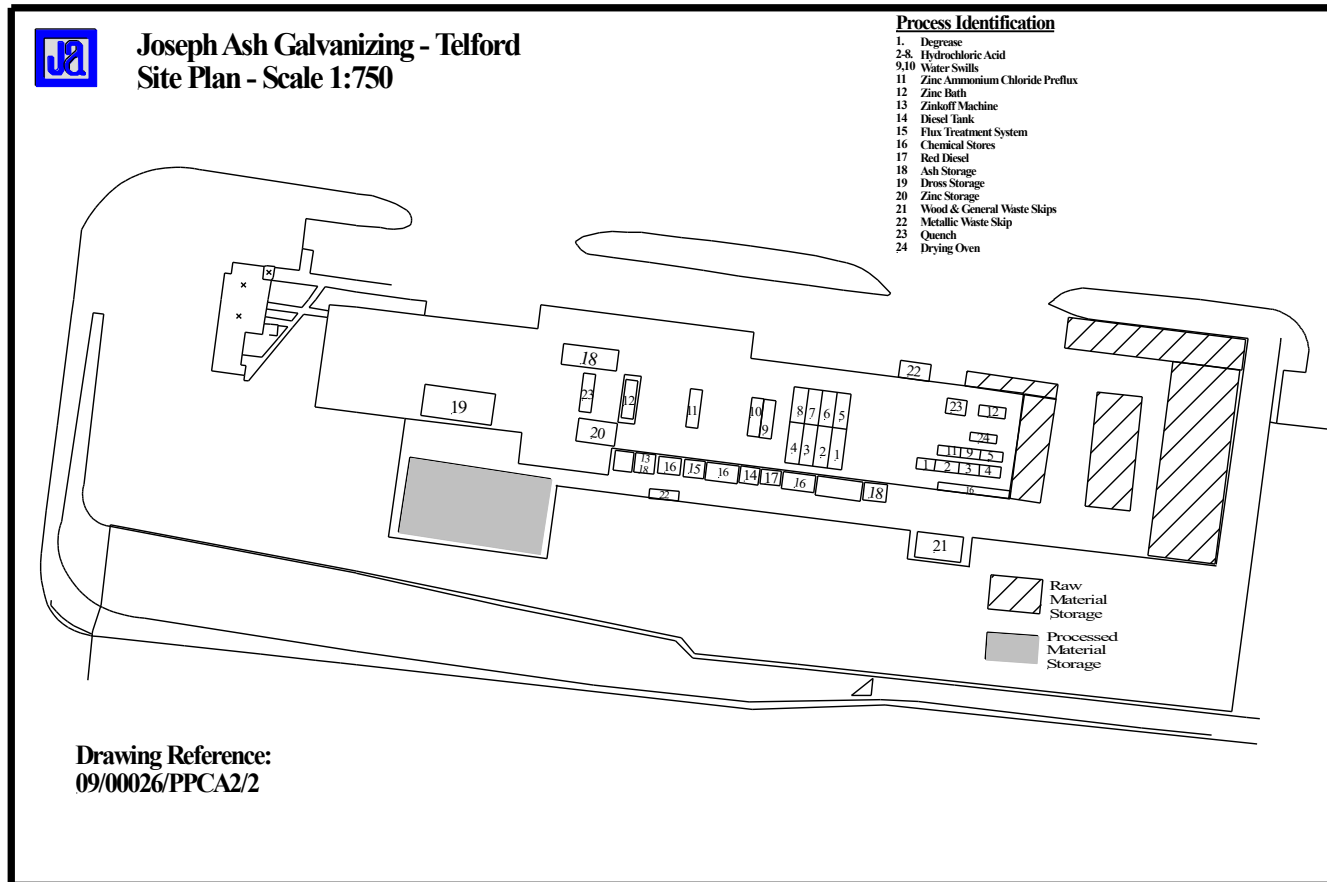
Dated: 7th October 2016

**Warren Dews
Environmental Health Officer
Officer authorised for that purpose**

APPENDIX 1
Installation Boundary

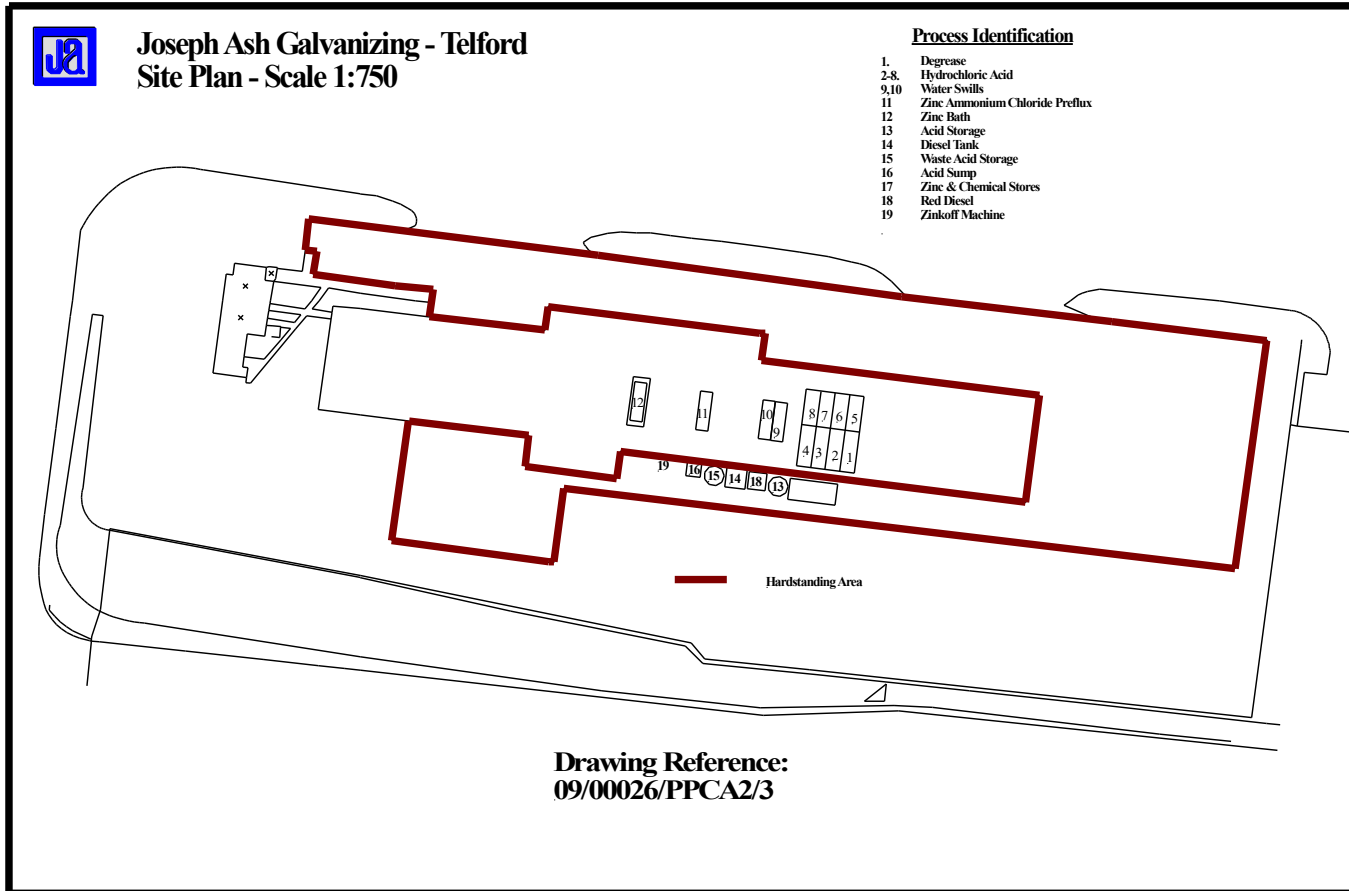


APPENDIX 2 - Designated Waste Area

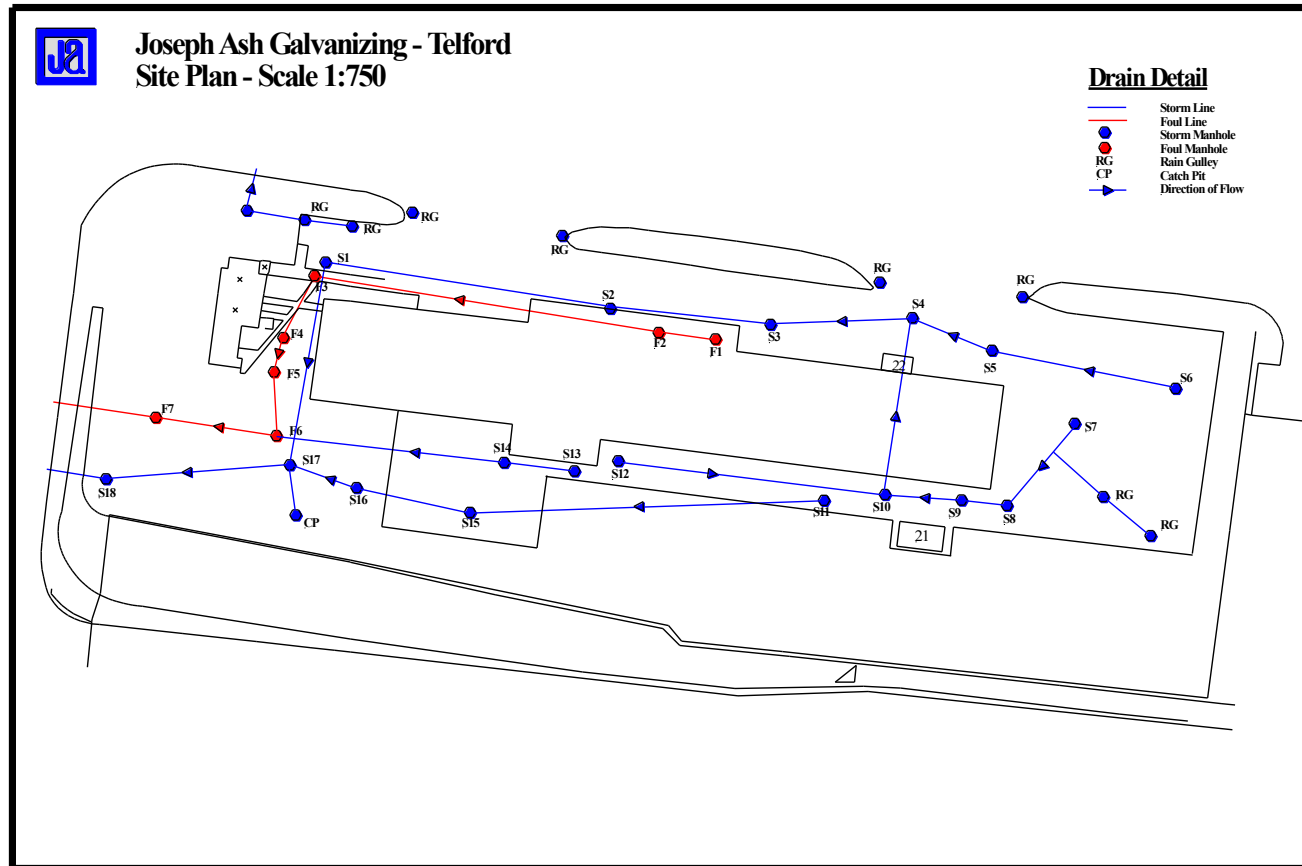




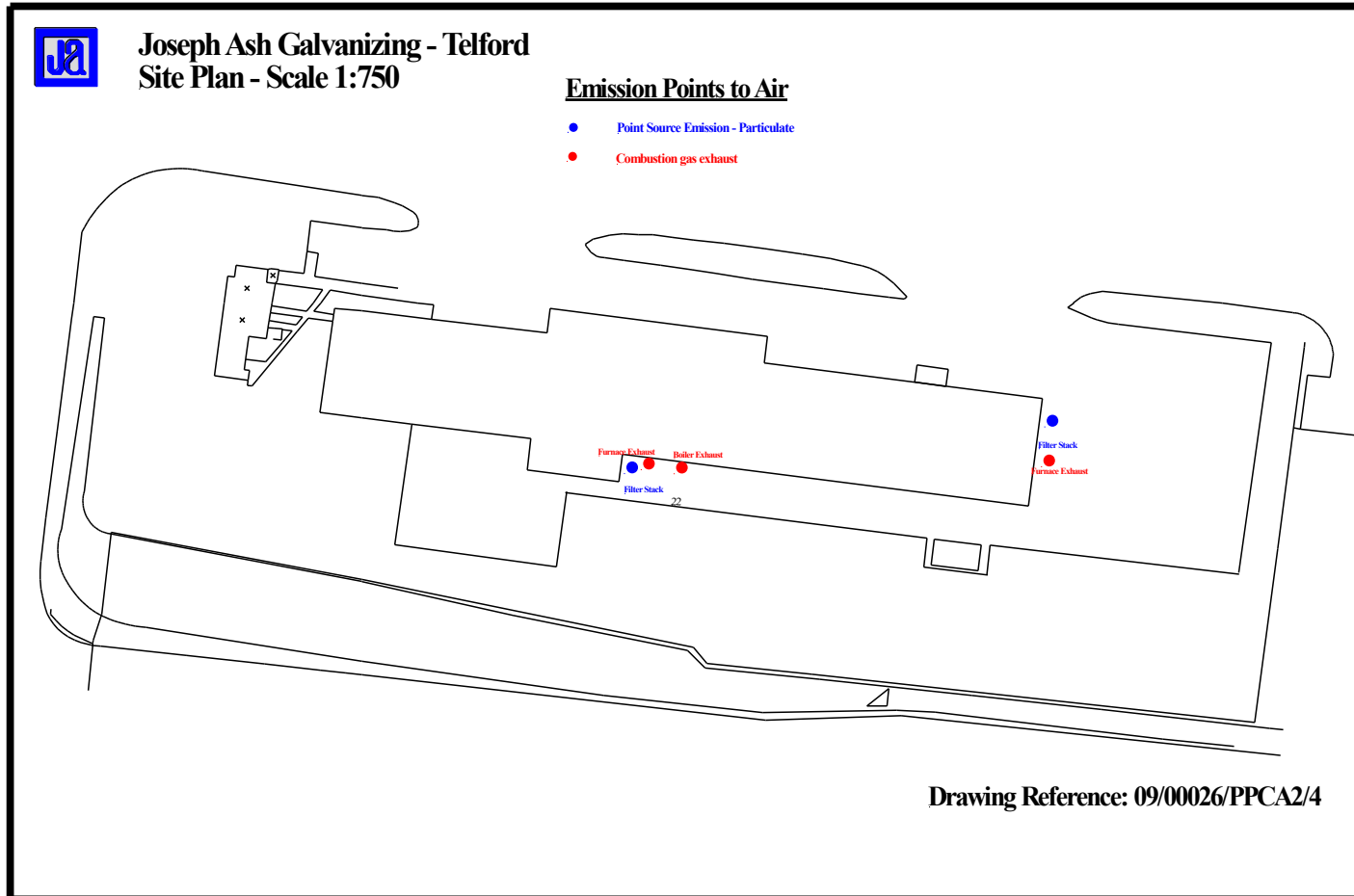
APPENDIX 3 - Concreted/Hard-standing areas



APPENDIX 4 - Drainage Plan



APPENDIX 5 - Emission points



Glossary of Terms/Definitions:

Activity	One or more stationary technical units falling within the defined sections of the Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2010
Coating	Means a preparation, including all the organic solvents or preparations containing organic solvents necessary for its proper application, which is used in a vehicle refinishing activity to spray onto a motor vehicle.
ELV	Emission Limit Values, those values stipulated in the SED or in guidance for emission of particular pollutants to atmosphere.
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 Environmental Permitting (England and Wales) Regulations 2007 within a defined area.
LEV	Local Exhaust Ventilation – ducting and hoods 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.
EPR	Environmental Permitting Regulations , the new pollution control regime replacing that under PPC.



Regulator Means the Pollution Control Section of the Telford & Wrekin Council. 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:

R Phrase	Definition
R40	Limited evidence of carcinogenic effects
R45	May cause cancer
R46	May cause heritable genetic damage
R49	May cause cancer by inhalation
R60	May impair fertility
R61	May cause harm to the unborn

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

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'.

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. For the purpose of the Solvents Emissions Directive, the fraction of creosote which exceeds this value of vapour pressure at 293.15 K shall be considered as a VOC.



Cyclone	An inertial gas cleaning device, which separates dust from the gas stream when the direction of the gas flow is changed and the dust continues in the original direction by virtue of its inertia and is deposited on a collection surface / catch pot. The inlet gas is channeled into a spiral flow. Centripetal forces operating in the spiral provide the change of direction and the larger particles above a critical mass will be deposited on the cyclone walls.
Bag filter	These are fabric filters and are comprised of a filter medium, usually manufactured in the form of bags, through which material over a certain size cannot pass. There are three types: mechanical shakedown, reverse air jet and pulse jet. Bags are capable of filtration of finer particles than cyclones, but do not perform well with wet particulate such as wood with a moisture content > 20% (i.e. they clog up).
Indicative monitoring	Monitoring which measures the performance of the abatement plant, rather than the quantity of dust etc emitted. In the case of bag filtration, this is normally achieved by alarming the pressure drop across the abatement plant, so that an alarm is set off should a bag / sleeve split.
Ringelmann Chart	A chart set by British Standard B.S.2742:1969 which divides smoke into 4 shades by colour. Shades 2 to 3 are dark and 4 is black.
RTO	Regenerative Thermal Oxidiser: Heat from the combustion of waste VOCs is recycled onto a ceramic bed to provide pre-heating to the process and reduce the input of primary fuel.
IBC	Intermediate Bulk Container: A 1000 litre container mounted on a euro-pallet and provided with a means of connecting the container into the process directly. It removes the need to decant liquids from one place to another and the attendant risk of spillage.



This note does not comprise part of the permit, but contains guidance relevant to it.

Inspections

Regular inspections will be made by officers of Telford & Wrekin Council (without prior notice), in order to check and ensure full compliance with this permit.

BAT (Best Available Techniques)

Article 2(11) of the IPPC Directive defines “best available techniques” as follows:

“the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent, and where that is not practicable, generally to reduce emissions and the impact on the environment as a whole”.

- “techniques” shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,
- “available” techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,
- “best” shall mean most effective in achieving a high general level of protection of the environment as a whole.

In determining the best available techniques, special consideration should be given to the items listed in Annex IV of the Directive.

Health and Safety at Work and Other Statutory Requirements

Compliance with this permit does not necessarily infer compliance with any other legislation.

Notification of Operation Changes

The operator will be liable to prosecution if they operate otherwise than in accordance with the conditions and plant described in this permit.

The operator shall contact the regulator to discuss any proposed changes.



Enforcement

The operator will be liable to enforcement action where: -

- a) the operator fails to comply with or contravenes any permit condition;
- b) a change is made to the installation operation without prior notification of the change to the regulator;
- c) intentional false entries are made in any record required to be kept under the conditions of the permit;
- d) false or misleading statement is made.

Any enforcement action is taken in accordance with the regulator's enforcement policy.

Annual Subsistence Charge

A subsistence charge is payable on the 1st April each year. An invoice will be issued by the regulator providing further details of how to pay. The charges are based on a risk based system. Details of the risk assessment can be found at

<http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/fees-risk/fees.htm>

Appeal against Regulatory Action

The operator can appeal against regulatory action by the regulator to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be sent to the Secretary of State on a form found at

http://www.planning-inspectorate.gov.uk/pins/environment/environment/environmental_appeals/environmental_permitting_appeal_form.pdf

Guidance on the appeal procedure can be found at

http://www.planning-inspectorate.gov.uk/pins/environment/environment/environmental_appeals/environmental_permitting_guidance_notes.pdf



There are time limits for making an appeal as follows:

- a) in relation to an appeal against a revocation notice, before the notice takes effect;
- b) in relation to the withdrawal of a duly-made application under paragraph 4(2) of Schedule 5, not later than 15 working days from the date of the notice served under that paragraph;
- c) in relation to a variation notification, a suspension notice, an enforcement notice or a landfill closure notice, not later than 2 months from the date of the notification or notice;
- d) in any other case not later than 6 months from the date of the decision or deemed decision.

Please note:

An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.

In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority either to vary any of these other conditions or to add new conditions.

Contact Numbers for the Regulator

The Regulator is the Industrial Pollution Section of Telford & Wrekin Council. They can be contacted on 01952 380815. You may also contact them by email at any time. pp.support@telford.gov.uk

Correspondence Address

All correspondence to Telford & Wrekin Council relating to this information shall be addressed

Environmental Health, Telford & Wrekin Council, Darby House, Telford, TF3 4JA