



Operator	W. Corbett & Co (Galvanizing) Limited
Installation Address	New Alexandra Works Haldane Halesfield 1 Telford TF7 4QQ
Permit Reference	107/220921
Grid Reference	SJ713053
Registered Office	W. Corbett & Co (Galvanizing) Ltd New Alexandra Works Haldane Halesfield 1 Telford TF7 4QQ
Registered Number	00490482

W. Corbett & Co (Galvanizing) Ltd (“The Operator”) is hereby permitted by Telford & Wrekin Council (“The Regulator”) to carry out the activity of surface treating metals using a chemical process where the aggregated volume of the treatment vats is more than 30m³ and where the activity is carried on at the same installation as one or more activities falling within Part A(2) or Part B of Section 2.2, as described in Schedule 1, Section 2.3, A2(a)(ii).

and

the activity of melting zinc or a zinc alloy in conjunction with a galvanising activity at a rate of 20 or less tonnes per day as described under Schedule 1, Section 2.2, Part B(c),

(Including directly associated activities) as defined within The Environmental Permitting (England and Wales) Regulations 2016 (“The Regulations”). To the extent authorised by and subject to the conditions of this Permit and within the installation boundary outlined in red within Appendix @@@ of this permit.


Signed:

Name: Clair Travis

Date: 22 September 2021

Environmental Health Consultant

Authorised by the Borough of Telford and Wrekin to sign in that behalf



Pollution Prevention Control Act 1999

Environmental Permitting (England and Wales) Regulations 2016

Contact Details

The contact address, telephone number and email address for all correspondence in terms of the permit is as follows:

Public Protection
Telford and Wrekin Council
Addenbrooke House
Telford
TF3 4NT

Telephone: 01952 381818

Email: environmentalprotectionteam@telford.gov.uk



CONTENTS

Introductory Note	2
Permit Conditions.....	7
Description of the Installation.....	7
Emissions – air	14
Emissions – odour	15
Emissions – Noise and vibration.....	15
Emissions - land and groundwater.....	15
Emission monitoring	16
Monitoring – Daily assessments	18
Monitoring – Adverse Results	18
Monitoring - soil and groundwater.....	18
Accidents and incidents	18
Operational Controls.....	19
Waste	20
General Requirements.....	20
Records	21
Written Environmental Management Systems	22
Noise and vibration	23
Resource audits.....	23
Cessation of Activities.....	24
Interpretation of Terms.....	29

List of tables

Table 1 Permitted activities	7
Table 2 Permitted raw materials.....	8
Table 3 Permitted plant and equipment.....	12 and 13
Table 4 emission limits and monitoring requirements.....	14

List of appendices

Appendix 1 location of installation and site boundary.....	26
Appendix 2 site layout	27
Appendix 3 emission points.....	28
Appendix 4 Designated hard standing.....	29



Introductory Note

This Introductory provides relevant information related to this Permit

The permit is issued on the basis that the information provided by the applicant in support of the application for a permit was neither false nor misleading. Any change affecting the accuracy of such information shall be promptly notified, in writing, to Telford and Wrekin Council at the contact address.

The permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by specific conditions are subject to the 'Best Available Techniques' condition placed within the permit. The Operator shall use best available techniques for preventing or, where that is not practicable, reducing emissions from the installation. Please note that techniques include both technology used and the way in which the installation is designed, built, maintained and operated.

Publications

The following Statutory publications are relevant to the installation:

- a) The Environmental Permitting (England and Wales) Regulations 2016 SI 2016 No1154 (as amended).
- b) The Pollution Prevention and Control Act 1999
- c) Council Directive 2010/75/EU of the European Parliament and of the Council on 24 November 2010 on Industrial emissions (integrated pollution prevention and control) known as the Industrial Emissions Directive.
- d) Council Directive 2008/98/EC of the European Parliament and of the Council on 19 November 2008 on waste.
- e) Sector Guidance note SG5 Secretary of State's guidance for Activities in the Galvanising Sector.
- f) Secretary of State's Process Guidance note PG 2/02 hot dip galvanising processes

Confidentiality

The permit requires the Operator to provide information to the Regulator. The Regulator will place the information onto the public register in accordance with the Regulations. If the Operator considers that any information provided is commercially confidential, they may apply to the Regulator to have such information withheld from the register as provided in the Regulations. To enable the Regulator to determine whether the information is commercially confidential, the Operator must clearly identify the information in question and must specify clear and precise reasons.



Inspections and risk rating

Under the Regulations, the Regulator is required to undertake appropriate periodic inspections of regulated facilities. Inspections will be undertaken in accordance with the LA-IPPC risk method risk assessment and following on from any complaints or applications.

Procedures and records shall be examined during inspections and will be referred to during the DEFRA annual risk rating of the permitted site. The site will be determined as either a LOW, MEDIUM or HIGH risk. This will determine the annual subsistence fee and the frequency of inspection.

Annual subsistence fee

An annual subsistence fee is payable to operate the permitted installation. An invoice will be issued annually. Failure to pay the subsistence fee may result in a late payment fee and/or revocation of the permit. You are reminded that the operation of an installation without a permit is an offence upon summary conviction to a fine and/or imprisonment.

Responsibility under other statutory requirements.

This permit is given in relation to the requirements of the Environmental Permitting (England and Wales) Regulations 2016 (as amended). It must not be taken to replace any responsibilities you may have under workplace health and safety legislation. Neither does it detract from any statutory requirement such as the need to obtain Planning Permission and/or building Regulations approval.

For the prevention of accidents, the methods employed and the equipment used to ensure the correct handling, storage and use of flammable materials needs to be determined by trained personnel in accordance with HSE guidance and the Dangerous Substances and Explosive Atmosphere Regulations (DSEAR).

Appeals

The Operator can appeal against regulatory action by the regulator to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be made in accordance with Regulation 31 and sent to the Secretary of State for Environment Food and Rural Affairs. The appeal form can be found at:

http://www.planning-inspectorate.gov.uk/pins/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/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 brought under Regulation 32(2)(b) and Schedule 6, in relation to the conditions of a permit will note 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 Regulations allows the Secretary of State in addition to quash any other conditions not subject to the appeal and direct the local authority either to vary any of these, or other conditions, or add new ones.

Review of Conditions

Under the Regulations the legislation requires permits to be 'reviewed' periodically but does not specify the frequency. It is considered that a frequency of once every eight years shall be adequate. Where significant pollution is encountered or where there are changes to BAT, or where the operational safety of the activity requires other techniques to be used, an immediate review shall be undertaken.

Variation of the permit or part of the permit

If the operator proposes to make a change in the operation of the installation, they must, at least 14 days before making the change, notify the regulator on the appropriate form. The notification must contain a description of the proposed change in operation. A 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

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

Transfer of the permit or part of the permit

Before the permit can be wholly or partially transferred to another person, an application to transfer the permit has to be made jointly by the existing and proposed operators. A transfer will be allowed unless the regulator considers the proposed operator will not be the person who will have control over the operation of the installation, or will not comply with the conditions of the transferred permit.

Surrender of the permit or part of the permit

Where the operator intends to cease the operation of an installation (in whole or in part). For A2 permits, the Operator must apply for a surrender, using the appropriate form and in accordance with Regulation 25 and part 1 of Schedule 5 of the Regulations.

Offences

Offences under Regulation 38 of the Regulations are:



- (1) It is an offence for a person to—
 - (a) contravene regulation 12(1), or
 - (b) knowingly cause or knowingly permit the contravention of regulation 12(1)(a).
- (2) It is an offence for a person to fail to comply with or to contravene an environmental permit condition.
- (3) It is an offence for a person to fail to comply with the requirements of an enforcement notice or of a prohibition notice, suspension notice, landfill closure notice, mining waste facility closure notice, flood risk activity emergency works notice or flood risk activity remediation notice.
- (4) It is an offence for a person—
 - (a) to fail to comply with a notice under regulation 61(1) requiring the provision of information, without reasonable excuse;
 - (b) to make a statement which the person knows to be false or misleading in a material particular, or recklessly to make a statement which is false or misleading in a material particular, where the statement is made—
 - (i) in purported compliance with a requirement to provide information imposed by or under a provision of these Regulations,
 - (ii) for the purpose of obtaining the grant of an environmental permit to any person, or the variation, transfer in whole or in part, or surrender in whole or in part of an environmental permit, or
 - (iii) for the purpose of obtaining, renewing or amending the registration of an exempt facility;
 - (c) intentionally to make a false entry in a record required to be kept under an environmental permit condition;
 - (d) with intent to deceive—
 - (i) to forge or use a document issued or authorised to be issued or required for any purpose under an environmental permit condition, or
 - (ii) to make or have in the person's possession a document so closely resembling such a document as to be likely to deceive.
- (5) It is an offence for an establishment or undertaking to—
 - (a) fail to comply with paragraph 17(3) or (4) of Schedule 2, or
 - (b) intentionally make a false entry in a record required to be kept under that paragraph.
- (6) If an offence committed by a person under this regulation is due to the act or default of some other person, that other person is also guilty of the offence and liable to be proceeded against and punished accordingly, whether or not proceedings for the offence are taken against the first mentioned person.

Penalties and enforcement undertakings

Penalties under Regulation 39 of the Regulations are:

- (1) Subject to paragraph (2), a person guilty of an offence under regulation 38(1), (2) or (3) is liable—
 - (a) on summary conviction to a fine or imprisonment for a term not exceeding 12 months, or to both;



- (b) on conviction on indictment to a fine or imprisonment for a term not exceeding 5 years, or to both.
- (2) A person guilty of offence under regulation 38(1), (2) or (3) in respect of a flood risk activity is liable—
- (a) on summary conviction to a fine or imprisonment for a term not exceeding 12 months, or to both
 - (b) on conviction on indictment to a fine or imprisonment for a term not exceeding 2 years, or to both.
- (3) In relation to an offence committed before the commencement of section 154(1) of the Criminal Justice Act 2003(a), paragraphs (1)(a) and (2)(a) have effect as if for “12 months” there were substituted “6 months”.
- (4) A person guilty of an offence under regulation 38(4) is liable—
- (a) on summary conviction to a fine;
 - (b) on conviction on indictment to a fine or imprisonment for a term not exceeding 2 years, or to both.
- (5) An establishment or undertaking guilty of an offence under regulation 38(5) is liable on summary conviction to a fine not exceeding level 2 on the standard scale.
- (6) Schedule 26 (enforcement undertakings) has effect.

Status Log

Detail	Dates
Date Permit First Issued	31.03.2004
Date of Variations	17.09.2015
Date of Latest Variation	22.09.2021

Fees and Charges:

This permit is for 2 regulated activities. The conditions for each permit have been consolidated into one document.

The activities are deemed combined activities under The Local Authority Permits For Part A (2) Installations And Small Waste Incineration Plant (Fees And Charges) (England) Scheme 2017 and The Local Authority Permits for Part B Installations and Mobile Plant and Solvent Emission Activities (Fees And Charges) (England) Scheme 2017. Therefore, an annual subsistence fee will be for one A2 permit only.

End of Introductory Note



Permit Conditions

Description of the Installation

1. The Operator shall only carry out the permitted activities and directly associated activities detailed within table 1 of this permit and as described within this condition.

Table 1 – Permitted activities

Activities listed in Environmental Permitting (England and Wales) Regulations 2016	Description of specified activity
Section 2.3, A2(a)(ii)	The surface treatment of fabricated metal using hydrochloric acid, water and pre-flux within 16 baths and 2 drip pits located within the installation boundary. The purpose is to clean the surface of the metal in preparation to galvanising the metal with zinc and zinc alloys.
Section 2.2, Part B(c)	The melting of zinc and zinc alloys within 2 enclosed zinc baths located within the installation boundary for the purpose of applying (known as galvanising) zinc to the cleaned fabricated metal surface.
Directly associated activities	
The delivery, storage and handling of materials, including waste materials.	From receipt of raw materials, the handling of materials, through to the handling, storage and disposal of waste materials used in conjunction with the activities and directly associated activities within the installation.
Quench tanks	The post-galvanising process reduce the speed of the oxidisation process. This is carried out by submerging galvanized products into a bath of water and Chromium (IV) Trioxide. There are 2 baths of this type on site.
The recovery of zinc	The melting of dross within 1 oven to recover zinc and zinc alloys to be re-used within the installation.

Introduction

The installation produces galvanised metal fabrications by first surface cleaning the metal and then applying molten zinc to the surface of the metal.

The activities are carried out within two buildings within the installation boundary these are known as A Plant and B Plant.

Raw materials

Raw materials are delivered to site by lorry to the concreted area where the items to be galvanized are offloaded as “black steel” by forklift trucks onto the designated concreted area. Zinc metal arrives as ingots and is stored in a segregated area within the process buildings. Powdered products are delivered in sealed bags and are stored within a segregated area within the process buildings. The hydrochloric acid is delivered in bulk tankers primarily at a concentration of 28 %w/w, the tankers are driven into the process areas and offloaded directly into the baths, so there is no storage on site. The deliveries are carried out during daytime and trained delivery drivers offload the acid

The liquid stores on site for diesel, fuel oil and kerosene are held within designated bunded areas.

The permitted raw materials for the installation are listed within Table 2 below.

Table 2 - Permitted raw materials

Raw material names		
Hydrochloric acid	Degreaser (acid additive)	Water
Zinc	Pickling acid inhibitor	Steel banding
Flux (Zinc ammonium chloride Triple Salt)	Anti-vapour (acid additive)	Steel wire
Lead	Brightener/ Aluminum (5-10% Al/Zn alloy)	Diesel (white and red)
Finish Chromium (VI) trioxide)	Zinc spray (post galv process)	

Surface treatment

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

- Cleaning and Degreasing using acid
- Pickling using acid
- Water rinse
- Pre-fluxing
- Effluent is tankered away directly from the process tanks

Some returned imperfectly galvanised products are subject to the following pre-pre-treatment:

- Stripping

There are 16 baths, all are within a bund, 8 in each building, 12 contain hydrochloric acid, 2 contain rinse water and 2 contain pre-flux. There are 2 dry pits (one in each building) for drip drying before the clean materials are put into the galvanisers.



Materials are loaded onto specially constructed loading jigs, and are lifted by overhead cranes into the baths. The materials are then moved from bath to bath in sequence.

Tanks 1 – 6 of both plants carry out cleaning, degreasing and pickling at the same time. It is described below:

The cleaning and degreasing baths removes surface oils, grease and traces of coolants and lubricants from the metal using proprietary solutions which are acidic. Surfactant additives are occasionally added in the acid pickling baths which remove oil and grease from the metal surface by emulsification. The resulting unstable emulsions float on the surface of the bath and can be removed.

Pickling of the metal prepares the surface for better zinc adhesion and is normally carried out with a cocktail of strong acids, pickling inhibitors and fume suppression chemicals (and cleaning and degreasing as above). Hydrochloric acid (28% or sometimes other grades such as 36%) 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. The acid concentration is diluted using rinse water. To prevent excessive pickling of steel items, especially in pickling high tensile steels, and to protect the steel pickling vats, pickling acid inhibitors are added to the bath. The inhibitor acts also as a fume suppressant.

Rinse water (mains water) bath is used to remove any acid or contaminants to prevent carry-over into the pre-flux bath, and thereby contaminate the contents of that bath.

Pre-fluxing is a process that prepares the surface of the steel prior to galvanising. 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 is zinc ammonium chloride and is applied in liquid form within the pre-fluxing bath. The bath is heated to approximately 70°C to allow a uniform coating. The pre-fluxing baths are heated by a radiant heating plate and a gas boiler.

The Pre-flux and the inhibitors are stored for both plants inside the Plant A away from drains and on bunds.

ZAC is a mixture of zinc chloride and ammonium chloride salts. The proportions of each may vary. They are sometimes described as double or triple salts, where double salt is made of 55% zinc chloride 45% ammonium chloride and triple salt is made of 45% zinc chloride 55% ammonium chloride. Ammonium chloride from the flux is one of the main components of the fume when the work piece is dipped in the galvanizing bath.

Stripping occurs when it is necessary and is carried out prior to the rest of the surface treatment activity. Stripping means to clean the zinc coatings from the jigs, to remove faulty coatings from steel fabrications or to de-zinc fabrications whose coatings have to be renewed. This is commonly done by dipping in diluted pickling acid. Any acid solution may be used to remove the zinc, but it is



the bath with the weakest available acid that is used and this is for economic and waste minimisation reasons.

Drip/ dry baths

The drying pits are used to allow pre-treated parts to drip dry. This is after being submerged in acid/degreaser, rinsed and then submerged in flux solution and before being galvanized

The pits are pumped out with use of external waste tanker.

Galvanising

Hot dip galvanising is carried out on site. There are two galvanising baths, one in each building. The galvanizing baths are a zinc melting crucible. The galvanizing bath is heated directly by hot flue gases from the combustion of natural gas. The burners operate continuously (i.e. the zinc is always kept molten) and there is no direct contact between the flame and the metal.

The baths 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 approximately 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 on the galvanising baths 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.

There are 2 abatement units, one for each plant and these are located externally.

The fluxed steel fabrications are lowered into the galvanizing bath, 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 galvanized steel fabrications are lowered into the quench tank, this to reduce the oxidisation time which leads to poor quality finish of product. The quench is made up of water and Chromium (VI) Trioxide and is heated to 80°C. They are allowed to drip-dry over the quench tank. The liquid normally evaporates quickly.



Abatement plant

A plant is fitted with Disa-Airmaster Filter type reverse jet cleaning type RJX255/A/17-12 whilst B Plant is fitted with Disa-Airmaster Filter type reverse jet cleaning type RJX 420/A/28-12. Reverse jet filtration blasts the filter with air at pre-set intervals, blowing contaminants into the waste hopper, and keeping the extractor performing efficiently.

Zinc recovery

The unit is located in Plant A. process drum filled with process skimming is placed on a drive shaft. The drive shaft rotates the drum and the burner heats the drum externally. Heat is transferred to the skimming's until the melting point of the Zinc is reached and liquid metal starts to collect at the bottom of the drum. After approx 3 hours, depending on skimming type and charge weight, the Zinc recovery process is ready. The drum is then tapped, and the liquid Zinc collected in an ingot mold. This ingot can be reused in the galvanizing process. The MZR currently in use is model MZR750.

The

Waste

Spent acid - is removed by tanker by a registered waste carrier, directly from the process tank (no waste storage on site)

Rinse water – Reused in the acid tanks – this is then tankered with the spent acid
Prefluxing – Done every 10-15 years. Would be removed by registered waste carrier.

Zinc – Re-use via MZR machine

Dross – Sold to third party for re-processing to remove zinc for re-use.

Effluent – stored in water tanks to the rear of the plant and is tankered away by Biffa

Liquid from the drip dry baths - is removed by biffa tanker directly from the pits (no waste storage on site)

Ash – Sold to third party for re-processing to remove zinc for re-use.

Dust from abatement plant – Sold to third party for re-processing to remove zinc for re-use.



2. The operator shall only carry out permitted activities within the plant and equipment described in Table 3.

Table 3 - Permitted Plant and equipment

Plant A				
Plant description	Holding capacity	content	Dimensions	Emission point number
Bath 1	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 2	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 3	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 4	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 5	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 6	18,500 litres	Hydrochloric acid, inhibitor and degreaser	5.5m x 1.4m x 2.4m	N/A
Bath 7	18,500 litres	Rinse water	5.5m x 1.4m x 2.4m	N/A
Bath 8	18,500 litres	Zinc Ammonium Chloride (Flux)	5.5m x 1.4m x 2.4m	N/A
Drip/dry bath	78,170 litres	Hydrochloric acid, degreaser, inhibitor, water & zinc ammonium chloride	8.4m x 5.64m x 1.65m	N/A
Galvanising bath	175 tonnes	Zinc and zinc alloy	5.5m x 1.5m x 3.2m	3 (via abatement)
Galvanising Gas burner	n/a	2no burners to heat plant a galvanizing bath	n/a	2
Abatement plant	n/a	Nederman Local Exhaust Ventilation bag filter	n/a	3
Quench tank	26,400 litres	Water and Chromium 6	5.5m x 1.5m x 3.2m	N/A
Other plant and equipment				
Plant description				
Zinc recovery unit - MZR 750				
Gas Boiler				



Table 3 continued - Permitted Plant and equipment

Plant B

Plant description	Holding capacity	content	Dimensions	Emission point
Bath 1	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 2	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 3	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 4	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 5	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 6	36,180 litres	Hydrochloric acid, degreaser, inhibitor & water	7.6m x 1.4m x 3.4m	N/A
Bath 7	36,180 litres	Rinse water	7.6m x 1.4m x 3.4m	N/A
Bath 8	36,180 litres	Zinc Ammonium Chloride (Flux)	7.6m x 1.4m x 3.4m	N/A
Drip dry bath	203,196 litres	Hydrochloric acid, degreaser, inhibitor, water & zinc ammonium chloride	8.15m x 9.2m x 2.71m	N/A
Galvanising bath	230 tonnes	Zinc and zinc alloy	7.6m L x 1.4m W x 3.2m D.	6 (via abatement)
Galvanising gas burner	n/a	4no burners to heat plant b galvanizing bath	n/a	5
Abatement plant	n/a	Nederman Local Exhaust Ventilation bag filter unit	n/a	6
Quench Tank	34,050 litres	Water & Chromium 6	7.6m x 1.4m x 3.2m	n/a
Other plant and equipment				
Plant description				Emission Point
Gas boiler				4



Emissions – air

3. The operator shall not exceed the emission limits specified in Table 4.
4. The operator shall carry out the monitoring requirements specified in Table 4.

Table 4 – Emission limits and monitoring requirements

Substance	Emission Limit	Emission points to be tested	Type of monitoring	Frequency of monitoring
Total particulate matter	15mg/m ³	Stack 3 and 6	Manual extractive test	Annual
			indicative monitoring	Continuous
Visible emissions	No persistent visible emissions	From galvanising baths 1 and 2	Operator recorded observations	daily

5. Emissions from the galvanising baths shall be contained and extracted to the abatement plant to prevent fugitive emissions.
6. The operator shall ensure that exhaust gases discharged through emission points 3 and 6 achieve an exit velocity of 15 m/sec during normal operating conditions to achieve adequate dispersion.
7. Ensure that the emission points listed within this permit are not fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be necessary to increase the exit velocity of the emissions.
8. There shall be no persistent visible emissions from the installation beyond the installation boundary.
9. All other releases to air, other than condensed water vapour, shall be free from persistent visible emissions.
10. All emissions to air shall be free from droplets.



Emissions – odour

11. All emissions from the installation shall be free from offensive odour beyond the installation boundary identified in the site map detailed in Appendix 1, as perceived by the Regulator.
12. The operator shall develop and maintain an odour management plan. The plan shall be agreed with the Regulator.

Emissions – Noise and vibration

13. The installation, the activities and processes carried out, shall be free from noise and/or vibration that is likely to cause nuisance as perceived by the Regulator.
14. Where it has been found by the Regulator that activities are causing noise and vibration beyond the installation boundary, the Operator shall:
 - a. Submit for approval a noise and vibration management plan which includes an appropriate noise or vibration assessment based on current Standards, within a timeframe specified by the Regulator.
 - b. Implement the approved noise and vibration management plan within a timeframe specified by the regulator.
15. Where a significant change to the installation is proposed, a noise and vibration assessment shall be undertaken and submitted to the Regulator prior to the completion of the significant change. The purpose of the assessment shall be to identify the potential noise and vibration impact and detail methods of reducing the identified noise and vibration emissions where required.

Emissions - land and groundwater

16. Run-off from the installation, including the external building, the raw material storage areas and the hard standing, shall be channelled to a suitable containment system such as an interceptor and not to any surface drainage or sewer.
17. All interceptors shall be:
 - a. impermeable.
 - b. be subject to weekly visual inspection and, where necessary contamination must be removed.
 - c. Annually inspected and prior to inspection, all contents shall be removed.
18. There shall be no emissions of hazardous substances or non-hazardous pollutants as described in The Groundwater (England and Wales) Regulations 2009 (and subsequent regulations) to groundwater.



19. The Operator shall have a clear diagrammatic record of the routing of all installation surface drainage system, subsurface structures, interceptors, pipework, drainage system and/ or storage vessels, including the type and location of receiving environment.
20. The operator shall carry out a risk assessment of the surface and subsurface drainage system and devise an inspection and maintenance programme. A drainage survey (including CCTV) to determine the integrity of the drainage system must be carried out at least once every five years and the survey must be agreed by the regulator before commencement. All records to demonstrate compliance with this condition shall be made available for inspection.
21. The external floor of the installation identified as hard standing within Appendix 4, shall have an impervious surface and this shall be maintained to prevent emissions to the land and/or groundwater.
22. The internal operational and storage areas shall be equipped with an impervious surface, spill containment kits and sealed construction joints.
23. All baths specified in table 3 shall be located within bunds that the volume is 110% more than the bath, are designed and constructed to be impermeable, and resistant to the materials contained within it.
24. All sumps shall be impermeable and resistant to stored materials.
25. Storage tanks for oil, kerosene and diesel shall:
 - a. Be held within a bund which is 110% larger than the tank within it.
 - b. have the delivery connection point within the bund and this shall be capped and locked when not in use.
26. All bunds and sumps shall be inspected annually. The contents of bunds and sumps shall be pumped out prior to the inspection. A record of the results of the inspection shall be recorded and made available for inspection.

Emission monitoring

27. The operator shall notify the regulator at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. The operator shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.
28. MCERTS (Monitoring Certification Scheme, Environment Agency) standards shall be applicable to all annual extractive monitoring requirements. Monitoring shall be undertaken by suitably qualified and competent consultants.
29. Emissions monitoring shall be carried out in accordance with the methods described in the latest versions of Monitoring Stack Emissions Technical



Guidance Notes published by the Environment Agency, or by another method agreed in writing by the Regulator.

- 30.** Monitoring to determine compliance with emission limit values in Table 4 shall be corrected to the following standard reference conditions: temperature, 273.1K, pressures 101.3 kPa) and measured without correction for water vapour content.
- 31.** The introduction of dilution air to achieve emission concentration limits shall not be permitted.
- 32.** The operator shall ensure that relevant stacks or ducts are fitted with facilities for sampling which allow compliance with the sampling standards.
- 33.** The results of non-continuous emission testing shall be forwarded to the regulator within 8 weeks of completion of the sampling.
- 34.** All results submitted to the regulator shall include details of process conditions at the time of monitoring, monitoring uncertainty, any deviations from the procedural requirements of standard reference methods and the error invoked from such deviations.
- 35.** Where continuous monitoring is required by the permit, instruments shall be fitted with audible and visual alarms, situated appropriately to warn the operator of arrestment plant failure or malfunction. The activation of alarms shall be automatically recorded and readings shall be on display to appropriately trained operating staff.
- 36.** All continuous monitors shall be operated, maintained and calibrated (or referenced) in accordance with the appropriate standards and manufacturers' instructions, which shall be made available for inspection by the regulator.
- 37.** Continuous monitors shall be designed for less than 5% downtime over any 3- month period and all relevant maintenance and calibration (or referencing) shall be recorded.
- 38.** With regard to the continuous monitoring:
 - a. no daily mean of all 15-minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down); and
 - b. No 15-minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start-up and shut-down).
- 39.** Results from continuous monitoring systems shall be recorded and be made available for inspection by the regulator.



Monitoring – Daily assessments

40. The operator shall conduct daily visual and odour assessments to determine whether emissions result in persistent visible or odorous emissions from the stacks and at, or beyond the installation boundary. A record of the assessments shall be made available for inspection by the regulator.

Monitoring – Adverse Results

41. Adverse results from any monitoring activity (both continuous and non-continuous) shall be investigated by the operator as soon as the monitoring data has been obtained. The operator shall:
- identify the cause and take corrective action;
 - clearly record as much detail as possible regarding the cause and extent of the problem, and the remedial action taken;
 - re-test to demonstrate compliance as soon as possible; and inform the regulator of the steps taken and the re-test results.

Monitoring - soil and groundwater

42. From the date of issue of the Permit, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
43. Any periodic testing method for soil and groundwater monitoring shall be submitted to the regulator for approval at least 28 days before the proposed monitoring is carried out. Monitoring shall not take place until approval has been given.
44. The results of the monitoring shall be included within the site closure plan within 8 weeks from receiving the results, and shall be made available for inspection by the regulator.

Accidents and incidents

45. There shall be written procedures, known as an incident and accident management plan. The plan shall identify hazards and assess the risks associated with the activities.
46. The incident and accident management plan shall include procedures for investigating accidents and incidents, including identification and implementation of suitable corrective action and any follow up.
47. The incident management plan shall be made available for inspection by the regulator and reviewed every 4 years.
48. In the case of abnormal emissions from any accident or incident, the operator as a minimum shall:



- a. Investigate immediately and undertake remedial action as soon as practicable;
 - b. Promptly record the events and actions taken;
 - c. Inform the regulator without delay.
49. Where any incident, accident or non-compliance of any conditions within this permit may lead to immediate danger to human health, operation of the activity shall be suspended.

Operational Controls

50. Deliveries shall be carried out in such a way so as to minimise noise, spillage, leaks and dusty emissions, in particular, those arising from accidents during materials transfer.
51. Storage areas for raw materials shall be under cover and protected from the elements where appropriate to avoid or minimise environmental impact.
52. All spillages shall be cleared as soon as possible; solids by vacuum cleaning, wet methods, or other appropriate techniques. Dry sweeping of dusty spillages shall not be permitted in circumstances where it may result in the generation of airborne dust outside any building. Liquid spillage shall be cleaned by addition of absorbent or by run-off to contained drainage systems.
53. A high standard of housekeeping shall be maintained.
54. The operator shall ensure that degreasing and pickling operations are carried out using the highest degree of control to minimise spillage and carryover of degreasing agents.
55. Pickle liquor parameters shall be monitored and recorded weekly to ensure optimum pickling rate.
56. Water from rinse tanks shall be used to make up fresh pickling baths or as top up to replace evaporative losses from pickling tanks.
57. The operator shall control the iron content of the flux solution in order to minimise dross production at the dipping stage.
58. All doors to the fume enclosures for the galvanising baths shall be closed during the immersion of articles into the galvanizing bath, unless the article is too big and requires double dipping, in which case extraction shall be used to ensure that fugitive emissions are not released from the building.
59. Sufficient fume containment measures shall be provided to collect fume produced when working the ash; either by working ash with the enclosure in place or by the use of peripheral extraction.



60. All skimmings off the top of the galvanizing bath shall be subject to zinc recovery.
61. Ashes from the zinc bath shall be kept dry at all times.
62. The operator shall ensure that flues and ductwork are cleaned to prevent accumulation of materials. This must be included into the routine maintenance programme and recorded.
63. The surface of the floor between the surface treatment baths and the galvanising bath shall be an impervious surface, capable of containing the relevant liquid and be able to drain back into the bund.
64. The storage of pre-treated metals, finished goods and waste materials shall only be stored on the hard standing identified in Appendix 2.

Waste

65. The method of collection of waste from the dry arrestment plant shall be such that dust emissions are minimised.
66. Waste shall only be stored in the areas with an impervious surface and away from the drainage area.
67. Dusty waste including ash shall be stored in closed containers.
68. The operator shall ensure that waste stored in containers that are durable for the substances stored and the containers are closed.
69. All waste containers shall be clearly labelled with its contents.
70. Incompatible waste types shall be stored separately.
71. All necessary measures shall be taken to ensure that;
 - a. The waste hierarchy referred to in Article 4 of Directive 2008/98/EC on waste (the "Waste Framework Directive") is applied to the waste generated by the permitted installation; and
 - b. Any waste generated by the permitted installation is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - c. Where further treatment or disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

General Requirements

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



73. An appropriate person (and deputy) shall be appointed as the primary point of contact with the regulator. The regulator shall be informed in writing of the appointed person (and deputy). In the event of a different person being appointed, the regulator shall be informed without delay.
74. A copy of this permit shall be kept at the installation. All relevant staff shall be made aware of its content and shall be told where it is kept.
75. If the operator proposes to make a change in the operation of the installation, they must, at least 14 days before making the change, notify the regulator on the appropriate form. The notification must contain a description of the proposed change in operation. A 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.
76. The Operator shall notify the Regulator in writing and within 14 days of their occurrence if they make:
 - a. Any change to the installation name, registered company name or company registered address.
 - b. A change to any particulars of the holding company (including details of any ultimate holding company where the Operator has become a subsidiary).
77. The Operator must respond to any Request for Information Notice served for the purposes of complying with their obligation to report their pollutant releases and off-site waste transfers pursuant to the directly applicable EU duty in accordance with Article 5 of EC Regulation No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register (E-PRTR). Failure to respond in accordance with such annual E-PRTR request for information notice will hereby constitute a breach of this permit condition.

Records

78. All records required to demonstrate compliance with any conditions of this Permit shall be kept in an organised manner. The records shall be kept electronically or in paper form. Records:
 - a. Must be legible and any amendment entered into a record shall be made in such a way as to leave the original clear and legible. A valid reason for such an amendment shall be included.
 - b. Records shall be kept for a period of 5 years, unless otherwise stated.
 - c. Records shall be kept on-site for a minimum of 12 months and made available for inspection by the Regulator. Records kept off-site, must be made available within 7 days of any request by the Regulator.
79. All documentation required to be submitted to the regulator to demonstrate compliance with relevant conditions, shall be submitted in an electronic format and include the permit number and the Operator name. Submissions shall be sent to: environmentalprotectionteam@telford.gov.uk



Written Environmental Management Systems

80. The regulated activity shall be managed and operated in accordance with a written environmental management system. The environmental management system shall be submitted to the Regulator for approval no later than 12 months from the date of issue of this permit.
81. The environmental management system required in condition 80 shall include:
 - a. Environmental policy
 - b. All site and operational procedures for the activities and directly associated activities. This shall incorporate current Best Available Techniques.
 - c. Defined responsibilities and site infrastructure plan
 - d. Environmental audits.
 - e. Record keeping.
 - f. Pollution and emission monitoring.
 - g. Preventative maintenance procedures.
 - h. Training, staff competence management and training records.
 - i. Pollution control and accident/incident/ non-conformance management.
 - j. Contingency plans.
 - k. Environmental impact and resource control.
 - l. Energy audits.
 - m. Waste minimisation.
 - n. Complaint procedures.
82. The environmental management system procedures shall include systems and procedures setting out the necessary steps to be taken:
 - a. To ensure that all staff engaged in carrying out operations at the permitted installation, are provided with adequate professional and technical development and training, and written operating instructions to enable them to carry on their duties. This shall include the maintenance of a record of the skills and training requirement for each job, and of all relevant training undertaken by staff.
 - b. To monitor the condition of, and to maintain the permitted installations, included as a minimum; plant, equipment, instrumentation, building, drains, and undergrounds structures which it relies on for the prevention, or limitation, of pollution from the permitted installation.
 - c. To carry out effective maintenance and servicing on all aspects of the installation whose failure has the potential to impact on the environment.
 - d. To investigate and rectify any non-compliance with the conditions of this permit, and/or any incident or pollution identified by the Operator or drawn to the attention of the Regulator, or by complaint by another person.
 - e. In the event of an incident, leak, malfunction, momentary stoppage or other defect of the installation.



83. The environmental management system required by condition 80 shall be reviewed and updated:
- Prior to the completion of a significant change within the installation.
 - Where any type of change is made to any plant and equipment listed within Table 3 concerned with the control of pollution.
 - At least every 4 years in any other circumstance.
 - Any review required by this condition shall be recorded, the results incorporated into the environmental management system and implemented within 3 months from the end of the review.

Noise and vibration

84. The regulated activity shall be free from noise and vibration that are likely to cause nuisance as perceived by the Regulator.
85. Where it has been found by the Regulator that activities are causing noise and vibration beyond the installation boundary as perceived by the Regulator, the Operator shall:
- Submit for approval a noise and vibration management plan which includes an appropriate noise or vibration assessment based on current Standards, within a timeframe specified by the Regulator.
 - Implement the approved noise and vibration management plan within a timeframe specified by the regulator.
 - Where a significant change to the installation is proposed, a noise and vibration assessment shall be undertaken and submitted to the Regulator prior to the completion of the significant change. The purpose of the assessment shall be to identify the potential noise and vibration impact and detail methods of reducing the identified noise and vibration emissions where required.

Resource audits

86. At least every 4 years, a systematic assessment of the following shall be undertaken:
- Raw materials
 - Electrical , gas and other fuel consumption
 - Emissions
 - Waste minimisation
 - Water usage
- The purpose of the assessment shall be to identify methods of optimising or reducing raw materials, energy, fuel consumption, emissions, waste and water usage. The assessment shall include the identification of methods avoiding or reducing the impact on the environment and those methods to be adopted, including timescales. Each assessment shall be recorded and submitted to the Regulator. The next assessment shall be submitted no later than 1 May 2022.

87. The operator shall monitor and record the waste produced by the activities on site. This shall include:



- a. the quantity, nature and origin of the waste.
 - b. The physical description and composition of the waste,
 - c. If applicable, any hazardous properties of the waste including hazard and risk phrases.
 - d. The European Waste Code (EWC)
 - e. Handling precautions and substances with which it cannot be mixed.
 - f. Disposal routes and waste categories.
- 88.** The Operator shall produce and submit an annual report on the energy consumption of the installation to the Regulator no later than 31 January of each year.
- 89.** The operator shall keep a record of the weekly usage of zinc and its alloys melted within the galvanising bath (in tonnes) and the amount of crude steel (in tonnes) that is galvanised per week. The operating hours for each week shall also be recorded. The record shall be submitted annually to the Regulator no later than 31 January each year.
- 90.** The Operator maintain and annual inventory of the amount of each of the raw materials used, the amount of dross produced and the amount of zinc recovered. The record shall be made available for the Regulator.
- 91.** The operator shall carry out an annual review of raw materials with a regard to the use of alternative raw materials that may reduce the impact on the environment. This shall be made available to the Regulator.

Cessation of Activities

- 92.** The operator shall maintain a site closure plan for the final cessation of the permitted installation and its activities. The site closure plan shall include:
- a. Site details; and
 - b. Full list of raw materials; and
 - c. Details of the condition of the land at permit issue; and
 - d. Details of permitted activities; and
 - e. Outline proposals for decommissioning.
- 93.** The site closure plan shall be kept up to date as changes occur to the installation and its activities. Once updated, the regulator shall be provided with an amended copy within 8 weeks of the completed changes.
- 94.** A review of the site closure plan shall be carried out every 4 years and an updated plan shall be submitted to the regulator. The next submission is due 1 June 2022.

Appendix 1. Location of installation plan and site boundary



Appendix 2. – Site Layout plan

■ Acid Tanks

■ Rinse Water

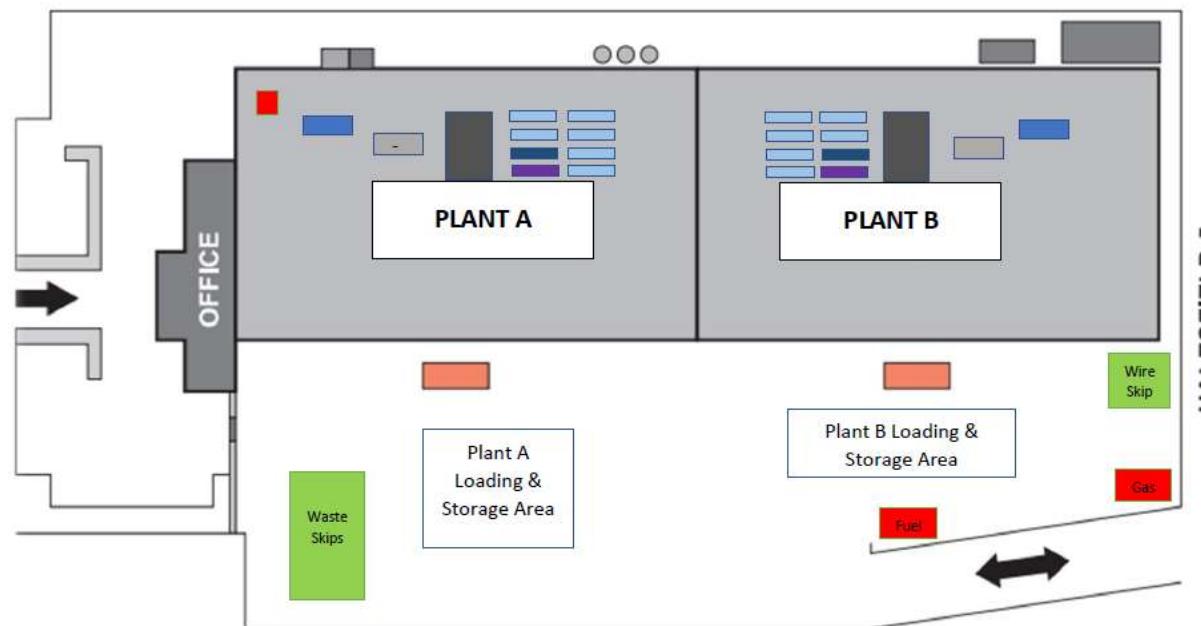
■ Flux Tank

■ Drip Pit

■ Galv Tank

■ Quench Tank

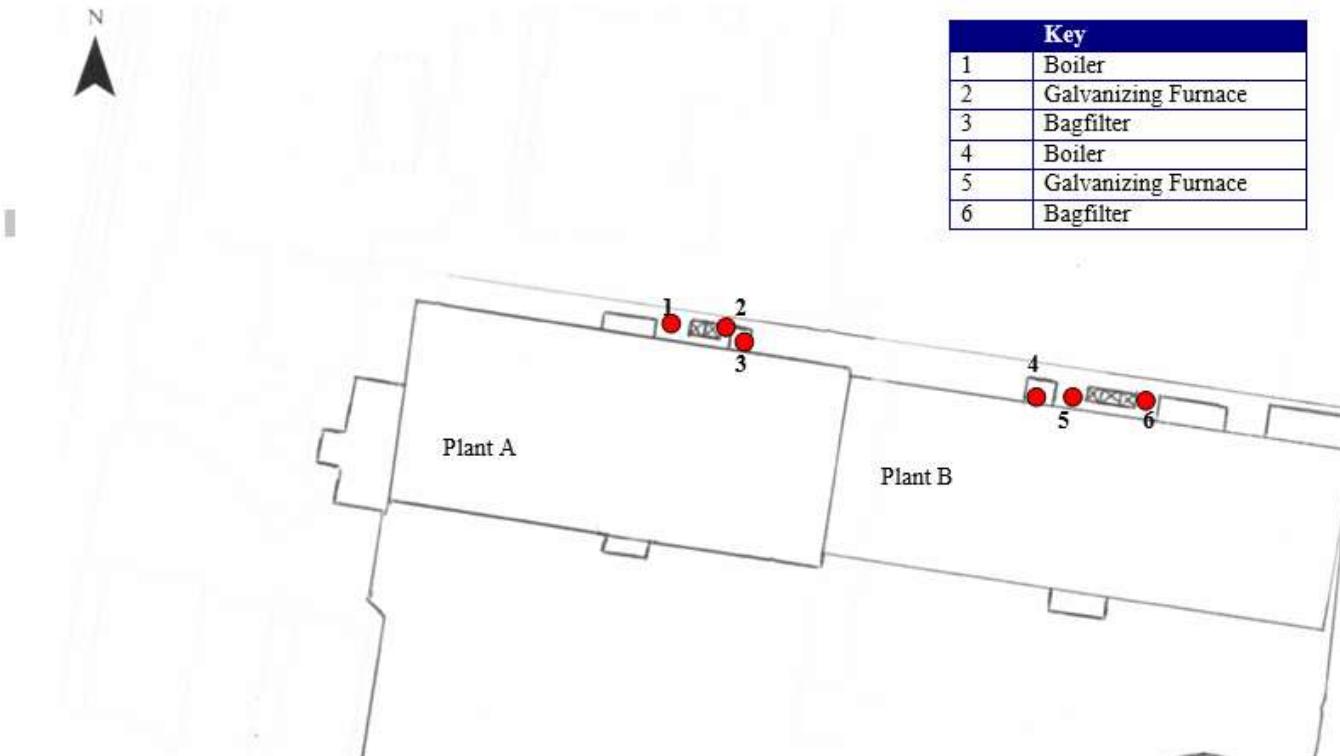
■ Zinc Recovery



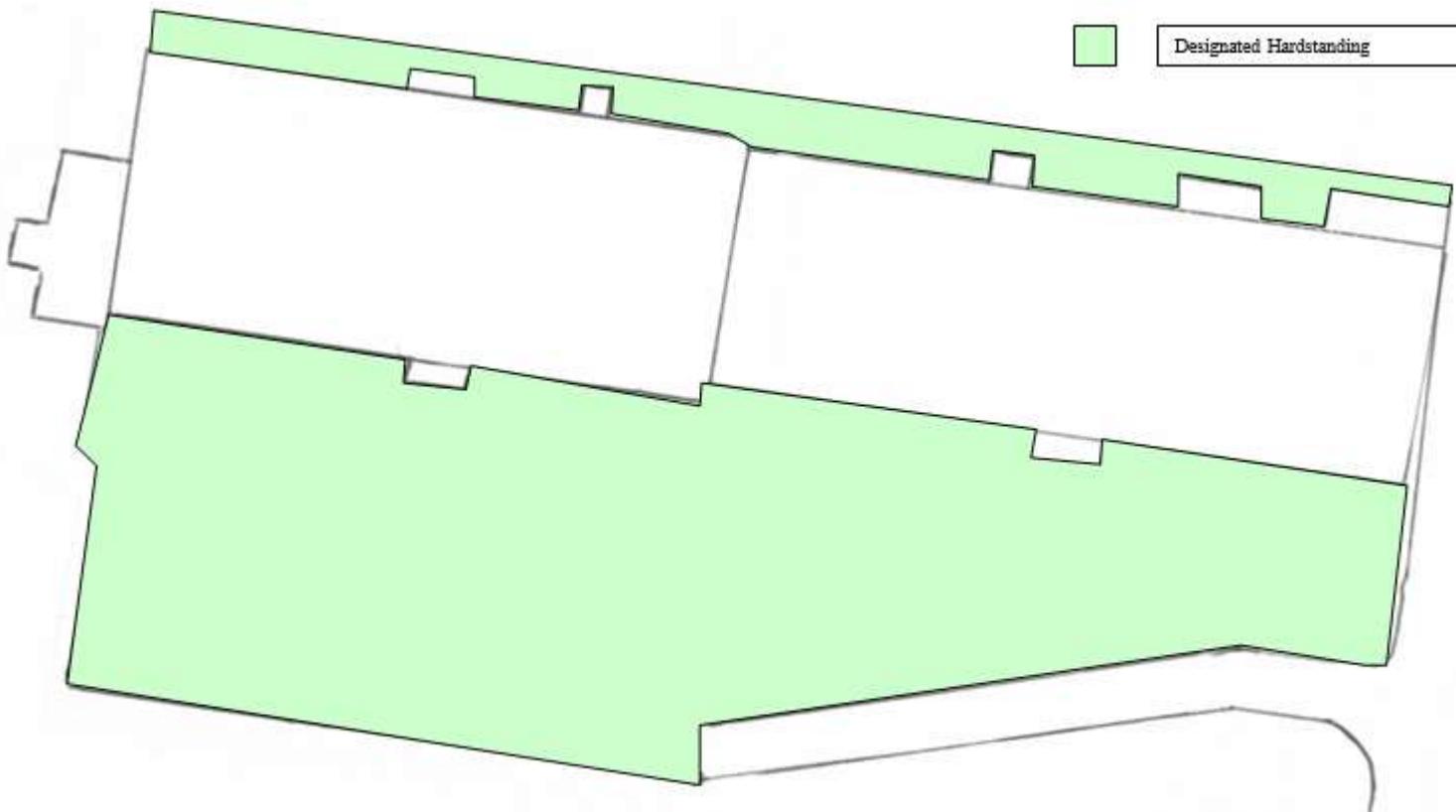
Pollution Prevention Control Act 1999

Environmental Permitting (England and
Wales) Regulations 2016

Appendix 3 – Emission Points



Appendix 4 – Designated hardstanding area





Interpretation of Terms

For the purposes of this Permit as its conditions, the following interpretation of terms shall apply:

Activity and permitted activity

Means any activity listed within the Environmental Permitting (England and Wales) Regulations 2016 (and any subsequent amendments).

BAT (Best Available Techniques)

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

“best” shall mean most effective in achieving a high general level of protection if the environment as a whole.

“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.

“techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Suitable BAT techniques for the purposes of this permit are located within Sector Guidance Note SG5 and Process Guidance note 2/02.

Change in operation

Means a change in the nature or functioning, or an extension of the installation, which may have consequences for the environment, or the implementation of any part of the site closure plan.

Directly associated activities

Means an operation which has a technical connection with the activity, is carried out on the same site as the activity and could have an effect on pollution for the installation.

General meanings

Except where specified otherwise in the Permit:

- Day means any period of 24 consecutive hours
- Week means any period of 7 consecutive days
- Month means a calendar month
- Quarter means a calendar quarter

- Annual means the period between 1 April to 31 March of each year unless otherwise stated in the permit condition.

Incident

Means any of the following situations:

- Where an accident occurs which has caused or may have the potential to cause pollution
- Where any malfunction, breakdown or failure of plant or techniques is detected has caused or may have the potential to cause pollution
- A breach of any condition of this Permit.
- Where any substance, vibration, heat or noise specified in any condition of this permit, is detected in an emission from a source not authorised by a condition and is in a quantity that may cause pollution.
- Where an emission of any pollutant not authorised to be released under any condition of this permit is detected.

Installation and permitted installation

Means a stationary technical unit where one or more activities are carried on, and any other location on the same site where any other directly associated activities are carried on, and references to an installation include references to part of an installation.

Inspection by the regulator

Means a person who is authorised in writing to carry out the duties on behalf of Telford and Wrekin Council.

Satisfactory state

Means the same as defined in Schedule 5, Part 1, paragraph 14(1)(b), which states to return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.

Stationary technical unit

Means a technical unit where one or more activities listed in Schedule 1, Part 2 of the Regulations (listed activities) are carried out; and the technical unit must be stationary.

The operator

Means the person(s) or corporate body who has control over the operation of the permit.

End of Permit