Application for a A2 Permit

Local Authority - Integrated Pollution Prevention and Control

Pollution Prevention and Control Act, 1999
Environmental Permitting (England and Wales) Regulations 2007

Introduction

When to use this form
This environmental permitting regime is known and referred to as Local Authority Integrated Pollution Prevention and Control ('LA-IPPC'). Installations permitted under this regime are known as 'A2' installations. Use this form if you are sending an application for a 'Part A2' installation to a Local Authority under the Environmental Permitting (England and Wales) Regulations 2007 ("the EP Regulations"), SI 2007/3538.

Before you start to fill in this form
You are strongly advised to read relevant parts of the Defra general guidance manual issued for LA-IPPC and LAPPC, republished in 2008 and available at http://ww.defra.gov.uk/environment/ppc/localauth/pubs/guidance/manuals.htm. This contains a list of other documents you may need to refer to when you are preparing your application, and explains some of the technical terms used. You will also need to read the relevant sector guidance note, BREF note or Process Guidance note as relevant. The EP Regulations can be obtained from The Office of Public Sector Information, or viewed on their website at http://www.opsi.gov.uk/stat.htm.

Which parts of the form to fill in
You should fill in as much of this form as possible. The appropriate fee must be enclosed with the application to enable it to be processed further. When complete return to:

Environmental Protection Officer, Environmental Health Department, Huntingdonshire District Council, Pathfinder House, St. Mary's Street, Huntingdon PE29 3TN or e-mail: envhealth@huntsdc.gov.uk

If you require any help or advice on how to set out the information we need please contact us at the above address or telephone 01480 388363.

Other documents you may need to submit
There are number of other documents you will need to send us with your application. Each time a request for a document is made in the application form you will need to record a document reference number for the document or documents that you are submitting in the space provided on the form for this purpose. Please also mark the document(s) clearly with this reference number.

Using continuation sheets
In the case of the questions on the application form itself, please use a continuation sheet if you need extra space; but please indicate clearly on the form that you have done so by stating a document reference number for that continuation sheet. Please also mark the continuation sheet itself clearly with the information referred to above.

Copies
Huntingdonshire District Council's public register is kept electronically and would appreciate your application to be submitted electronically. If you are sending the application in hardcopy please ensure that the application will be scanned so ensure the application is scanner friendly

A - Introduction

A1.1 Name of the installation

East Anglian Galvanizing Ltd.

A1.2 Please give the address of the site of the installation

Old North Road, Sawtry
……

Postcode……. PE28 5XN ……Telephone……..01733 346664

Ordnance Survey national grid reference *8 characters, for example, SJ 123 456*

T	L	1	7	6	8	3	4

A1.3 Existing authorisations:

Please give details of any existing LAPC or IPC authorisation for the installation, or any waste management licences or water discharge consents, including reference number(s), type(s) and local authority:

NONE

……

Please provide the information requested below about the “Operator”, which means the person who it is proposed will have control over the installation in accordance with the permit (if granted)

A2.1 The Operator – Please provide the full name of company or corporate body

EastAnglian Galvanizing Ltd.

Trading/business name (if different)

……

Registered Office address ……

Stafford Street, Willenhall, West Midlands

……Postcode…….WV13 1RZ

Principal Office address (if different)……

……

……Postcode:…… ……

Company registration
number…….947332……

A2.2 Holding Companies
Is the operator a subsidiary of a holding company within the meaning of Section 736 of the Companies Act 1985?

No ☐ Yes [X]

Name of ultimate holding company……B E Wedge Holdings Ltd.

Registered office address……

Stafford Street, Willenhall, West Midlands

……Postcode……WV13 1RZ

Principal Office address (if different)
……

……

……

……Postcode……

Company registration number: ……336600

A3.1 Who can we contact about your application?

It will help is to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator. This could be an agent or consultant rather than the operator.

Name ……..Robert Duxbury

Position……Director – Process Development

Address……Wedge Group Galvanizing Ltd.

……Stafford Street, Willenhall, West Midlands

……Postcode……WV13 1RZ

Telephone number……01902 630311

Fax number……01902 603173

E. Mail address……Robert.duxbury@wedge-galv.co.uk

B - About the Installation

Please fill in the table below with details of all the current activities in operation at the whole installation.

In **Column 1, Box A**, please identify all activities listed in Schedule 1 to the EP Regulations that are, or are proposed, to be carried out in the stationary technical unit of the installation.

In **Column 1, Box** B please identify any directly associated activities that are, or are proposed, to be carried out on the same site which:

* have a technical connection with the activities in the stationary technical unit
* could have an effect on pollution

In **Column 2, for Boxes A and B**, please quote the Chapter number, Section number, A(2) or B, then paragraph and sub-paragraph number as shown in Part 2 of Schedule 1 to the EP Regulations. *[For example, Manufacturing glass and glass fibre, unless falling within Part A(1) of that Section, where melting capacity of the plant is more than 20 tonnes per day*, *would be listed as Chapter 3, Section 3.3, Part A(2)(a).]*

B1.1 Installation table for new permit application

COLUMN 1	**COLUMN 2**
Activities in the Stationary Technical Unit	**Schedule 1 References**
Surface Treating Metals and Plastic Materials	Chapter 1, Section 2.3,
	Part A(2) (a)

COLUMN 3	**COLUMN 4**
Directly associated activities	**Schedule 1 References**

B1.2 Why is the application being made?

[X] the installation is new

[ ] The installation is existing, but changes to the installation or to the EP Regulations means that an LA-IPPC A2 permit is required.

B.1.3 Site Maps

Please provide:-

* A suitable map showing the location of the installation clearly defining extent of the installations in red

Doc Reference EAG(S) B1.3.1…….

* A suitable plan showing the layout of activities on the site, including bulk storage of materials, waste storage areas and any external emission points to atmosphere

Doc Reference EAG(S) B1.3.2…….

* A suitable plan showing the site drainage system and all discharge points to drainage or watercourses.

Doc Reference EAG(S) B1.3.3…….

B2 The installation

Please provide in this section written information about the aspects of your installation listed below. We need this information to determine whether you will operate the installation in a way in which all the environmental requirements of the EP Regulations are met.

B2.1 Describe the proposed installation and activities and identify the foreseeable emissions to air, water and land from each stage of the process (this will include any foreseeable emissions during start up, shut down and any breakdown/abnormal operation)

The use of process flow diagrams may help to simplify the operations

Doc Reference: …EAG(S) B2.1…….

B2.2 Once all foreseeable emissions have been identified in the proposed installation activities, each emission should be characterised (including odour) and quantified.

- atmospheric emissions should be categorised under the following

  (i) point source (e.g. chimney/vent, identified by a number and detailed on a plan)
  (ii) fugitive source (e.g. from stockpiles/storage areas).

If any monitoring has been undertaken please provide the details of emission concentrations and quantify in terms of mass emissions. If no monitoring has been undertaken please state this.

(Emission concentration = e.g. milligrams per cubic metre of air; mass emission = e.g. grams per hour, tonnes per year)

- water emissions should be identified at discharge points and copies of any discharge consents from either the Environment Agency or sewerage undertaker should be submitted, detailing the permitted discharge limits.

  Doc Reference: ……EAG(S) B2.2…….

B2.3 For each emission identified, describe the current and proposed technology and other techniques for preventing or, where that is not practicable, generally reducing the emissions and the impact on the environment as a whole. If no techniques are currently used and the emission goes directly to the environment without abatement or treatment this should be stated.

Doc Reference: …EAG(S) B2.3…….

B2.4 Identify the raw and auxiliary materials, other substances and water that you propose to use in carrying on the activities listed in the table in B1.1.

Doc Reference: …EAG(S) B2.4…….

B2.5 Characterise and quantify each waste stream from the installation and describe the proposed measures for waste prevention and reduction. Please also include waste management, issues storage and handling of the waste. [For each waste stream, identify if an environmental appraisal has been undertaken, and provide details; if not please state why an appraisal has not been undertaken. If you propose any disposal of waste, explain why recovery of that waste is technically and economically impracticable, and go on to describe the measures planned to minimise the production of that waste so as to avoid or reduce any impact on the environment.]

Doc Reference: …EAG(S) B2.5…….

B2.6 Identify if there may be a discharge of any List I or List II substance and if any are identified, explain how the requirements of the Groundwater Regulations 1998 (SI 2746) have been addressed (see attached lists). Also describe the current techniques used to prevent and reduce discharges to groundwater.

Doc Reference: …EAG(S) B2.6…….

B2.7 Provide a breakdown of the proposed energy consumption and generation by source and end-use, and describe the proposed measures for improvement of energy efficiency. If you have entered a climate change levy agreement please provide details.

Doc Reference: …EAG(S) B2.7…….

B2.8 Describe the proposed systems to be used in the event of unintentional releases and their consequences. This must identify, assess and minimise the environmental risks and hazards, provide a risk-based assessment of any likely unintentional releases, including the use of historical evidence. If no assessments have been carried out please explain

Doc Reference: …EAG(S) B2.8…….

B2.9 Detail the following with respect to noise and vibration

(i) the main sources of environmental noise and vibration as identified from your proposed installations' activities (including infrequent sources);

(ii) Identify the nearest noise sensitive locations and include any relevant environmental noise measurement surveys which have been undertaken;

(iii) The current and proposed technology and techniques for the control of noise.

If no assessment has been carried out, please explain.

Doc Reference: …EAG(S) B2.9…….

B2.10 Describe the proposed measures for monitoring all identified emissions including any environmental monitoring, and the frequency, measurement methodology and evaluation procedure proposed (e.g. particulate matter emissions, noise measurements). Include the details of any monitoring which has been carried out which has not been requested in any other part of this application. If no monitoring is proposed for a particular emission from the installation please state the reason.

Doc Reference: ……EAG(S) B2.10……

B2.11 Describe the proposed measures to be taken, to avoid any pollution risk to land and return the site of the installation to a satisfactory state upon definitive cessation of activities, you may wish to refer to the site report requested at B3.1 below.

Doc Reference: ……EAG(S) B2.11……

B2.12 Provide detailed procedures and policies of your proposed environmental management techniques, in relation to the installation activities described.

Doc Reference: ……EAG(S) B2.12……

B3 Site report

B.3.1 Please provide a site report that demonstrates the condition of the land on the site of the installation. The report must identify any existing or potential sources of contamination, quantifying the presence of materials in, on or under the land which may constitute a pollution risk either in terms of toxic or polluting potential or the potential generation of toxic, flammable or asphyxiant gases. The report should consider, in relation to such sources the potential existence of pathways via which the contaminants travel, and the proximity and nature of potentially sensitive receptors.

During consideration of the likely presence of materials and the design of any intrusive sampling strategies, particular regard should be given to the locations and extent of any former or existing potentially contaminative uses and the locations, nature and likely emissions to land of processes forming part of the installation.

It is acceptable to provide site reports undertaken for other purposes, (e.g. planning applications, which have been carried out up to 6 months prior to submitting this application). Older site reports may, at the discretion of the local authority, be accepted where a further site survey and risk assessment based on the present condition of the site are submitted.

Note: As a first step you should undertake a desk study to produce the information necessary for the report. If that study suggests that there are matters that warrant more detailed investigation, then site-surveying work may be necessary.

Doc Reference: ……EAG(S) B3.1.RJ……

B4 Impact on the environment

Please provide written information about the impact the installations' emissions may have on the environment as listed below.

B4.1 Provide an assessment of the potential significant local environmental effects of the foreseeable emissions (e.g. is there a history of complaints, is the installation in an air quality management area?)

Doc Reference: ……EAG(S) B4.1……

B4.2 Provide an assessment of whether the installation is likely to have a significant effect on sites of special scientific interest (SSSIs) or European protected sites and, if it is, provide an assessment of the

implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc) Regulations 1994 (see appendix 2 of Annex XVIII of the General Guidance Manual).

Doc Reference: ……EAG(S) B4.2……

B5 Environmental statements and the non-technical summary

B5.1 Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment)(England & Wales) Regulations 1999/293, or for any other reason with respect to the installation? If there has been no such assessment, have there been any screening opinions or directions?

No [X] Yes [ ]

Please supply a copy of the environmental impact assessment and details of any decision made

Doc Reference: ……

B5.2 Please provide a non-technical summary of all the information required above. This will enable the public to understand your installation and its environmental impact when viewing the public register.

Doc Reference: ……EAG(S) B5.2……

B6 National consultee

We will use the information in this section to identify who we will consult about your proposals

B6.1 In which Primary Care Trust (formerly health authority)/Health Board area is the installation located?

Cambridgeshire Primary Care Trust

If premises are on a boundary please give names of all relevant authorities

……..

……

B6.2 Could the installation involve the release of any substance into a sewer vested in a sewerage undertaker?

No [X] Yes [ ]

Please name the sewerage undertaker……

B6.3 Are there any sites of special scientific interest (SSSIs) or European protected sites which are within 2 kilometres of the installation?

No [ ] Yes [**X**]

Please give names of the sites

AVERSLEY WOOD

Doc Reference: ……[See EAG(S) B4.2]……

B7 Planning Status

B7.1 Where the installation may involve a specified waste management activity we cannot issue a permit unless one of the following applies, please indicate which of the following applies to the installation:

NOT APPLICABLE

☐ You have planning permission (please enclose copy of decision notice)

Doc Reference ……

☐ You have a certificate of lawful existing use of development (please enclose copy of certificate)

Doc Reference ……

☐ You have an established use certificate (please enclose copy of certificate)

Doc Reference ……

☐ The General Permitted Development Order applies Please give details (please enclose copy of relevant paperwork)

Doc Reference ……

☐ Planning permission is not required (please say why and enclose written confirmation from the planning authority)

Doc Reference ……

For further advice on the above planning issues, please contact the local planning authority.

B8 Additional information

Please supply any additional information that you would like us to take account of in considering this application.

Doc Reference ……

C - Fees and Charges, Information Handling, and Declaration

C1 Fees and Charges

The enclosed charging scheme leaflet gives details of how to calculate the application fee. Your application cannot be processed unless the application fee is correct and enclosed.

C1.1 Please state the amount enclosed as an application fee for this installation:

For the local authority

£ 3085.00 (cheques should be made payable to Huntingdonshire District Council)

For the Environment Agency

£ 0 (cheques should be made payable to The Environment Agency)

We will confirm receipt of this fee when we write to you acknowledging your application.

C1.2 Please give any company purchase order number or other reference you wish to be used in relation to this fee.
…….20687…….

C2 Annual subsistence charges

If we grant you a permit, you will be required to pay an annual subsistence charge, failure to do so will result in revocation of your permit and you will not be able to operate your installation.

C2.1 Please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges within your finance section.

FTAO: Mr P Bayford, East Anglian Galvanizing Ltd., Old North Road, Sawtry

Postcode:…….PE28 5XN
……Telephone:…….01733 346664…….

C3 Commercial confidentiality

C3.1 Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial or industrial confidentiality?

No [X] Yes [ ]

Please provide full justification, considering the definition of commercial confidentiality within the EP Regulations.

Doc Reference …….

C3.2 Is there any information in the application that you believe should be kept from the public register on the grounds of national security?

No [X] Yes [ ]

Do not write anything about this information on the form. Please provide full details on separate sheets, plus provide a copy of the application form to the Secretary of State/ Welsh Ministers for a direction to exclude information on grounds of national security.

C4 Data Protection

The information you give will be used by the local authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and or disclose any of the information you give us in order to:

- consult with the public, public bodies and other organisations,
- carry out statistical analysis, research and development on environmental issues,
- provide public register information to enquirers,
- make sure you keep to the conditions of your permit and deal with any matters relating to your permit
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law,
- offer you documents or services relating to environmental matters,
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows)
- assess customer service satisfaction and improve our service.

We may pass on the information to agents/ representatives who we ask to do any of these things on our behalf.

It is an offence under regulation 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else), to:

- make a false statement which you know to be false or misleading in a material particular,
- recklessly make a statement which is false or misleading in a material particular
- intentionally to make a false entry in any record required to be kept under any environmental permit condition
- with intent to deceive, to forge or use a document issued or required for any purpose under any environmental permit condition.

If you make a false statement

- we may prosecute you, and
- if you are convicted, you are liable to a fine or imprisonment (or both).

C5 Declaration: previous offences (delete whichever is inapplicable)

I/~~We~~ certify

EITHER

No offences have been committed in the previous five years which are relevant to ~~my~~/our competence to operate this installation in accordance with the EP Regulations.

~~OR~~

~~The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the regulations:~~

~~Doc Reference~~ ……

Signature……

Name……Robert Duxbury……

Position……Director – Process Development……Date……..

C6 Declaration

C6.1 Signature of current operator(s)*

I/~~We~~ certify that the information in this application is correct. I/We apply for a permit in respect of the particulars described in this application (including supporting documentation) I/We have supplied.

Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf.

For the application from:

Installation name:……East Anglian Galvanizing Ltd.

Signature……

Name……Robert Duxbury……

Position……Director – Process Development Date……

Signature……

Name……

Position……Date……

** Where more than one person is defined as the operator, all should sign. Where a company or other body corporate – an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

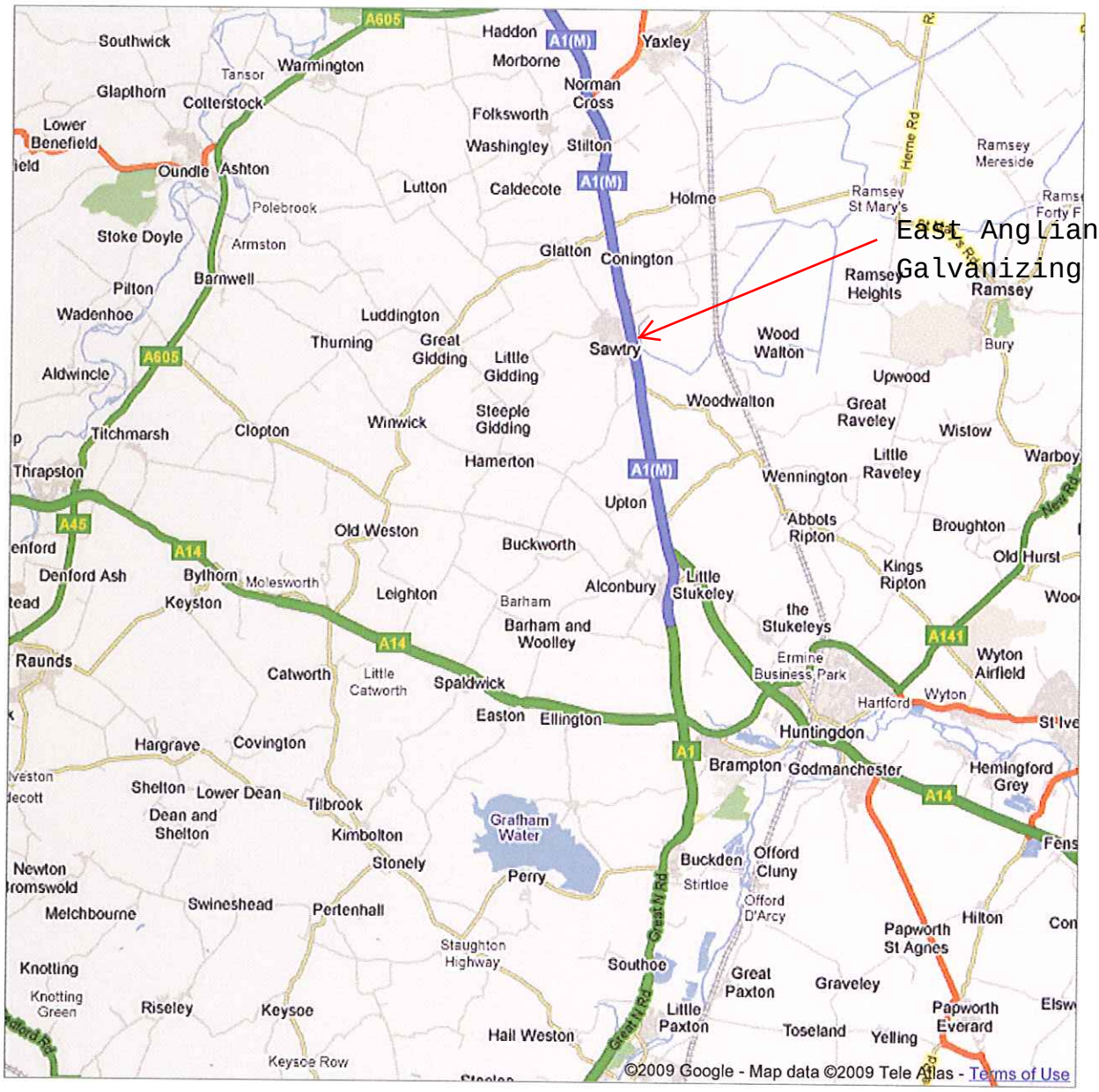
March 2009

EAST ANGLIAN GALVANIZING LTD

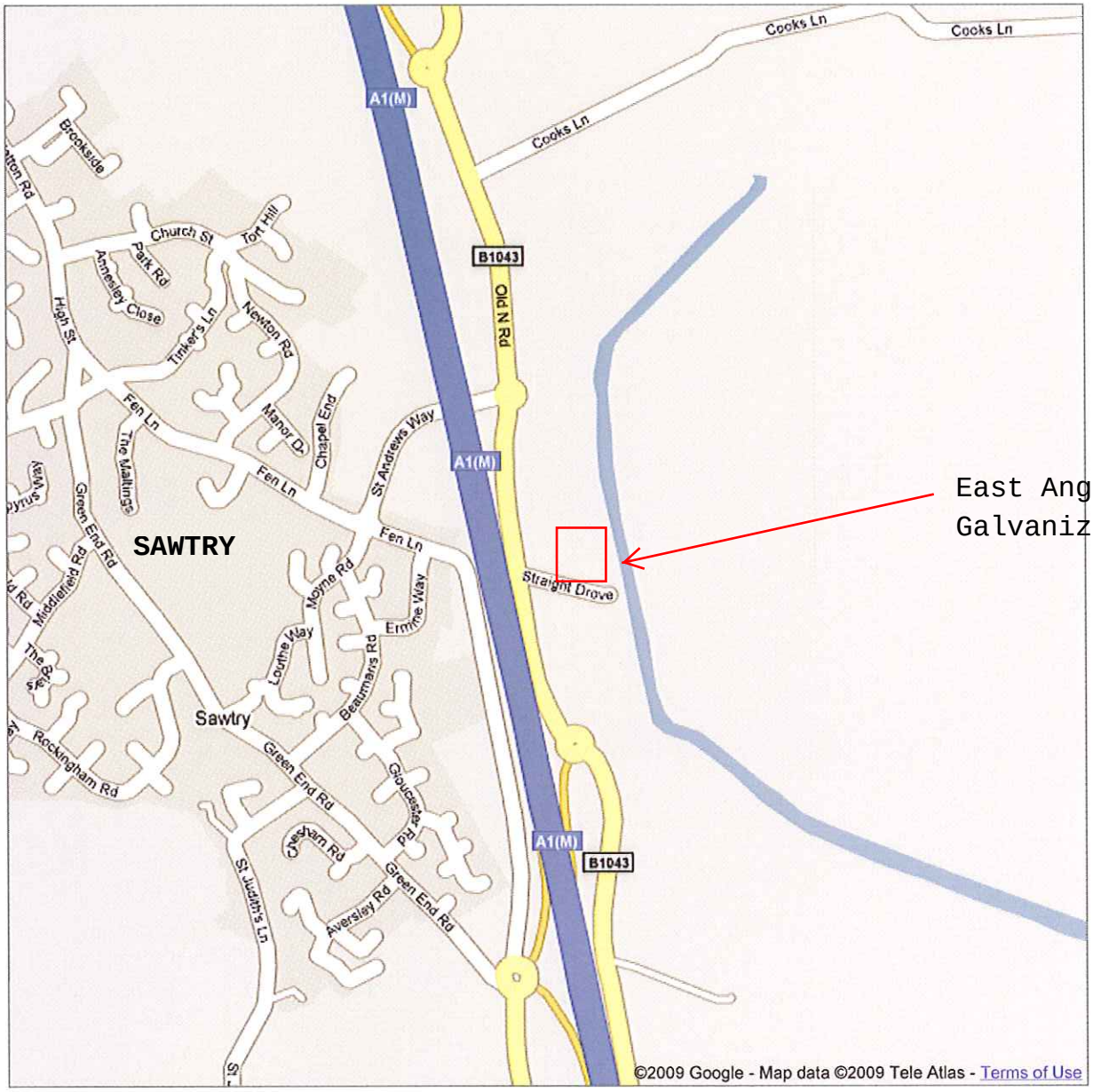
Application for an 'A2' Permit

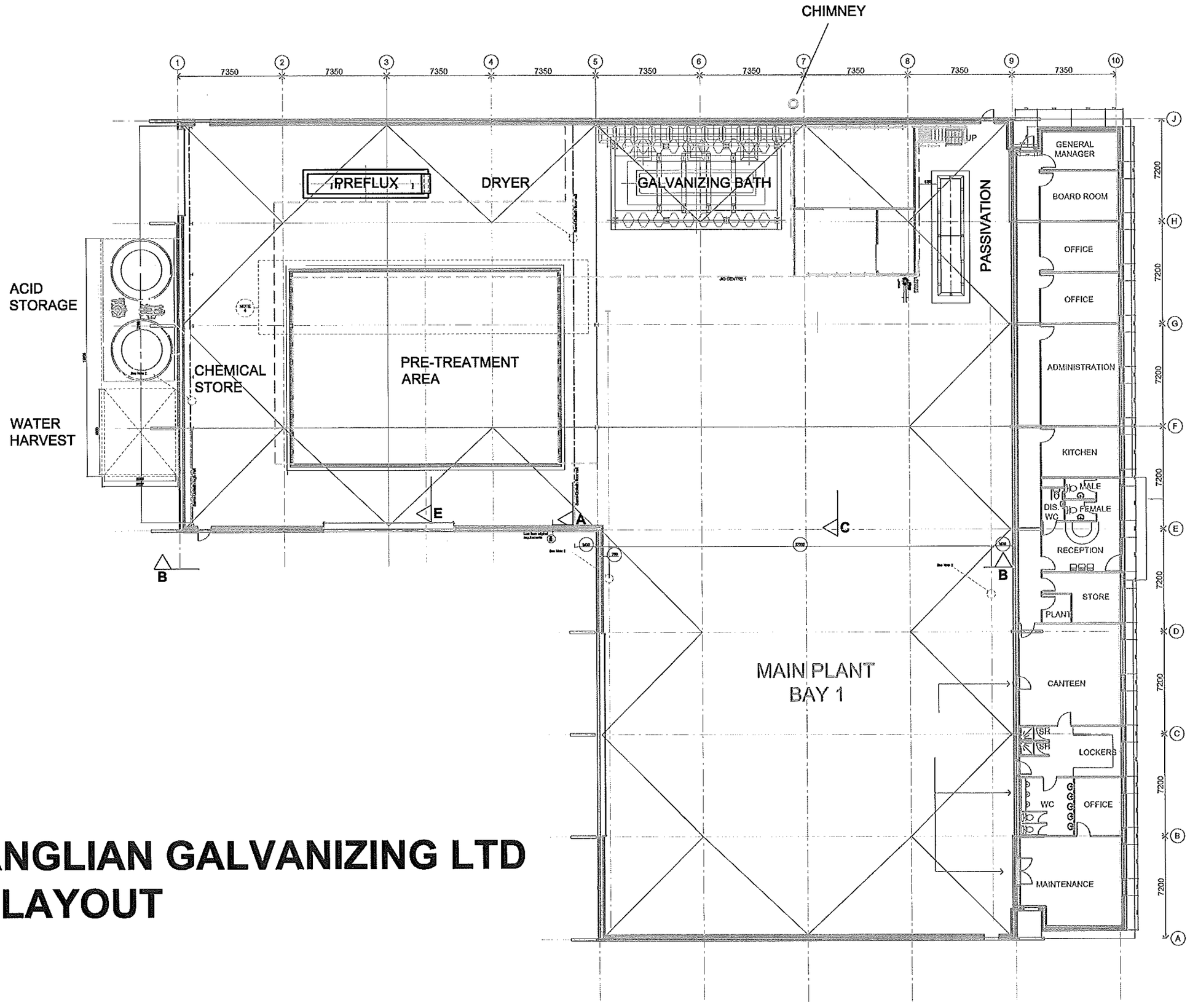
CONTENTS

East Anglian Galvanizing location map **EAG(S) B.1.3.1**

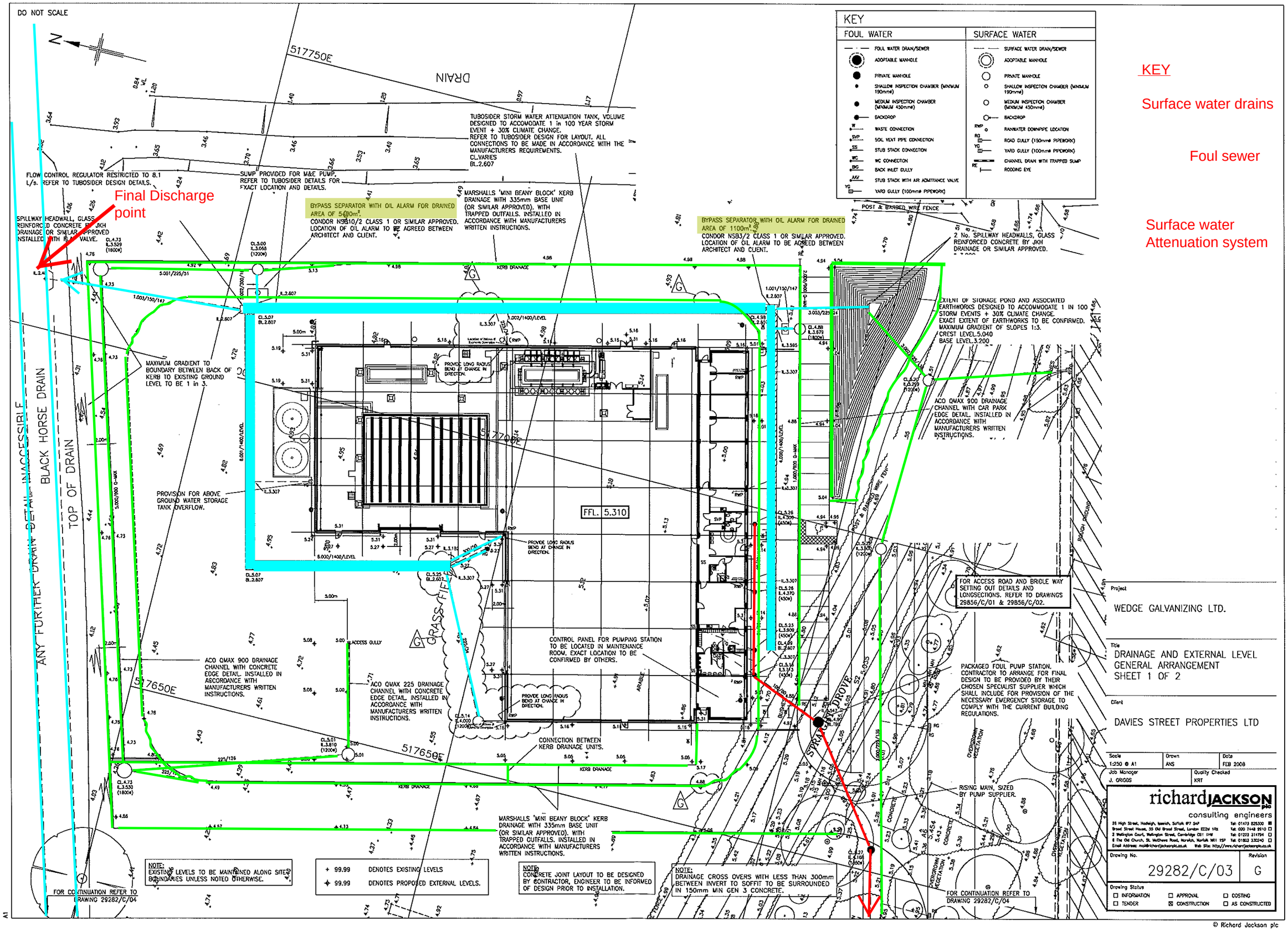


Google Maps UK





EAST ANGLIAN GALVANIZING LTD
PLANT LAYOUT



KEY

Surface water drains

Foul sewer

Surface water Attenuation system

EAG(S) B2.1 PROPOSED INSTALLATION AND ACTIVITIES

B2.1.0 The Galvanizing Process

The galvanizing process involves pre-treating steelwork components and fabricated items in various solutions for 'cleaning' prior to dipping into a bath of molten zinc. The galvanized work is then left to cool by air or is quenched in a further process tank.

The pre-treatment lines incorporate the following tanks: -

B2.1.0.1 Degreasing

Work is immersed in a hot alkaline degrease solution (40 - 70°C) in order to remove any oil or grease that may be present.

Operators are trained to ensure that the highest degree of control is used to minimise spillage and carryover of degreasing solution. ***(BAT 6)***

The degreasing tank is covered during non-working times in order to reduce evaporation losses and increase energy efficiency. ***(BAT 7)***

The degrease solution is heated from a heat exchange unit that uses 'waste' heat from the galvanizing furnace. The heat is thermostatically controlled and the tank is insulated. ***(BAT 8)***

Steam emissions are given off to atmosphere from the surface of the tank.

At regular intervals (normally every12 months) a build-up of sludge is removed from the bottom of the tank and taken away as special waste for disposal.

B2.1.0.2 Pickling

Work is immersed in a tank containing dilute hydrochloric acid where any oxidation of the steel (surface rust) and mill scale is removed.

The acid is maintained typically at strengths between 5 – 14% and weekly titration checks are carried out to determine acid strength and iron content in order to provide optimum pickling parameters (in line with the Kleingarn pickling system). ***(BAT 9)***

When the acid is no longer suitable for effective pickling a quantity is pumped out to a waste storage tank prior to being sent away for treatment and disposal as hazardous waste. The process tank is topped up or replaced with 'fresh' acid (20 - 32% strength) and diluted if necessary to create a working solution.

The acid is not heated and is used at ambient temperature. ***(BAT 10)*** It is possible for small amounts of hydrogen chloride gas to be emitted to atmosphere during pickling and the levels released are measured on a regular basis for health and safety (COSHH) reasons. All recorded data show levels well below the maximum exposure levels.

B2.1.0.3 Acid Stripping

The 'weakest' acid tank is nominated to be the stripping tank and this is used for stripping zinc from reject / modified work and jigs, hooks and baskets. ***(BAT 11)***

Again as the effectiveness of the stripping tank is depleted the waste acid is pumped to the waste storage tank and then tankered away as hazardous waste for treatment and disposal.

B2.1.0.4 Rinsing

After the work has been pickled correctly it is immersed in a static water rinse tank in order to wash away the acid from the surface.

The rinse water may be used for topping-up the acid pickling tanks or for use in making up a new acid tank when the 'fresh' concentrated acid needs to be diluted with water. ***(BAT 12 & 70)***

B2.1.0.5 Fluxing

After the work has been rinsed it is immersed in a hot pre-flux tank (55 - 80°C) in order to prevent any oxidation taking place prior to the work being dipped in the molten zinc.

Steam emissions are given off to atmosphere from the surface of the tank.

The plant utilises a filter press in order to assist in controlling the build up of iron in solution. ***(BAT 13)***
However, an amount of sludge will still build up at the bottom of the tank and this will be taken away as necessary as hazardous waste for treatment and disposal.

This operation is known as 'dry fluxing' and a special 'low fume flux' is used as an aqueous solution. This special flux is used to vastly reduce fume emissions created at the galvanizing bath when the work is lowered in to the molten zinc. ***(BAT 14)***

The preflux tank is covered during non-working times in order to reduce evaporation losses and increase energy efficiency.

B2.1.0.6 Drier

After the work has been pre-fluxed it is placed in a drier where the temperature of the work is elevated to over 100°C.

The drier is heated with a dedicated gas fired burner and the warm air is re-circulated.

B2.1.0.7 Galvanizing

After the work has been pre-fluxed it is taken to the galvanizing bath and then lowered into molten zinc at a temperature that is normally between 440 - 452°C.

As the work is lowered into the zinc the temperature is brought up to the same temperature as the molten zinc and a metallurgical reaction takes place which creates zinc/iron alloy layers at the surface. This fully bonded zinc coating gives the steelwork excellent corrosion protection.

As the work is being lowered into the zinc a fume is given off from the dried preflux film on the work and this is contained within a steel enclosure above the galvanizing bath. ***(BAT 15 & 17)*** All doors fitted to the enclosure are closed during immersion of the work except where work is 'double-dipped' because it is larger than the size of the galvanizing bath. ***(BAT 20)***

The fume is extracted from the enclosure and ducted to an external stack where it is released to the atmosphere. The use of the 'low fume flux' ensures that the required emission limits are adhered to without the need for abatement equipment.

The enclosure remains in place with the access doors closed whilst work is lowered into the bath and until the fume that is produced has subsided. ***(BAT 18)***

Occasionally zinc ammonium chloride in an aqueous solution is used as a spray on the work in order to maintain quality. This is applied sparingly and kept to a minimum consistent with good operational practice in order to minimise emissions to atmosphere. ***(BAT 16)***

'Ash' is formed on the surface of the galvanizing bath (zinc oxide) and this is removed carefully to avoid excessive fume being created. ***(BAT 19)***

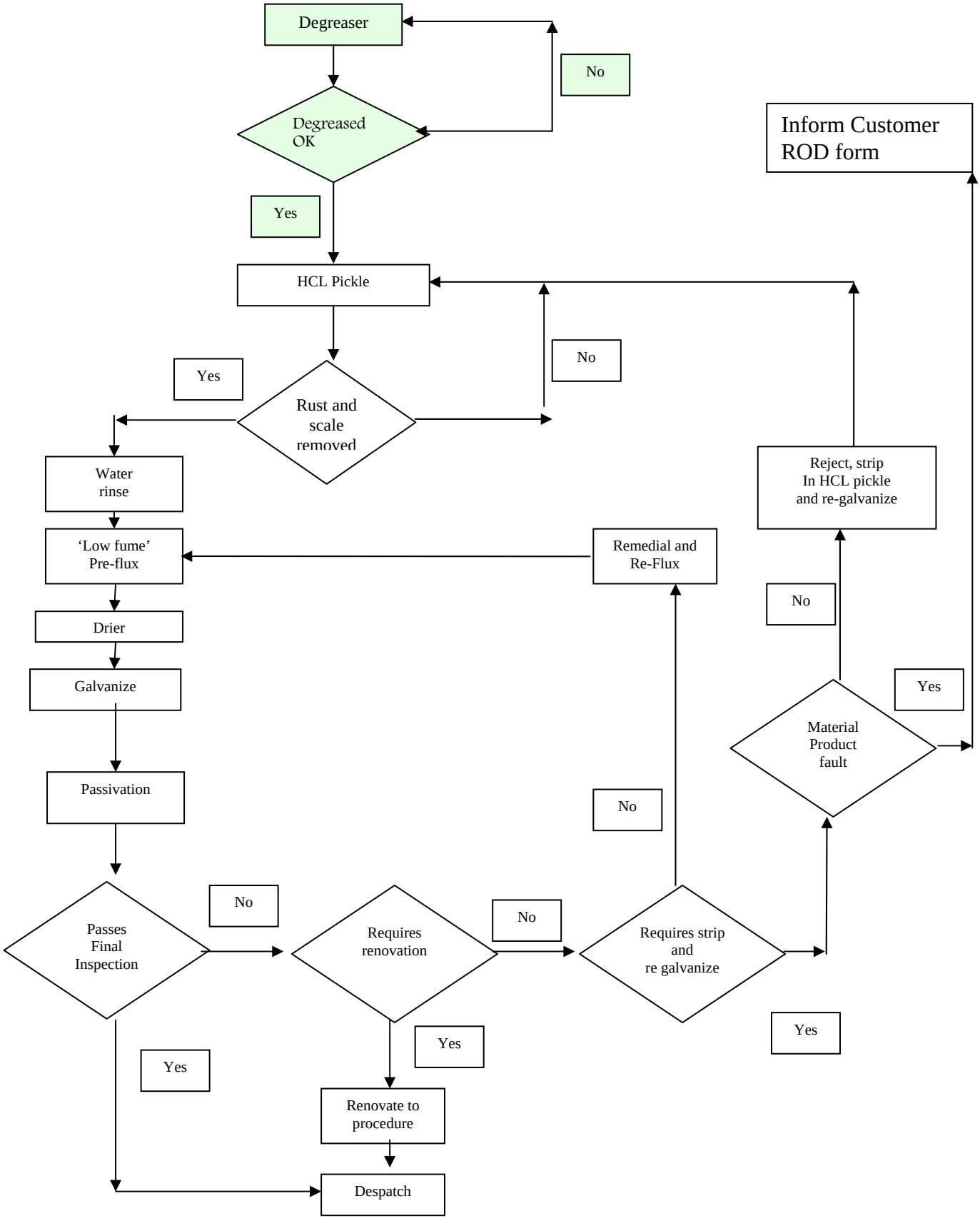
The zinc ash is sold as a by-product for it to be recycled where the zinc content is recovered. ***(BAT 21)***

B2.1.0.8 Post Treatment

After the work has been galvanized it is immersed in a passivation tank which contains a very dilute proprietary passivate solution operated to manufacturer's recommendations.

The work is lowered in carefully in order to avoid spillage and splashing. Steam is emitted to atmosphere as the work is 'quenched'. ***(BAT 22)***

B2.1.1 PROCESS FLOW CHART



EAG(S) B2.2 CHARACTERISATION OF EMISSIONS

B2.2.1 Atmospheric Emissions

B2.2.1.1 Degreasing

Steam is emitted from the surface of the heated degreasing tank.
This is dissipated within the factory. (Fugitive source).

B2.2.1.2 Pickling

It is possible for very small amounts of hydrogen chloride gas to be released during the pickling operation.
These emissions have been measured under the COSHH regulations and have been found to be well below the maximum exposure levels.
They are dissipated within the factory. (Fugitive source).
The acid is operated at ambient temperature in order to minimise any emissions.

B2.2.1.3 Prefluxing

Steam is emitted from the surface of the heated preflux tanks.
This is dissipated within the factory. (Fugitive source).

B2.2.1.4 Galvanizing

When work is immersed in the galvanizing bath a 'white' fume is released that consists mainly of ammonium chloride.
This fume is captured within the enclosure and is extracted for discharge to atmosphere through a stack (shown on site plan **B1.3.2**) which is 3 metres above the roof height of the factory. (Point source). ***(BAT 27)***
Regular emission tests will be carried out in order to demonstrate compliance with the required emission limits. ***(BAT 23)***

The waste gases from the galvanizing bath furnace are emitted to atmosphere through an external stack (shown on site plan **B.1.3.2**). (Point source).
There are no visible emissions from this source. ***(BAT 24)***

B2.2.1.5 Passivation

Steam is emitted from the surface of the passivation tank.
This is dissipated within the factory. (Fugitive source).

B2.2.2 **Point Source Emissions to surface water and sewer**

There is no water treatment facility on site and all process solutions are tankered off-site for treatment and disposal. ***BAT (38)***

Surface water is collected from the entire factory roof and is stored in a 50,000 litre capacity tank. This rainwater harvesting system is used to provide for process water requirements, e.g. evaporation losses and make up water for process solutions.

The rainwater that falls on the yard area of the site is ducted to an underground attenuation system with a capacity of approximately 325,000 litres. This drains to the local watercourse via a controlled flow in order to prevent localised flooding. The single surface water discharge point from site is shown on the drainage plan **B1.3.3.** (Point source).
A gate valve will be fitted to the final discharge point so that in the event of a pollution incident occurring (major spillage or leak) it can be closed in order to prevent contamination of the local watercourse. ***BAT (35)***

Interceptors have been incorporated in the surface water drainage system in order to prevent oil contamination of the local watercourse. ***BAT (37)***

There are no surface water or process water discharges to the foul sewer.

B2.2.3 **Point Source Emissions to Groundwater**

There are no intentional point source emissions of List I and List II substances to groundwater. ***(BAT 39)***

B2.2.4 **Odour Emissions**

Although the majority of the hydrochloric acid used within the galvanizing industry is by-product acid Wedge Group ensures that the organic content (if present at all) is kept to an absolute minimum in order to prevent any odours being released from the process.

There are no detectable odours outside the process boundary. ***(BAT 50)***

EAG(S) B2.3 TECHNOLOGY/TECHNIQUES FOR PREVENTING/REDUCING EMISSIONS

B2.3.1 Emissions to Atmosphere

B2.3.1.1 Pickling

Fugitive emissions of hydrogen chloride are kept to a minimum by only using acid at ambient temperature and ensuring that the working concentration of the acid is controlled within set limits.
(BAT 40 & 41)

B2.3.1.2 Galvanizing

The fume that is created during immersion of work into the galvanizing bath is contained within a steel enclosure above the bath and is extracted to atmosphere.

The final emission of total particulate to atmosphere complies with the emission limit of 15 mg/m³.

The approach taken to reduce emissions from the galvanizing bath is to replace the conventional preflux with a 'low fume flux'. This has the effect of reducing emissions at source rather than applying 'end-of-pipe' technology (bag filter).

The main contributor to creating the fume is the quantity of ammonium chloride present in the flux. The 'low fume flux' replaces the majority of the ammonium chloride with potassium chloride which does not produce fume.

The fume that is created during immersion of work into the galvanizing bath is contained within a steel enclosure above the bath and is extracted to an external stack.

Tests over several years at similar plants within Wedge Group Galvanizing Ltd. have demonstrated that emissions from the process are well within the final emission limit of 15 mg/m³ and are achieved without the need for abatement equipment. ***(BAT 40 & 41)***

B2.3.2 Emissions to Surface Water, Sewer and Groundwater

There are no deliberate emissions to the surface water and foul sewer drains or to groundwater.

Tests will be carried out to establish levels of zinc and ammonia in the surface water discharges.

A detailed site drainage plan has been produced showing the routing of all installation drains, subsurface pipework, sumps and storage vessels. ***(BAT 42)***

In the event of a pollution incident occurring (major spillage / leakage) a gate valve will be fitted to the final surface water discharge point that can be operated in order to prevent any contaminated water being discharged from site. ***(BAT 43)***

The installation is not within a Groundwater Source Protection Zone.

All sumps and operational areas subjected to liquids and potential spillages have an impervious membrane incorporated in their design. ***(BAT 44 & 45)***

All sumps and bunds are designed to hold at least 110% of the contents of the largest storage vessel contained within them. ***(BAT 46)***

Storage tanks are fitted with high level alarms / volume indicators to warn of overfilling. ***(BAT 47)***

All tanks, sumps and bunds will be visually inspected on a regular basis in accordance with a preventative maintenance programme. ***(BAT 48)***

Interceptors have been incorporated in the drainage system to prevent oil contamination of the surface water. ***(BAT 49)***

EAG(S) B2.4 RAW MATERIALS

The following raw materials are used on site: -

Alkaline degreasing product
Hydrochloric acid
Acid inhibitor
Alkaline reagents
'Low fume flux'
Zinc
Zinc alloys
Passivation solutions
Gas oil
Diesel
Paint remover

(Details of the above products are held within the COSHH files retained on site.)

Water - process use
Annealed wire - for jigging

B2.4.1 Storage of Raw Materials

Operators are trained to ensure that deliveries of raw materials are carried out in such a way to prevent noise, spillage, leakage and dust arising during transfer. ***(BAT 1)***

Raw materials are kept undercover and the storage area is hard surfaced. ***(BAT 2)***

Liquids are stored in areas that are adequately bunded.

Operators are also instructed to maintain a high standard of housekeeping and any spillages that should occur are cleared as soon as possible. ***(BAT 4 & 5)***

B2.4.2 Acid Storage

The concentrated hydrochloric acid that is purchased is stored in a dedicated 20 tonnes capacity storage tank that is surrounded by an impermeable bund.

Checks are carried out to verify the integrity of both the storage tank and the bund on a regular basis and will be detailed in the Preventative Maintenance Programme.

Deliveries of concentrated acid to the storage tank are made using either the air pad discharge method direct from the delivery tanker or by utilising a dedicated acid pump that is also used for dispensing acid into the relevant process tanks

Emissions to air whilst delivering concentrated acid are minimised by 'scrubbing' in a water-scrubbed packed column. ***(BAT 3)***

B2.4.3 Raw Material Inventory

An inventory is maintained for all raw materials used on site and stocks are checked on a weekly basis.

Only raw materials that have been specified at Group level will be used on site and these are reviewed on a regular basis. ***(BAT 62)***

All raw materials are checked upon receipt in order to ensure that they meet specification.

EAG(S) B2.5 WASTE PREVENTION AND REDUCTION

B2.5.1 The main waste streams are identified below and waste minimisation techniques are discussed.

B2.5.1.1 Degreasing

The heated alkaline degreasing solution is used to remove oil and grease from customer's work.

Contamination of this tank depends upon the type and quantity of work being galvanized and the various contaminants that may be present on the work as received from the customer.

It is therefore largely beyond the company's control to limit the build-up of emulsified oil within the degrease solution and also the oily sludge that precipitates to the bottom of the tank.

Periodically the sludge is removed from the tank and sent off-site for treatment and disposal.

When the emulsified oil content within the solution becomes too great, causing the efficiency of the degrease solution to decrease, the complete contents of the tank are replaced. This operation is infrequent (approx. every 2 - 4 years) and the discarded solution is tankered off-site as a hazardous waste for treatment and disposal.

An environmental appraisal demonstrates that there is no economical value associated with these wastes and therefore on-site recovery or treatment is not a viable option.

B2.5.1.2 Pickling

Hydrochloric acid is used to remove surface oxidation (rust) and mill-scale from the customer's work in order to 'clean' the surface ready for galvanizing.

A 'new' acid tank is made up using a mixture of concentrated hydrochloric acid and water.

In order to reduce waste and to operate the process more efficiently the rinse water can be used as make-up water.

As pickling proceeds the acid concentration falls and the iron content increases to the point where the acid is not pickling efficiently.

Methods are used to optimise the pickling solution, where possible, by disposing of some of the depleted acid and 'topping-up' the solution

with ‘fresh’ acid. This has the effect of increasing the acid strength and reducing the iron content. (Kleingarn System).

Iron sludge will also precipitate to the bottom of the tank and eventually the contents of the whole tank may have to be removed and a ‘new’ tank made up.

Zinc contamination in the acid will also contribute to a ‘weaker’ solution. The zinc may come from rejected work that has to be stripped and re-galvanized, galvanized work that has been modified by the customer and requires re-galvanizing or jigs and hooks used for attaching the work during processing.

In order to reduce the amount of waste acid being produced one of the pickling tanks is designated as the ‘stripping’ tank where all work that contains zinc should be processed prior to being pickled in a ‘normal’ tank.

Also any waste acid being sent off-site as hazardous waste for treatment and disposal should be taken from the ‘stripping’ tank in preference to taking ‘stronger’ acid from the other tanks.

The strength of the acid and iron content for each tank is checked using a standard titration method on a weekly basis in order to enable management to take appropriate action. ***(BAT 111)***

A ‘Key Performance Indicator’ target has been set for acid utilisation based on acid consumed (in kilo-grammes) per tonne of steel galvanized. This will be reviewed on an annual basis and compared with other companies belonging to Wedge Group Galvanizing Ltd. This forms the basis of the waste minimisation audit. ***(BAT 63)***

An environmental appraisal reveals that methods do exist for ‘re-cycling’ acid and for removing both zinc and iron from solution. However, at this stage they are considered to be not viable economically.

Uses for iron-rich hydrochloric acid (ferric chloride) are being investigated and these possible requirements may assist in reducing waste volumes in the future.

B2.5.1.3 Rinsing

Hydrochloric acid is washed from the surface of the work during the rinsing operation in order to prevent contamination of the preflux solution and to reduce the amount of iron ‘salts’ reaching the galvanizing bath.

Iron starts to precipitate to the bottom of the tank as long as the pH of the solution is maintained above 3.

If the rinse tank becomes too acidic or the iron content is too high the contents may have to be replaced with fresh water.

An environmental appraisal demonstrates that the 'contaminated' water may be used for topping-up an acid tank or making-up a new acid tank. This will assist in reducing waste production. ***(BAT 70)***

If the 'contaminated' water cannot be used then it is taken off-site as hazardous waste for treatment and disposal.

B2.5.1.4 Fluxing

The work is immersed into the preflux solution in order to prevent further oxidation of the 'cleaned' work and also to assist in 'wetting' of the work during galvanizing.

It is important to maintain low iron levels within the solution to prevent excessive dross being produced in the galvanizing bath and also to assist in controlling the amount of zinc applied to the finished work.

Iron will precipitate to the bottom of the tank and form a sludge and this needs to be removed on a 'regular' basis (usually 6 – 12 monthly intervals). The operation involves decanting the preflux solution into an empty tank and then removing the sludge to be taken off-site for treatment and disposal as a special waste.

The preflux solution can then be returned to the tank and replenished with water and product.

When the tank becomes saturated with iron the complete contents will need to be removed for treatment and disposal. This is an infrequent occurrence (normally 3 –5 yearly intervals).

We will be using a filter press to filter iron particles from the flux in an attempt to control the amount of iron building up in solution and thereby reducing the frequency for the tank to be de-sludged or renewed

Careful management of the preflux solution is required to ensure that the fumes being generated at the galvanizing bath remain within the required emission limits.

An environmental appraisal shows that there is no way of avoiding the build-up of iron and therefore waste will be generated from this process. However, by ensuring correct and efficient use and maintenance of the pickling and rinse solutions and also using a filter press the amount of iron building-up in the solution can be minimised.

B2.5.1.5 Galvanizing

The surface of the molten zinc in the galvanizing bath is exposed to atmosphere and is continually oxidizing. This forms zinc oxide on the surface, commonly known as zinc ash.

The ash is removed from the bath on a very regular basis and is stored in steel containers until it is sold as a by-product for the zinc content to be recycled.

Zinc dross is formed in the galvanizing bath due to iron from the work dissolving in the zinc and reacting to form dross particles that precipitate to the bottom. This is removed on a regular basis and is placed in moulds whilst still molten.

The dross is also sold as a by-product to be recycled into zinc oxide.

B2.5.1.6 Passivation

Work is immersed into a water quench containing a dilute proprietary passivation solution. The passivation process has the effect of retaining the overall brightness of the work and reducing the onset of wet storage stain (white rust).

Over a period of time sludge develops in the bottom of the tank and this has to be removed on an infrequent basis (normally every 12 months). The sludge is taken off-site for disposal as a hazardous waste.

The generation of sludge is directly proportional to the volume of work being processed through the plant.

An environmental appraisal indicates that there is no viable alternative use for this sludge other than being classified as a waste.

B2.5.2 Waste Minimisation

B2.5.2.1 Water Use

The company does not use large amounts of water either for domestic or process use.

The installation is attempting to use as much rainwater as possible for process requirements and the rainwater harvesting system has been installed specifically for this purpose.

Water consumption is checked on a regular basis and annual consumption is compared with other Wedge Group companies by the Process Development Director. ***(BAT 66 & 68)***

Efforts are continually being made to minimise water consumption, mainly with covering heated tanks during non-working times and ensuring that the operators are fully trained to minimise carry-over and spillage from the process tanks. ***(BAT 67)***

B2.5.2.2 Process Wastes

Process wastes are all taken off-site for treatment and disposal. These wastes are classified as hazardous waste and the quantities produced are recorded together with relevant transport documentation and the destination. ***(BAT 71)***

Wastes are not stored on site, other than acid waste awaiting collection.

The zinc ash produced is sold as a by-product for the zinc to be re-cycled and reclaimed. It is stored under cover in steel containers and kept dry at all times. ***(BAT 67, 68 & 69)***

When the ash is transported lorries are sheeted immediately after loading. ***(BAT 71)***

B2.5.2.3 General Wastes

Wastes are sorted and segregated and placed in dedicated containers and skips which are clearly marked. ***(BAT 72 &74)***

It is extremely important that wastes classified as being hazardous are not mixed with the general wastes. ***(BAT 73)***

B2.5.2.4 Annual Review

A system will be put in place to carry out an annual review in order to analyse all waste streams and ensure that the best environmental options are being used for dealing with them. Comparisons will be made against other Wedge Group companies. ***(BAT632 & 64)***

This will be outlined in the company's Environmental Management System.

EAG(S) B2.6 DISCHARGES TO GROUNDWATER

B2.6.1 Groundwater Regulations - List I Substances

The company can confirm that there are no direct or indirect discharges of any of the List I substances (detailed below) to groundwater. ***(BAT 39)***

List I: -

- Organohalogen compounds and substances which may form such compounds in the aquatic environment
- Organophosphorus compounds
- Organotin compounds
- Substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment
- Mercury and its compounds
- Cadmium and its compounds
- Mineral oils and hydrocarbons
- Cyanides

B2.6.2 Groundwater Regulations - List II Substances

The company can confirm that there are no direct or indirect discharges of any of the List II substances (detailed below) to groundwater. ***(BAT 39)***

List II: -

- The following metalloids and metals and their compounds:

Zinc	Tin	Copper
Barium	Nickel	Beryllium
Chromium	Boron	Lead
Uranium	Selenium	Vanadium
Arsenic	Cobalt	Antimony
Thallium	Tellurium	Molybdenum
Titanium	Silver	

- Biocides and their derivatives not in List I
- Substances which have a deleterious effect on the taste or odour of groundwater and compounds liable to cause the formation of such substances in such water and to render it unfit for human consumption
- Toxic or persistent organic compounds of silicon and substances which may cause the formation of such compounds in water, excluding those which are biologically harmless or are rapidly converted in water into harmless substances
- Inorganic compounds or phosphorus and elemental phosphorus
- Fluorides
- Ammonia and nitrates

B2.6.3 All of the process solutions are contained in dedicated tanks or held in specific storage areas. These tanks and storage areas are either located in a large sump or are fully bunded to prevent any spillage or leakage being able to affect the land or watercourse. ***(BAT 45)***

The company operates a maintenance system whereby the integrity of the tanks, sumps and bunds are checked on a regular basis. Details of this will be documented in the company's Environmental Management System.

A detailed Containment Integrity Check will be carried out on an annual basis.

The routing of all installation drains and subsurface pipework has been established and these are shown on the drainage plan **B1.3.3**. ***(BAT42)***

Process areas are covered with an impervious surface and where spillages can occur on the floor area the surfaces have been designed to incorporate a slope back to the sump.

External surface areas are normally concreted with sealed construction joints and regular inspections are carried out in accordance with a maintenance programme to confirm their integrity. ***(BAT 44)***

With these measures in place it is felt that there is a low risk of pollution to land or water. ***(BAT 43)***

EAG(S) B2.7 ENERGY

Wedge Group Galvanizing Ltd is committed to using energy efficiently and has entered into a Climate Change Levy Agreement with the Government.

A copy of the Group's Environmental & Energy Policy Statement (2008) is shown in section **B2.7.3**

The relevant CCL agreement number for East Anglian Galvanizing Ltd is NFA/GAWDG/0019

B2.7.1 Basic Energy Efficiency Requirements

An annual report is issued by the Director for Process Development that gives details on the total energy consumption of the installation, expressed in terms of 'primary' energy used per tonne of throughput. ***(BAT 82)***

Energy consumption is monitored on a regular basis and an annual energy efficiency programme is produced. This is audited by the Director for Process Development. The programme addresses issues such as covering heated process tanks during non-working times, etc. ***(BAT 83 &84)***

A maintenance contract exists for the regular checking and maintenance of the burners supplying heat to the galvanizing baths.

B2.7.2 Additional Energy Efficiency Requirements

Where economically feasible heat recovery systems are utilised.

Examples :- Waste heat from the galvanizing bath furnace is used to heat the degrease and pre-flux tanks. This is achieved through the use of a heat exchange unit. All heated tanks are also covered during non-working times. ***(BAT 86)***

The use of Combined Heat and Power has been investigated but its use is not considered to be economical. ***(BAT 87)***

B2.7.3

March 2008

WEDGE GROUP GALVANIZING LTD

ENVIRONMENTAL & ENERGY POLICY STATEMENT

Wedge Group Galvanizing Ltd operates a hot dip galvanizing service through several galvanizing facilities throughout the UK and is committed to conducting its business in an environmentally responsible manner. We accept that concern for the environment and sustainability should influence the service that Wedge Group Galvanizing Ltd provides and should be incorporated and promoted within that service.

We will ensure that these aims are met through the provision of an Environmental Management System (EMS) framework that allows each facility to develop a site specific EMS to manage and control their environmental impacts giving due regard to local circumstances. All business management systems must be maintained to meet or exceed the requirements of this policy statement. Each Director and General Manager is therefore accountable for reinforcing the requirements of this policy, considering the scope of their business activities and operations.

Wedge Group Galvanizing Ltd recognises that it has a duty to care for the environment and seeks to improve its energy use and environmental performance by:

- Reducing the environmental impact of its operations and activities to a practical minimum by the prevention of pollution, waste minimisation and efficient use of its resources.

- Ensuring compliance with all relevant environmental regulations, codes of practice and other requirements.

- Continually promoting energy efficiency and implementing cost effective energy reduction solutions.

- Providing appropriate environmental training for our staff and working to promote environmental awareness amongst our suppliers and contractors.

We recognise that the operations at our facilities have potential for environmental impacts and this policy extends to cover the premises that we occupy and the

materials that we use in order to control these impacts. We will pursue these commitments by providing adequate resources, training and support.

We will actively promote the awareness of this policy amongst all of our employees to ensure their maximum commitment in meeting its objectives.

J F Woolridge Chairman & Chief Executive, Wedge Group Galvanizing Ltd.

EAG(S) B2.8 UNINTENTIONAL RELEASES

B2.8.1 Incident Prevention and Mitigation Plan

Wedge Group Galvanizing Ltd has devised its own Environmental Management System (EMS) that is used at all plants within the Group.

The EMS is controlled and updated by the Director for Process Development and his assistant. It is held on the Group's intranet computer system, accessible at all plants.

Each plant has its own 'Site Specific' section and within this section an "Incident Risk Analysis and Hazard Identification Plan" is held for East Anglian Galvanizing Ltd.

B2.8.2 Environmental Incident Reporting

In the event of an Environmental Incident occurring an "Environmental Incident Report" is completed.
A copy of this is located on the EMS.
A copy of this report is also forwarded to the Group's Director for Process Development.
Depending upon the type of incident the relevant Local Authority / Environment Agency / Water Supplier is notified.

B2.8.3 Emergency Procedure

In the event of a major pollution incident that could affect the surface water drainage system a gate valve will be closed at the final discharge point from site, in order to prevent any contamination of the local watercourse.

EAG(S) B2.9 NOISE AND VIBRATION

B2.9.1 Noise

The company does not operate noisy machinery and the process does not generate excessive noise.

However, the nearest residential housing is approximately 200 metres from the site boundary and the company is very conscious of noise being generated from the site that could disturb our immediate neighbours.
However, it should be noted that the main A1(M) motorway lies between the site and Sawtry village.

The main contributors to noise are sourced from the handling of customer's work and the movement of vehicles and forklift trucks around the premises.

Operators are trained to handle steelwork carefully and give due consideration to noise being generated through steelwork being lowered or dropped on to the floor and against other forms of steelwork.

The main extractor motor and fan that deals with emissions from the galvanizing bath is located at the rear of the factory, facing in the opposite direction to the nearest noise receptors. ***(BAT 95)***

B2.9.2 Vibration

The company does not operate equipment or processes that give significant causes of vibration.

EAG(S) B2.10 MONITORING OF EMISSIONS

B2.10.1 Galvanizing Bath Emissions to Air

The main emission from the plant is the fume released to atmosphere from the galvanizing bath during dipping of customer's work.

This emission is tested isokinetically on an annual basis to ensure that the amount of total particulate being released to atmosphere is within the emission limit of 15 mg/m³.

The company carrying out the emission testing will be accredited to MCERTS standards. ***(BAT 104)***

Records of the tests are kept on site for a minimum of two years where they are available for examination by the regulator. ***(BAT 96)***

The regulator will be informed of the date and approximate time of the test at least 7 days prior to the testing being carried out. Results of the test will be forwarded to the regulator within 8 weeks of the completion of the sampling. ***(BAT 97, 98 & 99)***

Should there be any adverse results from this monitoring activity they will be investigated immediately. The cause will be identified and corrective action taken with as much detail as possible being recorded regarding the cause and extent of the problem and the action taken to rectify the situation.

The regulator will be notified as soon as possible and a re-test will be organised to demonstrate compliance. ***(BAT 100)***

The relevant sampling ports are located in positions in the stacks that comply with BS EN 13284-1 or BS ISO 9096: 2003. ***(BAT1012)***

The exhaust flow rates from the galvanizing bath extraction system have been set to ensure that fume is captured efficiently and taken away from the working area. ***(BAT 105)***

There is no addition of dilution air to the extraction system in order to achieve the emission concentration limit. ***(BAT 106)***

A routine maintenance programme will ensure that where practical flues and ducts are cleaned on a regular basis to prevent accumulation of materials. ***(BAT 32)***

No restriction (such as a plate, cap or cowl) is fitted to the final opening of the stacks. ***(BAT 34)***

The main emission stack for the plant is 3 metres above the roof height and is sufficient to ensure adequate dispersion of the small emissions under normal conditions. ***(BAT 26 & 27)***

B2.10.2 Other Emissions to Air

The pickling operation releases small amounts of hydrogen chloride to atmosphere as fugitive emissions. The hydrochloric acid is operated at ambient temperature in order to minimise any emissions.

These emissions are not 'captured' or extracted from the factory and regular occupational exposure tests are carried out to demonstrate that emissions are well below the workplace exposure limit.

Other fugitive emissions to atmosphere from process tanks consist of steam which is dissipated readily within the factory.

B2.10.3 Emissions to Water

The plant will take samples from the final surface water discharge point on an annual basis to monitor levels of zinc and ammonia in order to ensure that they do not have an environmental impact on the nearest controlled water.

EAG(S) B2.11 AVOIDANCE OF POLLUTION RISK TO LAND

B2.11.1 Pollution Avoidance Measures

As shown in the Raw Materials List **(B2.4)** the company uses various hazardous / harmful chemicals and substances on site.

All of the raw materials have a designated storage area and where necessary this area is provided with a bund to both contain and prevent any spillages or leakage.

The process tanks that contain hazardous / harmful liquids are also located within their own designated bunds.

Regular maintenance checks are carried out to ensure the integrity of these bunds and sumps in order to prevent any pollution of land or water.

These procedures are referred to in the Group's Environmental Management System and are included in the Preventative Maintenance Programme.

The main risk of pollution to land could occur during the removal, by tanker, of special waste from site.

Procedures are in place to ensure that a spillage or leakage does not occur when these operations are being undertaken and emergency procedures are also in place.

B2.11.2 Site 'Baseline' Report

Prior to developing the site a detailed ground investigation survey was carried out by Richard Jackson PLC in April 2004. This report is included in Section **EAG(S) B3.1.RJ**

The site was previously used for agricultural purposes prior to Wedge Group purchasing the land.

B2.11.3 Cessation of Activities

The Environmental Management System contains a Decommissioning Plan in the event that East Anglian Galvanizing should decide to surrender the 'A2' Permit.
The Richard Jackson ground investigation report (**EAG(S) B3.1.RJ**) will be used as the 'baseline' to decide whether any additional contamination of the site has taken place during the factory's lifetime.

EAG(S) B2.12 ENVIRONMENTAL MANAGEMENT SYSTEM

Wedge Group Galvanizing Ltd has devised its own Environmental Management System (EMS) that is used at all plants within the Group.

The EMS has been compiled with similarities to ISO 14001 but relates specifically to the galvanizing operations carried out within the Group.

The EMS is controlled and updated by the Director for Process Development and his assistant. It is held on the Group's intranet computer system, accessible at all plants.

Each plant has its own 'Site Specific' section.

The EMS is audited at each plant on an annual basis by either the Director for Process Development or his assistant. ***(BAT 52)***

B2.12.1 Operations and Maintenance

The Environmental Management System will reference Maintenance procedures which will include: -

- A Preventative Maintenance Schedule ***(BAT 53)***
- An inventory of essential spares and consumables ***(BAT 54)***
- Records of breakdowns and corrective action taken ***(BAT 56)***

B2.12.2 Competence and Training

The General Manager of the plant has been appointed to liaise with the regulator with regard to complaints. ***(BAT 57)***

The Management System makes reference to documented training procedures that are in place in accordance with Competence Based Development modules. ***(BAT 58 & 59)***
The company has been recognised as an Investor in People.

Procedures are in place for inducting Contractors to the company and informing them of their environmental responsibilities prior to any work being undertaken. ***(BAT 60)***

B2.12.3 Accidents / Incidents / Non-conformance

A procedure is in place for investigating accidents / incidents (including near misses) and the report identifies suitable corrective action as a follow-up. ***(BAT 61)***

EAG(S) B4.1 SIGNIFICANT EFFECTS OF FORESEEABLE EMISSIONS

Identification of Important Receptors

- Areas of Human Significance (Noise)
- Air
- Land (Soil & Groundwater)
- Landscape

B4.1.1 Areas of Human Significance (Noise)

The nearest residential area is located approx 200 metres distance from the site with the A1(M) motorway in between. The site will have a very low impact on these nearest receptors and therefore it is not intended to carry out an environmental noise survey.

B4.1.2 Air

Emissions to air have been itemised in **B2.2.1** and it is felt that these have no significant effect on the surrounding environment.

The site is not within an Air Quality Management area.

No Air Dispersion Model has been carried out because it is felt that it is not necessary.

B4.1.3 Land (Soil & Groundwater)

Due to the controls and measures taken on site it is felt that there will not be any significant emissions to land.

The main foreseeable effect of an emission to land would be the spillage or leakage of hazardous waste during its removal from site.

Procedures are in place to ensure that spillage or leakage does not occur when these operations are being undertaken and emergency procedures are also in place.

B4.1.4 Landscape

There are no anticipated environmental effects to the local landscape.

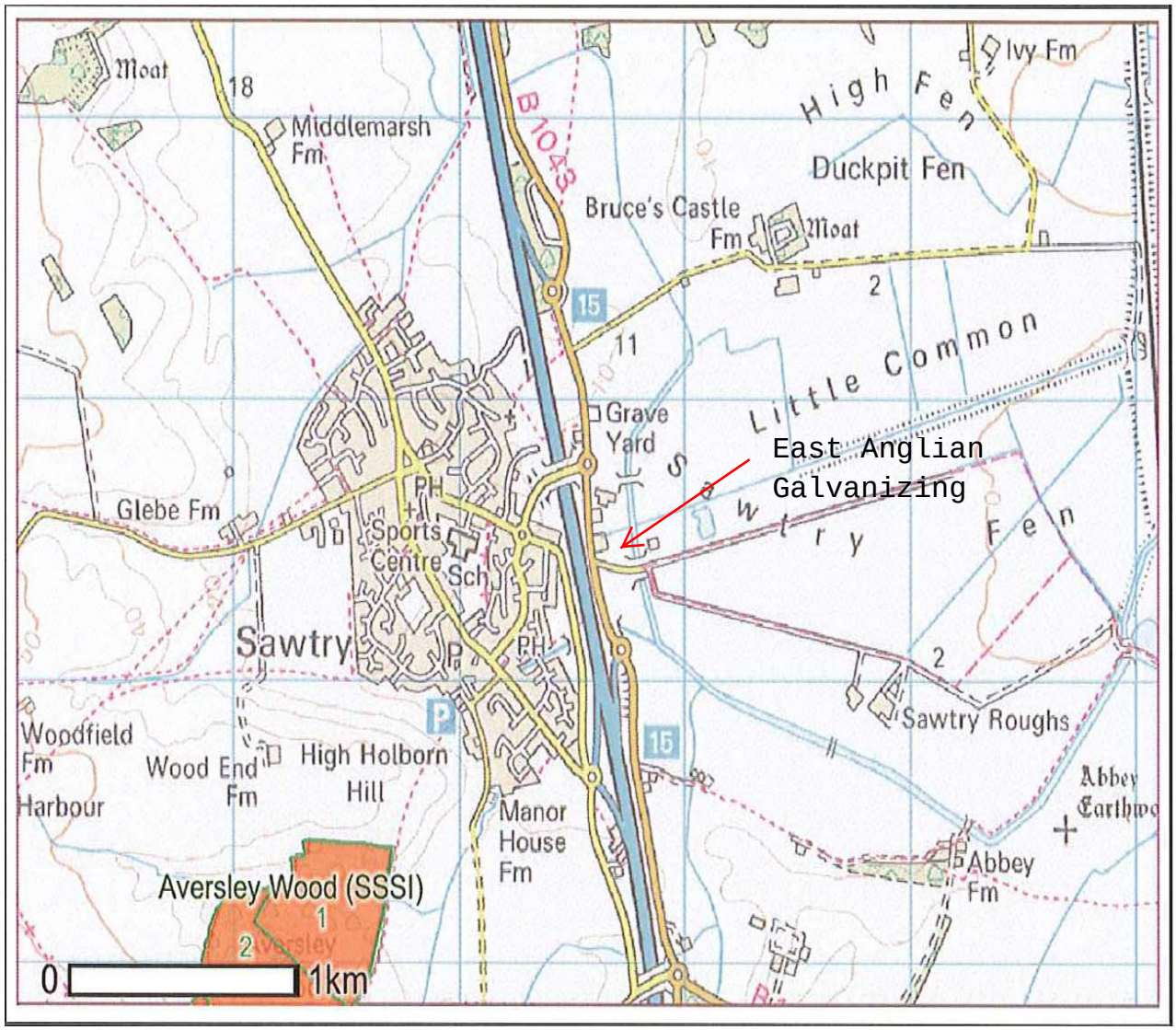
EAG(S) B4.2 EFFECT ON SITES OF SPECIAL SCIENTIFIC INTEREST

There is one Site of Special Scientific Interest (SSSI) within 2 km of the installation.

This SSSI is known as “Aversley Wood” and is situated to the south west of the installation on the opposite side of the A1(M).

It is felt that the installation will not have a significant effect on this SSSI.

There are not any other SSSIs within 2 km of the installation.



EAG(S) B5.2 NON TECHNICAL SUMMARY

The company provides a hot dip galvanizing service, offering excellent corrosion protection to steelwork fabrications and components.

No products are manufactured on site.

Hot dip galvanizing involves cleaning the work in various solutions and then dipping into a bath of molten zinc where zinc / iron alloy layers are produced on the surface.

The zinc layer provides the corrosion protection for the products giving a good working 'life' of approximately 30 – 100 years (dependant upon the surrounding environment).

The main environmental impact from the process relates to fumes being emitted at the galvanizing stage.

These fumes are collected in an enclosure and ducted to an external stack for release to atmosphere.

The company has adopted an approach to reduce 'pollution' at source, rather than apply 'end-of-pipe' technology, such as bag filters.

To this end a 'low fume flux' is used in the pre-treatment process and this enables strict emission limits to be achieved without the need for abatement equipment.

Other emissions released to atmosphere from the process, such as hydrogen chloride from the hydrochloric acid pickling tanks, are fugitive emissions and are considered to be negligible.

No treatment facilities exist on site and any waste solutions are taken off-site as hazardous waste for treatment and disposal.

The company does not have emissions to water or land.

Tight controls are maintained to ensure that all process solutions are retained within their respective tanks and these are all fully bunded.

Regular maintenance checks are carried out to ensure the integrity of the tanks, bunds and storage areas.

The company has implemented its own Environmental Management System in order to formalise all of the procedures and controls that exist on site.