

Environmental Permitting (England and Wales) Regulations 2016

Operator	Hager Engineering Limited				
Installation	Hortonwood 50				
Address	Telford				
	Shropshire				
	TF1 7FT				
Permit Reference	16/00011/PPCB/090119				
Grid Reference	SJ691137				
	Hager Engineering Ltd				
Registered Office	Hortonwood 50				
	Telford				
	Shropshire				
	TF1 7FT				
Registered Number	02777167				

Hager Engineering Ltd is hereby permitted by Telford & Wrekin Council to carry out the activity of applying a coating in solid form known as powder coating, as defined under Schedule 1, part 2, Section 6.4, Part B(a)(i) of The Environmental Permitting (England and Wales) Regulations 2016 ("The Regulations") and other activities as listed and described below within the installation boundary marked in red on the attached plan in Appendix 1 and in accordance with the conditions within this permit.

Signed:

Date: 9 January 2019

P.Trani

Name: Clair Travis

Environmental Health Officer

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

Provenance	Relevant Dates	
Date Application Made	19.10.2016	
(Deemed application)		
Date Permit First Issued	01.12.2016	
Date of Variations	03.11.2017	
Date of Latest Variation	09.01.2019	



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Introductory Note – This Introductory note does not form part of the permit.

Determination of application

Particular conditions have been inserted as representing the authority's judgement of what constitutes BAT, having regard to the statutory guidance issued by the Secretary of State and to all site specific considerations.

Description of the Installation

Hager Engineering Limited applies a dry powder coating using an electrostatic spray technique to a range of metal 'enclosures' to give them a decorative and functional appearance.

The metal enclosures are formed and fabricated on site (which is not part of the permitted activity). Once complete, the metal enclosures are surface treated with iron phosphate (degreasing) before being powder coated and finished. The stages are identified within the process flow diagram in Appendix 4.

Raw Material Storage

Degreasing chemicals are delivered to site in 205 litre drums, which are stored in a bunded area. (where it is automatically or manually dosed into the surface treatment system prior to powder coating.

Sulphuric and hydrochloric acids are delivered directly to the secure, bunded acid transfer system in intermediate bulk containers (IBC's). Caustic soda (sodium hydroxide solution) is delivered in bulk and pumped directly to internally bunded storage.

Powder used for powder coating is retained in the original 25kg closed boxes or up to 500kg bags. Powders are placed in the hopper or fed into a hopper via a vacuum, which is then fed to the spray system via a vacuum tube placed into the vacuum bag this is to minimise any emission to air.

Surface Treatment Stage 1-5

Before powder coating can be applied, the metal enclosures have to be degreased in a series of stages with tanks holding degreasing substances and rinse solutions. The cleaning system uses an alkaline degreaser and iron phosphate solution applied at temperature via spray to degrease the metal components. The degreased metal enclosures are then rinsed within the mains water tank then a de-mineralised process. The current stage configuration is listed below.

- Stage 1 75% Alkaline degreaser & 25% Phosphate degreaser tank
- Stage 2 25% Alkaline degreaser & 75% Phosphate degreasing tank
- Stage 3/4 Mains water wash tanks
- Stage 5 De-Mineralised wash tank



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The Dry-Off Oven Stage 6

Prior powder coating, the metal enclosures pass through a dry off oven to remove any remaining moisture that would have a detrimental effect on the Powder Coat application on to the components. The temperature of the dry off oven has a set point of 200 $^{\circ}$ C +/- 5 $^{\circ}$ C.

Powder Coating Stage 7

The Gema powder coating system is fitted with a closed loop powder circuit that recovers the powder coating into a cyclone separator. The powder is then sieved and returned back to the powder container. Dry powder is applied to the metal components using electrostatic technology. This is an automatic enclosed system with no emissions to atmosphere.

The Curing Oven Stage 8

Once coated, the metal enclosures are passed inter the curing oven via an overhead conveyor system. The curing oven temperature is maintained at 200 $^{\circ}C$ +/-5 $^{\circ}C$ so that the chemical reaction takes place to form a polymer structure over the metal component.

Finishing

Once the metal enclosures are cured, they are checked for any gaps in the coating. Where gaps are found, they are sprayed with solvent based coatings from an aerosol can. The emissions from this are minimal.

Waste Storage & Disposal

All waste generated by or on behalf of the organisation is subjected to our 'Duty of Care'. It is handled, stored safely and securely in suitable containers in secure & bunded Chemical/Oil storage with an internal bund that is impervious and resistant to the substances in storage and be capable of holding 110% of the capacity of the largest storage tank. This area is identified in the site layout plan within Appendix 2 Other aqueous waste is via effluent discharge consented by Severn Trent Water. Bulk waste Iron Phosphate Solution is disposed of as Hazardous Waste via an EA approved waste carrier tanker to a waste transfer/treatment centre. EWC 11.01.08 AH

Effluent Treatment

Sodium hydroxide, sulphuric and hydrochloric acids are not used within the powder coating process directly. They are used as ancillary materials to process the effluent and regenerate the ion exchange resin within the demineralisation process. Specifically:

Sulphuric Acid (Battery acid, H2SO4): Used in the effluent plant for pH correction Hydrochloric Acid (HCI): used for the regeneration of de-mineralised water plant resin Sodium hydroxide (caustic soda NaOH): Used in the effluent plant pH correction.

There are no emissions to atmosphere of the above materials.

End of Introductory Not



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Permit Conditions

General

- 1. 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.
- 2. 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.
- **3.** 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.
- 4. 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.
- **5.** 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.
 - b) Records shall be kept for a period of 2 years, unless otherwise stated.
 - c) Records shall be kept on-site for a minimum of 12 months. Records kept off-site, must be made available within 7 days of any request by the regulator.
- 6. All documentation required to be submitted to the regulator to demonstrate compliance with relevant conditions, shall be submitted in an electronic format. Submissions shall be sent to: <u>environmental.health@telford.gov.uk</u>



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7. Hager Engineering Ltd is permitted to operate an installation for the activities listed within table 1, subject to the conditions of this permit.

Table 1						
Activities listed in Environmental Permitting Regulations 2016	Description of specified activity	Limits of specified activity				
The application of 20 tonnes or more per year of coating material in solid form as described in Schedule 1, Part 2, Section 6.4(a)(i)n	The coating of metal enclosures using powder coatings	From receipt of raw materials, through to the disposal and processing of waste materials. This includes treating, handling and storage of any materials used, cleaning of plant and equipment.				
Directly associated activities	Description of directly associated activities					
The surface treatment of material prior to coating.	The degreasing of the metal enclosures using a chemical method within heated treatment tanks. The drying of metal enclosures within the 'dry off' oven.					
The curing of powder coatings and finishing	The heating of the coated metal enclosures within the curing oven. Spraying with solvent based coatings onto the finished coated metal enclosures					

8. Only the plant and equipment listed in Table 2 shall be used for the permitted activities listed in Table 1.

Table 2 – Permitted plant and equipment					
Plant and equipment	Emission Points Appendix 3				
Degreasing tanks 1-5	Emission points 1, 1a, 2 and 5.				
Dry off oven	Emission point 6				
Gema Magic Compact BA04 powder coating system. Serial number 5015.02552	No emission point to atmosphere				
Powder coating curing oven	Emission point 8				

Process Controls

- **9.** Odour emissions shall be minimised by:
 - a. Controlling oven temperatures;
 - b. Controlling tank temperatures.
 - c. Not using curing ovens to clean jigs.



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Bulk, loose, dry material – Storage and Loading

10. Dusty materials including dusty wastes shall only be stored in warehouses detailed on the site layout plan in appendix 2. Their storage and transfer shall be subject to suppression and management techniques to minimise dust emissions. No potentially dusty materials including wastes or finished products shall leave the site other than by use of enclosed vehicles.

Emissions and Monitoring Provisions

- **11.** No visible particulate matter shall be emitted beyond the installation boundary specified in Appendix 1.
- **12.** The emission requirements and methods and frequency of monitoring set out in Table 3 shall be complied with. Sampling shall be representative.

Table 3 Emission limits, monitoring and other provisions.						
Substance	Source	Emission Limits/ provisions	Type of monitoring	Monitoring frequency		
Total particulate matter	Emissions from contained processes (emission point 8) with an airflow greater than 50m ³ /minute	10 mg/m³	extractive test	Annual		
Droplets, persistent visible emissions	All releases to air (except steam and condensed water vapour).	No droplets, no persistent visible emissions	Visual observations	Daily		
Other Provisions						

- a) The reference conditions for limits in Table 1 are: 273.1K, 101.3kPa, without correction for water vapour content, unless stated otherwise.
- b) All periodic monitoring shall be representative and shall use standard methods.
- c) All periodic monitoring results shall be checked by the operator on receipt and sent to the regulator within 8 weeks of the monitoring being undertaken.
- **13.** The temperature monitor for the curing oven shall be fitted with an audible alarm warning of temperature fluctuations above or below the normal temperature range.
- **14.** The alarm fitted to the curing oven shall be tested at least once a week.



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- **15.** Any monitoring display required for compliance with the permit shall be visible to operating staff at all times.
- **16.** Corrective action shall be taken immediately if any periodic monitoring result exceeds a limit in Table 1, or if there is a malfunction or breakdown of any equipment which might increase emissions. Monitoring shall be undertaken or repeated as soon as possible thereafter and a brief record shall be kept of the main actions taken.
- **17.** All plant and equipment capable of causing, or preventing, emissions and all monitoring devices shall be calibrated and maintained in accordance with the manufacturer's instructions. Records shall be kept of such maintenance.
- **18.** The operator shall, in the case of abnormal emissions, inform the regulator without delay if there is an emission likely to have an effect on the local community.
- **19.** Records shall be kept of operator inspections, including those for visible and odourous emissions as required by table 3.

Training

20. Staff at all levels shall receive the necessary training and instruction to enable them to comply with the conditions of this permit. Records shall be kept of relevant training undertaken.



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Appendix 1. Location of Installation and Installation Boundary



Appendix 2. Site Layout Plan

Pollution Prevention Control Act 1999

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Appendix 2. Site Layout Plan continued





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Appendix 3 – Emission Points



End of Permit Conditions



Appendix 4 Process flow diagram

Pollution Prevention Control Act 1999

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This section does not form part of the permit, but contains guidance relevant to it.

Inspections

Regular inspections will be made by officers of Telford & Wrekin Council (without prior notice), in order to check and ensure full compliance with this permit. Inspection will be carried out in accordance with a risk assessment, and/or following from any complaints or applications.

BAT (Best Available Techniques)

Article 2(11) of the IPPC Directive defines "best available techniques" as follows: "the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent, and where that is not practicable, generally to reduce emissions and the impact on the environment as a whole".

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

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

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, it may apply to the council to have such information withheld from the register as provided in the Regulations.

Health and Safety at Work and Other Statutory Requirements

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



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Notification of Changes to the activity or Operator

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

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

Where the operator intends to cease the operation of an installation (in whole or in part). In the case of Part B Permits, the operator must notify the Council on the appropriate form in accordance with Regulation 24. For A2 permits, the operator must apply for a surrender, using the appropriate for and in accordance with Regulation 25 and part 1 of Schedule 5.

<u>Risk Rating</u>

Procedures and records shall be examined during inspections and will be referred to during the Department of Food and Rural Affairs (DEFRA) risk rating, carried out to determine the risk category: LOW, MEDIUM or HIGH which will determine the annual subsistence fee and the inspection frequency of the regulator.

Enforcement

The operator will be liable to enforcement action where: -

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

Any enforcement action is taken in accordance with the regulator's enforcement policy. <u>http://www.telford.gov.uk/NR/rdonlyres/240C3F4A-8E36-4C12-8311-</u> E4E57A3DF8CC/26214/MicrosoftWordEnvironmentalHealthandWellbeingEnforc.pdf



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Annual Subsistence Charge

An annual subsistence fee is payable in order to operate your installation. An invoice will be issued annually by the regulator which will include details of how to pay. The charges are based on the DEFRA risk rating Details of the risk assessment can be found at <u>http://www.defra.gov.uk/environment/ppc/localauth/fees-risk/risk.htm</u>.

You are reminded that failure to pay the subsistence fee may result on the Permit being revoked. It is an offence to operate a regulated facility without a permit and upon summary conviction liable to a maximum fine of £50,000 and/or imprisonment.

Appeal against Regulatory Action

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

http://www.planning-

inspectorate.gov.uk/pins/environment/environment/environmental_appeals/environmental_ental_permitting_appeal_form.pdf

Guidance on the appeal procedure can be found at

http://www.planning-

inspectorate.gov.uk/pins/environment/environment/environmental_appeals/environmental_permitting_guidance_notes.pdf

There are time limits for making an appeal as follows:

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

Please note:

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

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



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Contact Numbers for the Regulator

The Regulator is the Public Protection Team of Telford & Wrekin Council. They can be contacted on 01925 381 818. You may also contact them by email at any time. <u>environmental.health@telford.gov.uk</u>

Correspondence Address

All correspondence to Telford & Wrekin Council relating to this information shall be addressed to: Customer and Neighbourhood services, Public Protection, Telford and Wrekin Council, Addenbrooke House, Telford, TF3 4NT