

Variation Reference number 92/20

Schedule 2

Operator	Denso Manufacturing UK Ltd
Installation Address	Queensway Campus Hortonwood Telford Shropshire TF1 7FS
Permit Reference	04/00029/PPCB/030920
Grid Reference	SJ678130
Registered Office	Denso Manufacturing UK Ltd Queensway Campus Hortonwood Telford Shropshire TF1 7FS
Company Number	02502865

Denso Manufacturing UK Ltd is hereby permitted by Telford & Wrekin Council to carry out the activity of metal decontamination as defined under Section 2.2, Part B (b) of The Environmental Permitting (England and Wales) Regulations 2016 ("The Regulations") and other directly associated activities within the installation boundary marked in red on the attached plan in Appendix 1 and in accordance with the conditions within this permit.

ALSO

Denso Manufacturing UK Ltd is hereby permitted by Telford & Wrekin Council to carry out the activity of the coating of metal with powder coatings as defined under Section 6.4 Part B (a)(i) of The Environmental Permitting (England and Wales) Regulations 2016 ("The Regulations") and other directly associated activities within the installation boundary marked in red on the attached plan in Appendix 1 and in accordance with the conditions within this permit.



Signed:

Name: Clair Travis

Date: 3 September 2020

Environmental Health Consultant

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

Denso Manufacturing UK Ltd operates 2 regulated activities carried out in the same installation. The conditions for each permit have been consolidated into one document.

For the purposes of The Local Authority Permits for Part B Installations and Mobile Plant and Solvent Emission Activities (Fees and Charges) (England) Scheme 2017 the permitted activities are not a combined activity under the above Scheme and will be subject to a separate annual subsistence fee.

Provenance	Relevant Dates
Date Permit First Issued	06/06/2006
Date of Variations	03/01/2013
Date of Variations	30/10/2017
Date of Latest Variation	3 September 2020

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

Denso Manufacturing (UK) Ltd make heat exchangers for automotive air conditioners.

Powder coating activity

Powdered flux coating is applied within the 2 fluxing coating machines and once coated the metal components are then passed through the ovens to be decontaminated. Emissions related to the coating is captured within the same abatement as the decontamination ovens described below. The powder coating machines have in-built LEV to capture particulates during the coating process. There is no release from the LEV to atmosphere. Raw materials are kept within a designated storage area.

Metal decontamination activities

The regulated activity related to the metal decontamination within the installation:

- The decontamination of contaminants (oil) from metal components by the use of heat. The ovens are connected to a catalytic oxidiser abatement plant. These parts are made from non-ferrous metals.

Work pieces are coated with powder coating (flux) and then put through the degreasing process in one of the 3 ovens to remove the contaminants. The ovens exhaust to one of two catalytic oxidisers, which then exhaust to atmosphere through 2 insulated stacks.

The abatement plant are fitted with:

- Eurotherm three mode temperature controller to control the preheat burner and combustion chamber reaction temperature.
- Eurotherm high temperature alarms.
- Flame programmers to provide sequenced start-up, shut down and emergency shut down for pilot flame and main flame.
- Johnson ESM position proportional control motor to operate the preheat burner control valve.
- DWYER magnahelic pressure to monitor total system pressure gauges and pressure drop across the catalytic bed.

End of Introductory Note

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. This shall include records of inspections, tests and monitoring including all non-continuous monitoring, inspections and visual assessments. 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 3 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: public.protection@telford.gov.uk



Permitted activities

7. The Operator is permitted to operate an installation for the activities listed within Table 1 below, subject to the conditions of this permit.

Table 1 – Permitted activities	
Activities listed in Environmental Permitting Regulations 2016	Description of specified activity
The decontamination of non-ferrous metals as described in Section 2.2, Part B, (b)	The removal of contaminants such as oil from metal components by the use of heat.
The application of powdered coatings as described in Section 6.4, Part B, (a)(i)	The coating of metal components with a powdered material known as flux
Directly associated activities	
The storage and use of powder coating raw material	The storage of materials within the installation boundary
The storage of dusty waste materials	The storage of waste materials within the installation boundary

Permitted plant and equipment

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

Table 2 Plant and equipment	
Description	Emission points
KYK degreasing oven 1 -39kWh fitted with: <ul style="list-style-type: none"> - After burner chamber. - Eurotherm three mode temperature controller. - Eurotherm high temperature alarms. - Flame programmers. - Johnson ESM position proportional control motor. - DWYER magnahelic pressure monitor system. 	Connected to abatement plant Jones and Attwood Eco Abator C2000 - SAB
NB3 degreasing oven 2 -101kWh <ul style="list-style-type: none"> - After burner chamber - Eurotherm three mode temperature controller. - Eurotherm high temperature alarms. - Flame programmers. - Johnson ESM position proportional control motor. - DWYER magnahelic pressure monitor system. 	Connected to abatement plant Jones and Attwood Eco Abator C5000-SAB-G 60 HX
NB5 degreasing oven 3 - 196kWh <ul style="list-style-type: none"> - After burner chamber - Eurotherm three mode temperature controller. - Eurotherm high temperature alarms. - Flame programmers. - Johnson ESM position proportional control motor. - DWYER magnahelic pressure monitor system. 	

Table 2 Plant and equipment continued	
Description	Emission points
Catalytic oxidiser abatement plant 1 - Jones and Attwood Eco Abator C2000 - SAB	1
Catalytic oxidiser abatement plant 2 - Jones and Attwood Eco Abator C5000-SAB-G 60 HX	2
DENSO Norsdon M-7064682 powder coater and LEV (within heatcore area)	Internal
DENSO Norsdon M-7078248 powder coater and LEV (within radiator area)	internal

Emission limits and monitoring

9. The Operator shall carry out the monitoring requirements specified in Table 3.
10. No result from manual extractive monitoring shall exceed the emission limit concentrations specified in Table 3.

Table 3 – Emission limits and monitoring		
Substance	Emission Limit	Emission points, monitoring requirements and frequency
Total particulate matter	20 mg/m ³	Annual manual extractive monitoring – Stacks 1 and 2 Plus Continual recorded indicative monitoring of temperature as a surrogate measurement - see conditions 11 and 12
Organic compounds excluding particulate matter (VOCs)	20mg/m ³	Annual manual extractive monitoring – Stacks 1 and 2
Hydrogen fluoride	4mg/m ³	Annual manual extractive monitoring – Stacks 1 and 2
The reference conditions for limits within this table are: 273.1K, 101.3kPa, without correction for water vapour content. The reference conditions shall be normalised to 11% oxygen measured dry, averaged over the firing cycle.		

11. The temperature of the below bedchamber shall be monitored and maintained at 454°C for Catalytic oxidiser abatement plant 1 and at 425°C for catalytic oxidiser abatement plant 2.
12. Where the temperature drops below 450°C for catalytic oxidiser abatement plant 1 and 420°C for catalytic oxidiser abatement plant 2, the alarm mode shall activate and corrective actions shall be taken immediately. All alarms shall be recorded and the action taken. Records shall be made available for the regulator.



13. There shall be no visible emissions other than steam or condensed water vapour, from the emission points listed within Table 2.
14. All emissions to air shall be free of droplets.
15. There shall be no offensive odour beyond the site boundary as perceived by the regulator.
16. The operator shall develop a suitable procedure to carry out daily visible and odour assessments.
17. The operator shall conduct daily visual and odour assessments during normal operations, to determine whether emissions result in persistent visible emissions at or beyond the installation boundary. A record of the assessments shall be made available for inspection by the regulator. The assessment must include:
 - a. Location, date and time of the assessment.
 - b. Wind direction and strength.
 - c. The name of the person carrying out the assessment.
 - d. The result of the assessment and any corrective action taken.
18. 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.
19. The results of non-continuous emission testing shall be forwarded to the regulator within 8 weeks of completion of the sampling.
20. For batch processes, where the production operation is complete within 2 hours, then the extractive monitoring shall take place over a complete cycle of the activity.
21. The introduction of dilution air to achieve emission concentration limits shall not be permitted.
22. Sampling points shall be designed to comply with the British or equivalent standards.
23. The operator shall ensure that relevant stacks or ducts are fitted with facilities for sampling which allow compliance with the sampling standards.
24. The exit velocity of the stacks listed in table 3 shall be a minimum of 15m/s.
25. A cap or other restriction shall not be fitted to the stacks listed in table 3.
26. 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:
 - a. identify the cause and take corrective action;
 - b. clearly record as much detail as possible regarding the cause and extent of the problem, and the remedial action taken;



- c. re-test to demonstrate compliance as soon as possible; and inform the regulator of the steps taken and the re-test results.
- 27. All continuous monitoring readings shall be on display to appropriately trained operating staff.
- 28. Instruments shall be fitted with audible and visual alarms, situated appropriately to warn the operator of abatement plant failure or malfunction.
- 29. The activation of alarms shall be automatically recorded.
- 30. All continuous monitors shall be operated, maintained and calibrated annually (or referenced, in the case of indicative monitors) in accordance with the manufacturers' instructions, which shall be made available for inspection by the regulator.
- 31. The relevant maintenance and calibration (or referencing, in the case of indicative monitors) shall be recorded.
- 32. Any continuous monitor used shall provide reliable data >95% of the operating time. A manual or automatic procedure shall be in place to detect instrument malfunction and to monitor instrument availability.

Abnormal emissions

- 33. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator shall:
 - a. investigate and undertake remedial action immediately;
 - b. adjust the process or activity to minimise those emissions; and
 - c. promptly record the events and actions taken.
- 34. The regulator shall be informed without delay, whether or not there is related monitoring showing an adverse result:
 - a. if there is an emission that is likely to have an effect on the local community;
or
 - b. in the event of the failure of the abatement plant listed within Table 2

Operational controls

- 35. The number of start-ups and shut downs shall be kept to the minimum that is reasonably practicable.
- 36. All appropriate precautions must be taken to minimise emissions during start-up and shutdown.
- 37. Dusty materials, including dusty wastes shall be stored in closed containers and handled in a manner that avoids emissions of dust.
- 38. Internal and external transport of dusty materials shall be carried out so as to prevent or minimise airborne dust emissions.



- 39. All dusty spillages shall be cleared as soon as possible; by vacuum cleaning, wet methods, or other appropriate techniques. Dry sweeping of dusty spillages shall not be permitted.
- 40. A high standard of housekeeping shall be maintained.

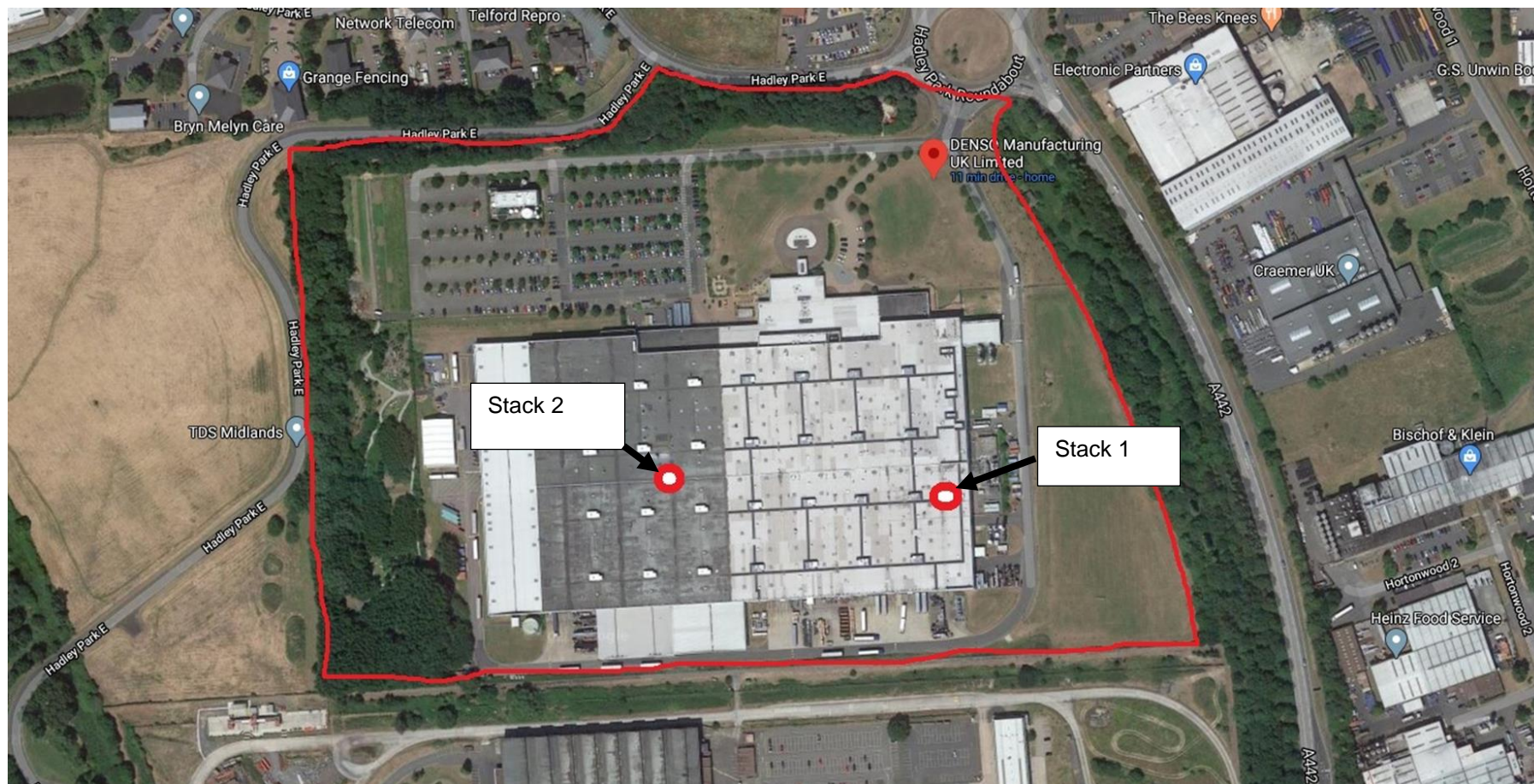
Maintenance

- 41. The operator shall have a written procedure for dealing with the failure of the abatement plant and after burners listed within Table 2.
- 42. Flues and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.
- 43. The operator shall have the following available for inspection by the regulator:
 - a. a written maintenance programme for all plant and equipment listed within table 2; and
 - b. a record of maintenance that has been undertaken.

Training

- 44. All staff whose functions could impact on air emissions from the activity shall receive appropriate training on those functions. This shall include:
 - a. awareness of their responsibilities under the permit;
 - b. steps that are necessary to minimise emissions during start-up and shutdown;
 - c. actions to take when there are abnormal conditions, breakdown of abatement plant, alarms, accidents or spillages that could, if not controlled, result in emissions.
- 45. Relevant staff shall be trained in the procedure related to visible and odour emission assessments.
- 46. The operator shall maintain a statement of training requirements for each post that carries out functions related to the requirements of this permit, and keep a record of the training received by each person. These documents shall be made available to the regulator on request.

Appendix 1. Location of Installation and installation boundary





Environmental Permitting (England and Wales) Regulations 2016

The floor plan illustrates a complex manufacturing process for pipe production. The layout is organized into several main sections:

- Initial Processing (Steps 1-4):** Located on the left side, this area includes 'Step 1', 'Step 2', 'Step 3', and 'Step 4', each with associated equipment like 'Pipe Saw Cut' and 'Pipe Bend Cut'.
- Pipe Preparation:** This section includes 'Main Alignment' (yellow), 'NB Degreasing' (yellow), and 'FMC 220 Core Assy'.
- Tool and Die Area:** A large central area labeled 'Jig Tool and Die Area'.
- Furnace and Coating:** This area includes 'FMC 220 Core Assy', 'Fluxing (Coating process)' (green), and 'NB Degreasing' (yellow).
- Mold and Casting:** This section includes 'Mold WPF (FUNG)', 'Mold Overflow Area', and 'Mold Sub WPF'.
- Heat Treatment:** This area includes 'KVK Furnace' and 'Tube Mill'.
- Material Flow:** Arrows and labels indicate the flow of materials through the process, from 'Material Feed Area' to 'Mold Overflow Area' and 'Mold Sub WPF'.

The plan also shows various storage areas, including 'MOP and Spares' and 'Pipe Storage', and a 'Degreasing' area (yellow) near the 'KVK Furnace'.

End of Permit Conditions

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 of the environment as a whole.

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

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.

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 form and in accordance with Regulation 25 and part 1 of Schedule 5.

Risk Rating

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.

<http://www.telford.gov.uk/NR/rdonlyres/240C3F4A-8E36-4C12-8311-E4E57A3DF8CC/26214/MicrosoftWordEnvironmentalHealthandWellbeingEnforc.pdf>

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

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

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

Contact Numbers for the Regulator

The Regulator is the 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. public.protection@telford.gov.uk

Correspondence Address

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