CANNOCK CHASE DISTRICT COUNCIL

THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2010

PERMIT TO OPERATE AN INSTALLATION FOR THE COATING AND SURFACE TREATMENT OF METALS

PERMIT REFERENCE NO. IPPC 2.3 A(2) (iii) EPR 09/13

JCB Cab Systems
Power Station Road
Rugeley
Staffordshire
WS15 2WA

Regulator Contact Details

Cannock Chase District Council
Environmental Health
Civic Centre
PO Box 28
Beecroft Road
Cannock
WS11 1BG

Tel: 01543 462621

Emergency and out of hours contact No. 01543 462621

Fax: 01543 464213

E-mail: environmentalhealth@cannockchasedc.gov.uk

The operator should use the Local Authority emergency contact telephone number (01543 462621) for notifications required by conditions 15.1 only.

Environment Agency Hotline (0800) 807060

This introductory note does not form a part of the Permit

The following Permit is granted under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I.2010/675) ("the EP Regulations") to operate an installation carrying out one or more of the activities listed in Part A2 and B to Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions that have to be complied with.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Sector and Process Guidance Notes

The installation incorporates surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more then 30m³ (Schedule 1, Part 2, Section 2.3 Part A2(2) (a) and an activity listed under Section 6.4 Part B (a) of Schedule 1 for an allied coating process involving the use of powder paint in quantities of more than 20 tonnes in a 12 month period.

The following Sector & Process Guidance Notes have been used:
IPPC SG5 for the A2 Galvanising Sector (2006)
IPPC SG6 for the A2 Surface Treatment Using Solvents (2011).
PG 6/23 (11) – Coating of metal and plastic (2013)
PG 6/31 (04) – Powder coating including sherardizing and vitreous enamelling dry (2004)

Contacting the Regulator

This Permit has been issued by Cannock Chase District Council as the Regulator for this installation and the address above (Pg 2) is the Principle contact address for all matters relating to the Permit. The operator should use the Local Authority emergency contact telephone number (01543 462621) for notifications required by condition 15.1 only.

Confidentiality

The Permit requires the Operator to provide information to Cannock Chase District Council. The Council will place the information onto the public registers in accordance with the requirements of the EP Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to Cannock Chase District Council to have such information withheld from the register as provided in the EP Regulations. To enable Cannock Chase District Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

Your attention is drawn to the Variation Notification Procedure condition in the permit. This Permit may be varied in the future. If at any time the activity or any aspect of the activity regulated by the following conditions changes such that the conditions no longer reflect the activity and require alteration, the Regulator should be contacted.

Revocation of the permit

Where an Operator intends to cease the operation of an installation (in whole or in part) the regulator should be informed in writing, The Regulator may revoke a permit in whole or in part, and may require the operator to take steps-

to avoid a pollution risk resulting from the operation of the regulated facility; or

to return the site to a satisfactory state, having regard to the state of the site before the facility was put into operation.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the EP Regulations. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Responsibility under workplace health and safety legislation

This Permit is given in relation to the requirements of the EP Regulations. It must not be taken to replace any responsibilities you may have under Workplace Health and Safety legislation.

Appeal against permit conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Appropriate Authority, (Secretary of State for the Environment, Food and Rural Affairs, in England and the Welsh Ministers in Wales) Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations.

Appeals should be received by the Secretary of State for Environment, Food and Rural Affairs or the Welsh Ministers at the following addresses:

The Planning Inspectorate
Environment Team, Major and Specialist Casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN

Or for appeals in Wales:

The Planning Inspectorate
Crown Buildings
Cathays Park
CARDIFF
CF10 3NQ

Please Note

An appeal bought under Regulation 31 (1) (b) and Schedule 6, in relation to the conditions in a permit 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.

End of Introductory Note

Process Description

The JCB Cab Systems manufacturing facility is located north east of Rugeley town centre in Staffordshire. The National Grid Reference is 404930, 318400.

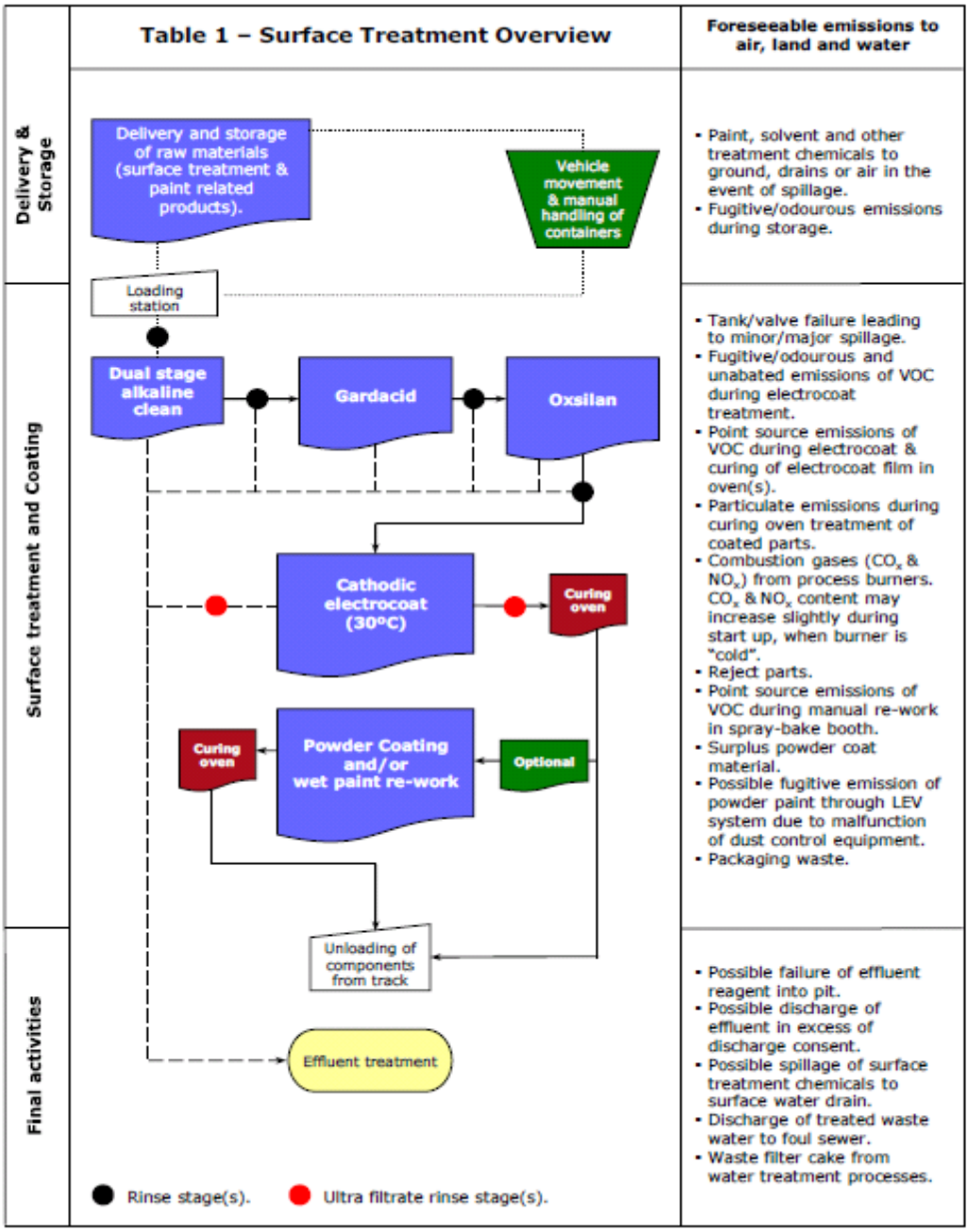
The installation comprises the multi-stage treatment of cab structures for off-highway vehicles. This involves alkaline pre-treatment cleaning and conditioning, chemical treatment (using Oxsilan), electrophoretic coating (known as cathodic electrocoat), and optional epoxy powder coating surface finish. There are two powder booths, one is automatically operated, and the other employs manual spraying techniques. There is a 95% powder recovery system on the automated booth (with 95% recovery efficiency), and the manual booth powder waste is collected for recuperative incineration (waste to energy).

The process sequence is summarised as follows:

	PRE TREATMENT													E-COAT			
TANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PROCESS	PRESSURE WASH COLD WATER	8% 60/70 deg CAUSTIC SODA	2.5% 60/70 deg CAUSTIC SODA	TOWN WATER	TOWN WATER	CITRIC @ 50deg 20%	TOWN WATER	TOWN WATER	DE-MIN WATER	OXSILAN 0.3%	DE-MIN	DE-MIN	DE-MIN	E-COAT PAINT APPLICATION	ULTRA FILTRATE/ PAINT RECOVERY SYSTEM	ULTRA FILTRATE/ PAINT RECOVERY SYSTEM	ULTRA FILTRATE/ PAINT RECOVERY SYSTEM
CURRENT EMERSION TIME (SECONDS)	192	246	250	30	27	247	142	90	172	248	111	161	104	236	84	180	84

Each treatment tank has a capacity of 25 m3, except for the elecrocoat tank, which has a capacity of 28 m3.To a lesser degree, wet paint is used on occasion to “touch up” or rectify defects which have occurred on the automated coating line, and this takes place in the “hospital” booth. The process uses natural gas as fuel for curing ovens and certain treatment tanks, and an effluent treatment plant detoxifies wastewater streams arising from the various treatment stages.

A representation of how the process operates with associated environmental impact is summarised below:



JCB Cab Systems operates an environmental management system, and is externally certified to the requirements of BS EN ISO 14001. In general terms, environmental policy sets the focus for legal compliance and continual improvement through the setting and achieving of relevant objectives, targets and management programmes.

Permit

Permit Number: **IPPC 2.3 A(2) (iii) EPR 09/13**

Cannock Chase District Council (the Regulator) in exercise of its powers under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I.2010/675), hereby permits

JCB Cab Systems Limited ("the operator"),

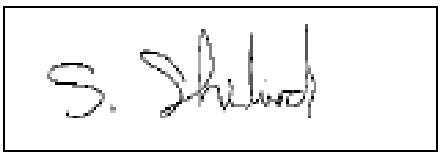
Whose registered office is:
Lakeside Works
Rochester
Staffordshire
ST14 SJP

To operate an installation at:
Power Station Road
Rugeley
Staffordshire
WS15 2WA

Company No. **0564955**

to the extent authorised by and subject to the conditions of this Permit.

Signed



Head of Environmental Health
The Proper Officer Designated to sign on behalf of the Council.
Cannock Chase District Council

Dated

25th November 2013

PERMIT CONDITIONS

1.0 The Permitted Installation

1.1 If the operator proposes to make a change in the operation of the installation, he must, at least 14 days before making the change, notify the regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition "change in operation" means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

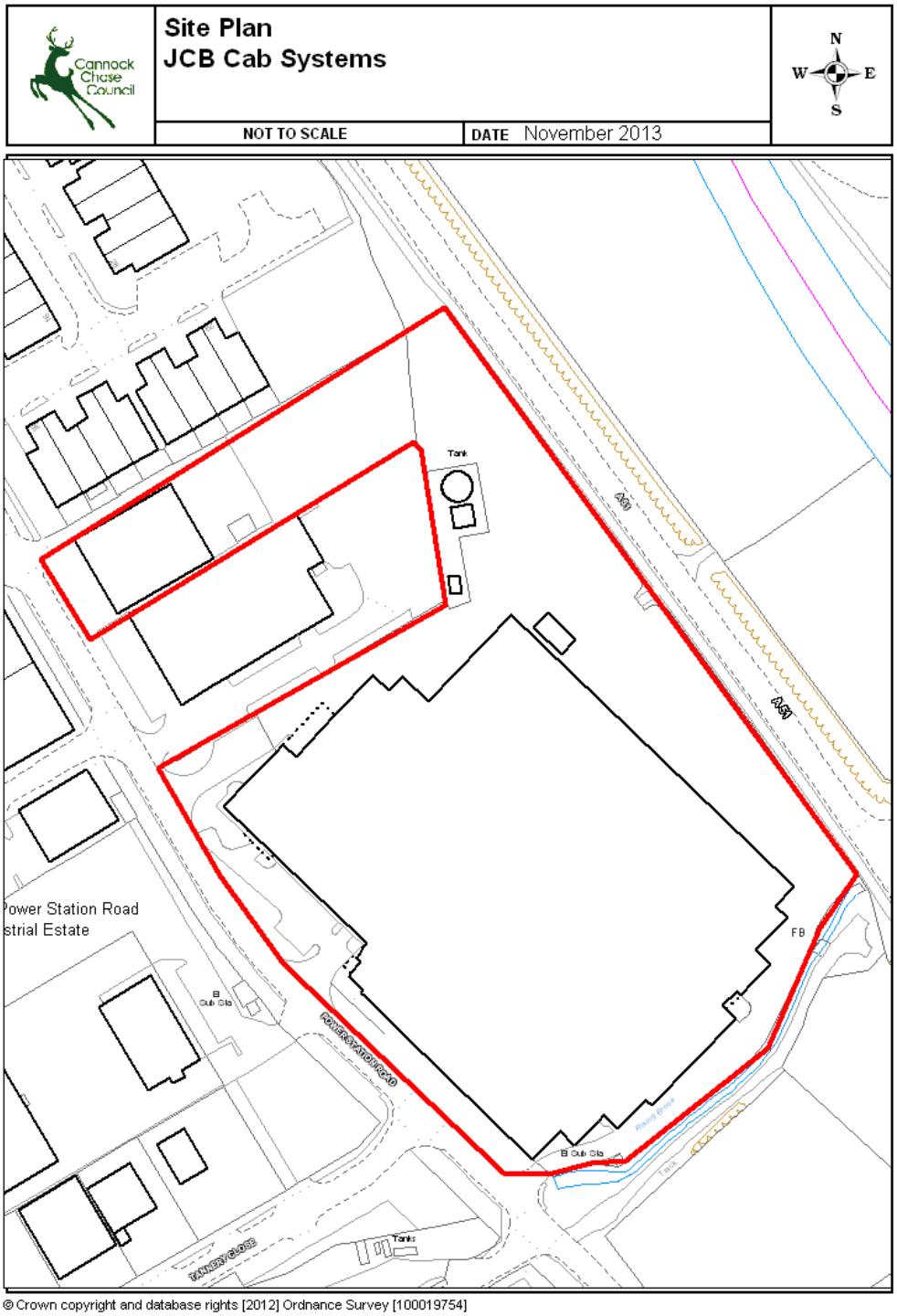
1.2 The best available techniques shall be used to prevent, or where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation which is not regulated by any other condition of this permit.

1.3 The Operator is authorised to carry out the activities and/or the associated activities specified in Table A.

Table A Activities and Directly associated activities

Activities under Schedule 1 of the Regulations/Associated Activity	Schedule 1 activity Reference (if Applicable)	Limits of specified activity	Operator
Surface Treatment of Metals	2.3 A2 (a)	Within the pre-treatment line	JCB Cab Systems
Coating Activities, Printing and Textile Treatments	6.4 B (a)	Within the powder coat booths	JCB Cab Systems
Welding Operations	Associated Activity	Main process building	JCB Cab Systems
Receipt, handling and storage prior to use of all raw materials	Associated Activity	As detail in Annex 1	JCB Cab Systems
Waste materials storage	Associated Activity	As detailed in Table A	JCB Cab Systems
Effluent Treatment Plant	Associated Activity	Treatment & discharge of process water and site drainage from the surface treatment processes.	JCB Cab Systems

1.4.1 The activities authorised under condition 1.3 shall not extend beyond the boundary of the site shown in red.



Operational Matters

2.0 Management techniques and control

2.1 All plant, equipment and technical means used in operating the permitted installation, within the site boundary, shall be maintained in good operating condition.

2.2 The permitted installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this permit. .

2.3 All staff shall be fully conversant with those aspects of the permit conditions that are relevant to their duties and shall be provided with appropriate training and written operating instructions to enable them to carry out their duties.

2.4 A copy of this permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the permit

2.5 Effective operational and maintenance systems shall be employed on all aspects of the installation whose failure could impact on the environment; such systems should be reviewed and updated annually.

2.6 Procedures shall be in place for analysing operational faults in order to prevent their recurrence.

2.7 Training systems covering the following items shall be in place for all relevant staff:

- Awareness of the regulatory implications of the permit.
- Awareness of any potential environmental impacts under normal and abnormal circumstances.
- Awareness of the procedures for dealing with a breach of the permit conditions.
- Prevention of accidental emissions and actions to be taken when accidental emissions occur.
- Awareness of all operating procedures.

2.8 The potential environmental risks posed by the work of contractors shall be assessed and instructions provided to contractors about protecting the environment while working on site.

3.0 Process Operations

3.1 Spray application of coatings shall be achieved by the use of electrostatic application systems.

3.2 Coating materials shall be transferred from their packaging to the point of application in such a way as to minimise their emission to the air.

3.3 Bulk storage diesel tanks shall be completely contained by bunding which is impervious and resistant to the material in storage and capable of holding 110% of the volume of the largest tank. Spillages from overfilling of fuel tanks shall be prevented by the operation of a suitable system of volume control management procedures which shall include residual and final volume checks and weekly usage records.

4.0 Raw Materials, including Water

4.1 The Operator shall, subject to the conditions of this Permit, only use raw materials as described in Annex 1 of this permit, or as otherwise agreed in writing by the Local Authority.

4.2 Raw materials shall be stored and handled in a manner that prevents or minimises emissions to air, land or water.

4.3 The operator shall adopt procedures to control the specification of those types of raw material with the main potential for environmental impact in order to minimise any potential releases. An annual review of alternative raw materials should be carried out with regard to environmental impact (a specified record)

4.4 The operator shall record materials usage and waste generation in order to establish internal benchmarks to maintain and improve resource efficiency.

4.5 The Operator shall carry out, at least once every four years, an audit for both waste minimisation and water efficiency. The results of the audit together with any action plan, and relevant timescales, for optimising the use of raw materials and water shall be submitted to Cannock Chase District Council within 2 months of the audits being competed. The audits shall be completed within 24 months of the issue date of the Permit.

4.6 Using information from the water efficiency audit, opportunities for reduction in water use Shall be assessed and, where appropriate, shall be carried out in accordance with a timescale approved by the regulator.

4.7 Information from audits should be used to establish benchmarks. Operators should keep records of such benchmarks and make measurement against them to reveal whether the process is being maintained "in control" or to track improvements

5.0 Groundwater Protection

5.1 The Permitted Installation shall, subject to the conditions of this permit, be controlled as described where

- The Operator shall ensure that all liquid storage areas are either bunded to a capacity of 110% of the largest container stored or 25% of the total volume of liquid stored, whichever is the greater, or where hard-standing is used that all drains are fitted with interceptors.
- All interceptors and sumps shall be impermeable and resistant to the stored material, and be regularly checked by visual inspection and the check recorded (A specified record). Where necessary the contents shall be removed after testing for contamination. The results of the tests shall be recorded (A specified record).
- All storage tanks shall be fitted with high level alarms or volume indicators. Where practicable the filling system shall be interlocked to the alarm system.
- All drainage within oil or chemical storage areas shall be fitted with interceptors and discharge to foul sewer only.

5.2 Storage areas and containers shall be designed and operated to minimise the risk of fugitive release to surface water, sewer or groundwater.

5.3 There shall be no emissions to groundwater of any substance in List 1 or List 2 substance so as to cause pollution (as defined in the Groundwater Regulations 1998)

6.0 Waste Handling and Storage

6.1 Waste materials specified in Table B below shall only be stored on site in the manner specified in that table.

Table B Waste stored on site		
Description of Waste	**Expected Amount**	**Manner of Storage**
Powder Paint	10,650kg	Recycling Area
Effluent filter cake	7,800kg	Recycling Area
Tankered waste effluent (annual tank cleaning)	24,000 litres	Tankered offsite
Waste water (effluent)	1.3 million litres	Discharge consent

6.2 The operator shall:

- record the quantity, nature origin and where relevant, the destination, frequency of collection, mode of transport and treatment method of any waste which is disposed of or recovered (A specified record)
- Ensure that waste storage areas are clearly marked and signed, and that containers are clearly labelled.
- Ensure that appropriate storage facilities are provided for substances that are flammable, sensitive to heat or light etc and that
- Ensure that containers are stored with lids, caps and valves secured and in place. (This also applies to emptied containers.)
- Ensure that procedures are in place to deal with damaged or leaking containers
- Segregate waste wherever practicable

6.3 The Operator shall maintain records of all waste transfer and consignment notes (A specified record).

6.4 Emissions of waste shall be reduced where practicable following a reporting scheme to support the EMS, to designate where waste minimisation can be achieved.

7.0 Energy Efficiency

7.1 The Permitted Installation shall, subject to the conditions of this permit:

- update its energy efficiency assessment annually, including all changes to new buildings and installation equipment.
- include methods of improving energy efficiency within the site boundary and the report shall be made available to the Regulator upon request

7.2 The Operator shall either adopt an energy management plan, which shall be updated annually, or be part of the national UK Climate Change Levy Agreement.

7.3 The operator shall monitor energy flows and target areas for reduction which should be updated annually ("Sankey" diagrams and energy balances would be useful aids)

7.4 The operator shall ensure that all plant is operated and maintained to optimise the use and minimise the loss of energy.

7.5 The operator shall ensure that all appropriate containment methods (eg seals and self closing doors are employed and maintained to minimise energy loss.

8.0 Accident Prevention and Control

8.1 The Operator shall have written procedures for investigating incidents and near misses, including identifying suitable corrective action and following up.

8.2 The Permitted Installation shall, subject to the conditions of this permit, be controlled where;

- As part of the Operators EMS a documented system (A safety and environmental management system or an Accident Management Plan) shall be implemented to identify, assess and minimise the environmental risks and hazards associated with environmental accidents.
- In the event of an environmental accident either to land, air or water a report shall be made and kept available to the regulator (A specified record).

8.3 The Operator shall make available the Safety/Environmental Management System or Accident Management Plan to the Regulator upon request. Any proposed changes to those areas mentioned in Condition 8.1 shall not be made unless agreed in writing by the Regulator.

8.4 All bunds including pallet bunds, where not covered or fitted with level devices within catchment sumps, shall be inspected monthly and emptied as determined by that inspection. A specified record shall be made of the check and any subsequent action.

9.0 Noise and Vibration

9.1 The operator shall identify key plant and equipment (or operations) with the potential to give rise to significant noise and take such measures as are necessary by way of mitigation and maintenance of existing plant and equipment in order to minimise noise

9.2 When complaints of noise attributable to the installation are received an investigation shall be carried out. Action shall be taken where necessary, and without undue delay, to identify and remedy any breakdown or malfunction of equipment likely to have led to the complaint being made. Details of the complaint and investigation shall be recorded (a specified record).

10.0 Odour

10.1 The Operator shall make available the Odour Management Plan (OMP) to the Regulator upon request. Any proposed changes to the installation; where there is a potential increase in odour from any new equipment shall not be made unless agreed in writing by the Regulator.

10.2 The Odour Management Plan (OMP) shall be reviewed and updated annually. The updated OMP shall be submitted to the Regulator annually before 1st December. Additional reviews shall be undertaken in response to justified complaints and the Regulator shall be notified in writing without delay of improvement actions undertaken.

11.0 Decommissioning

11.1 The Permitted Installation shall, subject to the conditions of this permit, be controlled where;

- Operations during the life of the IPPC Permit must not lead to any further environmental deterioration within the site boundary.
- The Environmental Management System programme shall ensure appropriate measures will be established to control significant environmental risks which could lead to a pollution episode.
- The Operator shall inform the regulator in writing of proposals for ensuring satisfactory de-commissioning of the following areas,

    - actions to be taken at Design and Build of replacement developments,
    - site closure arrangements for de-commissioning,
    - decontamination and
    - demolition

11.2 A site closure plan shall be maintained such that, upon definitive cessation of activities, the site can be decommissioned safely and that pollution risks from the site are minimised.

12.0 Multi-operator installations

12.1 This is not a multi-operator installation. Any transfer ownership/management of an activity within the installation must comply with requirements of Regulation 21 of the Environmental Permitting Regulations 2010.

13.0 Records

13.1 A record (a "Specified Record") shall be made of: -

A any malfunction, breakdown or failure of plant, equipment or techniques (including downtime and any short term and long term measures) that may have, has had, or might have had an effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;

B all monitoring and sampling taken or carried out and any assessment or evaluation made on the basis of such data;

C other Specified Records for the installation/sector;

13.2 There shall be made available for inspection by the Regulator at any reasonable time;

A Specified Records;

B any other records made by the Operator in relation to the operation of the Permitted Installation ("Other Records")

13.3 A copy of any Specified or Other Records shall be supplied to the Regulator on demand and without charge.

13.4 Specified Records and Other Records shall:-

A be legible;

B be made as soon as reasonably practicable; and

C indicate any amendments which have been made and shall include the original wherever possible.

13.5 Specified Records and Other Records shall be retained for a minimum period of 2 years from the date the record was made.

13.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 2 years)

A its composition, or as appropriate, description;

B the best estimate of the quality produced;

C its disposal routes (including consignment notes); and

D the best estimate of the quantity sent for recovery.

13.7 A record shall be made at the Permitted Installation of any complaints concerning the installation's effect on the environment. The record shall give the date of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

14.0 Reporting

14.1 All reports and notifications required by this Permit, or by Article 12(1) of the IPPC Directive shall be sent to the regulator at the address in the introductory note to this permit.

14.2 Reports relating to extractive monitoring shall be provided within 8 weeks of sampling.

14.3 Any information notice served for the purposes of complying with your obligation to report your pollutant release and off site waste transfers pursuant to the EU duty in accordance with Article 5 of the EC regulation No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register shall be responded to in full.

15.0 Notifications

15.1 The Operator shall notify the Regulator (or for emissions to water the Environment Agency Hotline number provided in the introductory note to this Permit) **without delay** of :-

a. the detection of an emission of any substance which exceeds any limit or criteria in this Permit specified in relation to the substance.

b. the detection of any fugitive emission which has caused or may cause pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution.

c. the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution; and

d. any accident which has caused or may have the potential to cause pollution.

15.2 The Operator shall give written notification as soon as practicable, of any of the following;

a. permanent cessation of the operation of any part or all of the Permitted Installation;

b. cessation of the operation of any part of or all of the Permitted Installation for a period, likely to exceed 1 year; and

c. resumption of the operation of any part of or all of the Permitted Installation after a cessation notified under 5.2 (b).

15.3 The Operator shall notify the following matter to the Regulator, in writing, within 14 days of their occurrence:

a. where the operator is a registered company:

i, any change in the Operator's trading name, registered name or registered office address;

ii, a change to any particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);

iii, any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

iv, If the operator proposes to make a change in operation of the permitted installation, the notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

15.4 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Regulator within one month of:-

a, A decision by the Secretary of State not to re-certify that Agreement.

b, A decision by either the operator or the Secretary of state to terminate that Agreement; and

c, Any subsequent decision by the secretary of State to re-certify such an agreement.

15.5 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the operator shall notify the Regulator within one month of any decision by the Operator to withdraw from or by the Secretary of State to terminate the Direct Participant Agreement.

15.6 Adverse results from any monitoring activity shall be investigated as soon as the monitoring data has been determined or received. The following items shall be undertaken:

a. The cause shall be identified and corrective action taken.

b. A detailed record of the extent of the problem and action taken to rectify the situation.

c. A re-test to demonstrate compliance shall be undertaken as soon as possible.

d. The regulator shall be informed.

16.0 Monitoring

16.1 The monitoring of emissions to air shall be undertaken in accordance to the monitoring protocol in Table C. Any proposed changes to the monitoring protocol shall not be made unless agreed in writing with the regulator.

16.2 The monitoring of emissions to sewer shall be undertaken as and when requested by the sewerage undertaker.

Table C Monitoring and reporting of emissions to air and water

Parameter	Emission point as on plan	Monitoring frequency	Monitoring method	Accreditation
Total Particulate Matter	Powder Cure Oven Vestibule Exhaust Fan (A1) Electro-Coat Cure Oven Exhaust Fan (A2) Powder Cure Oven Exhaust Fan (A3) Electro-Coat Oven Cooler Exhaust Fan (A4) Electro-Coat Oven Exhaust (A5) Rework Booth LHS (LEV) Fan (A11) Rework Booth RHS (LEV) Fan (A12)	Annual	BS EN 13284-1 and MID Or the method stated within M2	MCERTS
Volatile Organic Compounds (VOC's)	Powder Cure Oven Vestibule Exhaust Fan (A1) Electro-Coat Cure Oven Exhaust Fan (A2) Powder Cure Oven Exhaust Fan (A3) Electro-Coat Oven Cooler Exhaust Fan (A4) Electro-Coat Oven Exhaust (A5) Rework Booth LHS (LEV) Fan (A11) Rework Booth RHS (LEV) Fan (A12)	Annual	BS EN 13526 Or the method stated in M2	MCERTS

16.3 Sampling points, platforms and access shall where capable comply with all aspects of the guidance provided by the Environment Agency Technical Guidance Document (Monitoring) M1. Derivation from M1 shall be reported and approved by the Regulator prior to sampling. Monitoring methods shall be as detailed in Table C or as per Technical Guidance Note M2 Monitoring of stack emissions to air.

16.4 All pollutant concentrations shall be expressed at reference conditions, 273K 101.3KPa, without the correction for water vapour content.

The frequency of monitoring shall be as detailed in Table C, any derogation or reduction in frequency shall be by variation application which shall demonstrate adequate technical measures to monitor and control process operations, reductions of monitoring frequency shall not be accepted below annual requirements where abatement plant is required to meet emission limits.

16.5 The operator shall notify the regulator at least 7 days before any periodic monitoring exercise.

16.6 Where available, the operator shall use monitoring equipment and instruments certified to MCERTS and use a stack-testing organisation accredited to MCERTS standards or such alternative requirements as approved by the regulator.

16.7 The introduction of dilution air to achieve emission concentration limits shall not be permitted.

Emissions

17.0 Emissions to Air

17.1 All emissions to air, other than steam or water vapour shall be colourless and free from persistent mist.

17.2 All emissions to air shall be free from persistent fume and free from droplets.

17.3 There shall be no burning of any materials in the open air in connection with the permitted installation

17.4 The installation shall comply with the emission limits (air) in Table D below

Table D (Emission Limits (air))		
Determinant	Emission limits / requirements	Monitoring
Total Particulates	20mg/m³	Once a year extractive monitoring
VOC	50mg/m³	Once a year extractive monitoring
No Persistent Visible Emissions	Operator Observations	At least Daily

17.5 Visual assessments of emissions shall be undertaken as in Table D (Condition 17.1) above. Remedial action shall be taken immediately in the case of abnormal emissions and the Regulator shall be notified if persistent mal operation occurs. All adverse results of the assessments shall be recorded.

17.6 The heights and efflux velocities of the exhaust stacks serving the installation shall be as detailed in Table E below.

Emission Point	TABLE E Stack heights		
	Stack	Minimum efflux velocity	Height (metres from ground level))
A1	Powder Cure Oven Vestibule Exhaust Fan	15 m/s	10m
A2	Electro-Coat Cure Oven Exhaust Fan	15 m/s	10m
A3	Powder Cure Oven Exhaust Fan	15 m/s	10m
A4	Electro-Coat Oven Cooler Exhaust Fan	15 m/s	10m
A5	Electro-Coat Oven Exhaust	15 m/s	10m
A6	Stage 6+10 Burner Exhaust Fan	15 m/s	10m
A7	Stage 1,2,+3 Burner Exhaust Fan	15 m/s	10m
A8	Stage 3 Cleaner Immersion Tank LIP Extraction (LEV) Fan	15 m/s	10m
A9	Stage 2 Cleaner Immersion Tank Lip Extraction (LEV) Fan	15 m/s	10m
A10	12 Stage 1 Water Rinse Immersion Tank Lip Extraction (LEV)	15 m/s	10m
A11	Rework Booth LHS (LEV) Fan	15 m/s	10m
A12	Rework Booth RHS (LEV) Fan	15 m/s	10m
A13	Rework Booth Air Intake	15 m/s	10m
A14	Rework Booth Burner Air Intake	15 m/s	10m
A15	Paint Kitchen (LEV) Fan	15 m/s	10m
A16	Stage 10 Oxsilan Immersion Tank Lip Extraction.	15 m/s	10m
A17	Stage 6 Acid Immersion Tank Lip Extraction.	15 m/s	10m

17.7 The operators shall ensure that stacks are not fitted with any restriction at final opening such as a plate cap or cowl. Cones to increase exit velocity shall be permitted.

18.0 Techniques to Control Fugitive Emissions

18.1 Empty powder packaging and dusty wastes shall be stored in closed containers and handled In a manner that avoids emissions.

18.2 Cleaning of particulate matter arrestment plant, coating application plant, and extract ductwork which may contain finely divided materials, shall be carried out so as to minimise emissions into the air.

18.3 Cleaning of powder application booths (eg during colour changes) shall be carried out with the booth extract and arrestment kept running.

18.4 All spillages shall be cleared as soon as possible; solids by vacuum cleaning, wet methods or other appropriate techniques. Dry sweeping of dusty spillages shall not be permitted.

18.5 A high standard of housekeeping shall be maintained.

19.0 VOC Control Techniques

19.1 All potentially odorous waste materials shall be stored in suitable closed containers or bulk storage vessels.

19.2 Coatings containing VOC shall be stored in closed storage containers.

19.3 All measures shall be taken to minimise VOC emissions during mixing, i.e. the use of covered or closed mixing vessels.

19.4 Cleaning operations involving organic solvents shall be periodically reviewed, normally at least every two years, to identify opportunities for reducing VOC emissions. The regulator shall be provided with a report on the conclusions of the review.

19.5 Where practicable, fixed equipment shall be cleaned in situ, and such equipment shall where practicable, be kept enclosed whilst cleaning is carried out.

19.6 Residual coating materials contained in parts of the application equipment shall be removed prior to cleaning.

19.7 A programme to monitor and record the consumption of coatings/organic solvent against product used shall be used to minimise the amount of excess organic solvent/coating used.

19.8 All reasonably practicable efforts shall be paid to minimise the amount of residual organic solvent bearing material left in drums and other containers after use. All organic solvents contaminated waste shall be stored in closed containers.

20.0 Emissions to Land

20.1 There shall be no emission to land from the Permitted Installation

20.2 The Operator shall notify the Regulator, as soon as practicable, of any information concerning the state of the site which affects or updates that provided to the Regulator as part of the Site Report submitted with the application for this Permit.

21.0 Emissions to Water

21.1 There shall be no direct emissions to surface waters from the installation.

22.0 Emissions to Sewer

22.1 Discharges to the sewer system shall meet the requirements of the Trade Effluent Notice issued by Severn Trent Water PLC

23.0 Emissions of Heat

23.1 There are no direct conditions relating to emissions of heat. The Operator is reminded that heat efficiency will be reported within the Energy Efficiency Assessment and where cost/benefits determine potential savings the Operator shall address this under the EMS Environmental Improvement Plan.

24.0 Off site conditions

24.1 There shall be no offensive odorous emissions detected outside the site boundary as determined by the Regulator, (unless the operator has used appropriate measures, including, but not limited to, those specified in an approved odour management plan, to prevent or where that is not practicable to minimise the odour).

24.2 The operator shall conduct daily odour assessments to determine whether emissions result in offensive odours at or beyond the site boundary and a specified record made of observations giving note to wind direction and observation location. If operations are identified as resulting in offensive odour the Operator shall devise an odour control plan of improvements.

25.0 Interpretation

25.1 In this Permit, the following expressions shall have the following meanings:

"Annual average"
means the average of all daily averages in a calendar year.

"Background concentration"
means the same as "background quantity" as defined in paragraph 1 to Part 1 to Schedule 1 of the EP Regulations.

"Climate Change Agreement"
means an agreement entered into with the Government for the saving of energy at the installation.

"Commissioning"
relates to the period after construction has been completed when the Permitted Installation process is being made ready to operate.

"Contained conditions"
shall mean conditions under which an installation is operated such that the emissions released from the activity are collected and discharged in a controlled way either via a stack or abatement equipment and are therefore not entirely fugitive.

"Daily"
means a 24 hour period commencing at 00.00 hours.

"EP Regulations"
means the Environmental Permitting (England and Wales) Regulations (S.I.2010/675) and words and expressions defined in the EP Regulations shall have the same meanings when used in this Permit.

"Fugitive emission"
means an emission from any point other than those specified in the Table A&E in this Permit.

"Monitoring"
includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

"Permitted Installation"
means the activities and the limits to those activities described in Table A of this Permit.

"Regulator"
means any person authorised by Cannock Chase District Council under the Provisions of the Environmental Permitting Regulations 2010 and Section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, powers specified in Section 108(4) of that Act.

"Staff"
includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"Start up and shutdown operations"
shall mean operations whilst bringing an activity, an equipment item or a tank into or out of service or out of an idling state. Regularly oscillating activity phases are not considered as start-ups and shutdowns

"Substances prescribed for water"
means those substances mentioned in the IPPC Directive.

"Year"
means calendar year ending 31 December.

25.2 Where a minimum limit is set for any emission parameter, references to exceeding the limit shall mean that the parameter shall not be less than that limit.

25.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means in relation to emission limits, the concentration in wet gas at a temperature of 273K, at a pressure of 101.3kPa.

26.0 Written agreement to changes

26.1 Where the qualification "or otherwise agreed in writing" is used in a condition of this Permit, the Operator shall seek such agreement in the following manner:

a, the Operator shall give the Regulator written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and

b, such notice shall include an assessment of the possible effects of the proposed change (including waste production) on risks to the environment from the Permitted Installation.

26.2 Any change proposed according to condition 1.1 and agreed in writing by the Regulator, shall not be implemented until the Operator has given the Regulator prior written notice of the implementation date for the change, and any relevant documentation referred to in this Permit shall be deemed to be amended.

End of Conditions

5.2 RAW MATERIALS AND WATER USE

The following represents the principal ingredients used as part of the surface treatment & coating processes.

Material	Nature	Estimated Annual Quantity	Environmental Fate
Towns mains	Water	12,076 m^3	Acts as a carrier for water-based treatment technologies and forms the majority component of effluent discharge.
GC2573 Biocide	Organic halogenated biocide (100%)	40 kg	Redox reaction forms chloride and bromide ions which are discharged in effluent waters.
Gardacid P4404	Citric Acid (25-50%)	4,000 litres	Drag out into effluent water, forming weak citrate ions.
Oxsilan 9810/1	Methanol (1.5-2%)	300 litres	Contained within process tank, with possible minimal evaporative loss.
Oxsilan Additive 9905	Hexafluorozirconic acid (3-5%) Manganese nitrate (2.5-10%)	150 litres	Drag out into effluent water, forming low level zirconium, fluoride, manganese and nitrate ions.
CA107E-Q4 Cationic Additive	Phenoxypropan-2-ol (25-35%)	820 kg	Contained within process tank, with possible minimal evaporative loss. Resin is incorporated into the surface deposit of the cab structure.
CA120E-Q9 Cationic Additive	Acetic acid (<10%)	1,184 kg	
CP504J-H8 Cationic Paste	2-butoxyethanol (10-20%) Dibutyltin oxide (1-2.5%)	11,000 kg	
CR691J-C4 Powercron Resin	bis (2-(2-butoxyethoxy) ethoxy methane (1-2.5%)	43,000 kg	
KH412558SB Sulfamic acid	Sulphamidic acid (100%)	240 kg	Drag out into effluent water, forming weak sulphamate ions.
Terolan 3046	Sealant (non-hazardous)	11,00 kg	Incorporated into the cab structure.
Various Paints and Hardeners	Includes xylene, isocyanate, C9 aromatic hydrocarbon and methoxy-2- propanol depending on the paint used	1,250 kg (24% VOC)	Evaporative loss to atmosphere.

Material	Nature	Estimated Annual Quantity	Environmental Fate
Various Powder Paints	Non-hazardous (composition not declared by supplier)	38,560 kg	Incorporated into the cab structure, with some overspray on the manual booth.
Ferric Sulphate	Iron $^{(3+)}$ sulphate (aqueous solution)	2,000 litres	Additive in effluent treatment, to facilitate flocculation of solids.
Sodium Hydroxide	Sodium hydroxide (aqueous solution)	2,000 litres	Surface cleaner and effluent additive to regulate pH of discharged effluent.
Sulphuric acid	Sulphuric acid (aqueous solution)	2,000 litres	Additive in effluent treatment to regulate pH of discharge.