CANNOCK CHASE DISTRICT COUNCIL

THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2010

Permit to operate an installation Prescribed by Section, 4.1 Part B, of Schedule 1 of the Environmental Permitting (England & Wales) Regulations 2010

PERMIT REFERENCE: 4.1B (a) EPR 03/14/P1

Linecross Limited
T/A Linecross Composites Limited
Green Lane
Bridgtown
Cannock
Staffordshire
WS11 3JW

Regulator Contact Details

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

Tel: 01543 462621
Fax: 01543 462317

E-mail: environmentalhealth@cannockchasedc.gov.uk

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 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.

Brief description of the installation regulated by this permit

Linecross Composites Limited, Green Lane, Bridgtown, Cannock, Staffordshire, WS11 3JW is hereby permitted, in accordance with the requirements of the Environmental Permitting (England & Wales) Regulations 2010, to operate a di-isocyanate process as prescribed by Section 4.1B(a) of Schedule 1 (as amended) to the above Regulations, subject to the conditions outlined in this document, within the boundary of the installation as marked in red on the attached plan as page 14 of this Permit.

This Permit shall be subject to replacement, variation or amendment, as may be considered appropriate, by Cannock Chase District Council, at any time, according to the provisions of Regulation 17(1).

Contacting the Regulator

This Permit has been issued by Cannock Chase District Council as the Regulator for this installation and the address above (Page 2) is the Principle contact address for all matters relating to the Permit.

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

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 Notes

Permit Number: 4.1B(a) EPR 03/14/P1

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

Linecross Limited ("the operator"),
T/A Linecross Composites Limited

Whose registered offices are:

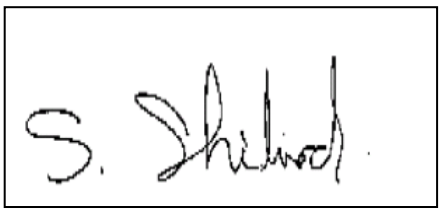
Station Road
South Luffenham
Rutland
LE15 8NG

To operate an installation at:

Green Lane
Bridgtown
Cannock
Staffordshire
WS11 3JW

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

15th February 2016

Installation Description

Polyurethane components in rigid and semi-rigid forms for automotive and construction industries and for engineering and electronics components are produced by the liquid phase interaction between di-phenylmethane – di-isocyanate (MDI) and polyol. The quality and type of foam produced is dependent upon the grade of MDI, the polyol blend and ratio of components used.

Rigid polyurethane components are produced by a single shot injection of pre-mixed polyol and MDI hardener using a heated mechanical mixing head into dedicated steel or aluminium tool sets on book presses or freestanding mould tools maintained at even temperature to ensure even curing of the resin. De-moulding for the main SRIM process is aided by pre-coating the moulds with a water based release agent which is on a ring main. De-moulding for the soft foam process uses a solvent based release agent due to the in mould paint process.

Mouldings are manually de-flashed and the mixing head cleaned by manual wiping or by a piston that pushes out residues. In the case of semi-rigid polyurethane components, the process is the same except for the use of dichloromethane for flushing of the mixing head.

PERMIT CONDITIONS

Emission Limits, Monitoring and Other Provisions

1.0 Monitoring, investigations and recording

1.1 Monitoring of emissions from the stacks, as identified on the stacks layout plan (given as page 15), shall be carried out according to the method specified in Table 1 below or by an equivalent method agreed by the local authority. The reference conditions for limits in Table 1 are 273K, 101.3kPa without correction for water vapour content.

Table 1: Emission limits, monitoring and other provisions

Substance	Source Stack No.	Emission limits/ provisions	Type of Monitoring	Monitoring Frequency
Di-isocyanate as total NCO group	1,2,3,4,5,6,7,10,11,12,13 14,15	0.1 mg/m³ averaged over any 2 hour period whilst plant is in operation	Quantitative	Measured biennially during normal production using for example MDHS 25/3
VOC (expressed as carbon excluding particulate matter)	1,2,3,4,5,6,7,10,11,12,13 14,15	100 mg/m³ as 30 minute mean	Quantitative	Measured biennially during normal operation
Methylene Chloride	10,11,12,13,14	20mg/m³ as total mass of Methylene Chloride	Quantitative	Measured biennially during normal operation

1.2 The operator shall keep records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments. The records shall be:

- kept on site
- kept by the operator for at least two years; and
- made available for the regulator to examine

2.0 Information required by the local authority

2.1 The local authority shall be informed of monitoring to be carried out and the results; the results shall include process conditions at the time of monitoring.

2.2 The operator shall provide a list of key arrestment plant and shall have a written procedure for dealing with its failure, in order to minimise any adverse effects.

2.3 The operator shall notify the local authority 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.

2.4 The results of non-continuous emission testing shall be forwarded to the local authority within 8 weeks of the completion of the sampling.

2.5 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/received. The operator shall

- identify the cause and take corrective action
- record as much detail as possible regarding the cause and extent of the problem and the action taken by the operator to rectify the situation
- re-test to demonstrate compliance as soon as possible; and
- notify the local authority

3.0 Visible and odorous emissions

3.1 All releases to air, other than condensed water vapour, shall be free from persistent visible emissions.

3.2 All emissions to air shall be free from droplets.

3.3 There shall be no offensive odour beyond the process boundary, as perceived by an authorised officer from the local authority.

3.4 Visual and olfactory assessments of emissions shall be made frequently and at least once each day whilst the process is in operation. The time, location and result of these assessments shall be recorded.

3.5 There shall be no open burning of any materials in the open air in connection with the process.

4.0 Abnormal events

4.1 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator shall

- investigate and undertake remedial action **immediately**
- adjust the process or activity to minimise those emissions; and
- promptly record the events and actions taken

4.2 The local authority shall be informed without delay:

- if there is an emission that is likely to have an effect on the local community; or
- in the event of the failure of key arrestment plant, for example, bag filtration plant or scrubber units.

5.0 **Calibration and compliance monitoring**

5.1 Di-isocyanate, VOC and methylene chloride monitoring shall be carried out by extractive testing annually.

5.2 For extractive testing, no results of monitoring shall exceed the emission concentration limits specified.

5.4 For batch processes, where the production operation is complete within 2 hours, then the extractive sampling shall take place over a complete cycle of the activity.

5.5 The sampling period shall be sufficient such that at least three results are obtained.

5.6 Should the batch cycle not be compatible with the time available for sampling, then the data should be obtained over a minimum period of 2 hours in total.

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

Control Techniques

6.0 Techniques to control emissions from contained sources

6.1 Emissions from activities likely to give rise to airborne particulate matter, for example the cutting and finishing of products, shall be collected and extracted, where necessary, to suitable arrestment equipment.

6.2 All spraying shall be carried out in a totally enclosed area and the spraying area should be under negative pressure throughout spraying and curing, in order to prevent fugitive emissions of odour and particulate matter.

Techniques to control fugitive emissions

7.0 **Materials, handling and storage**

7.1 The receipt, handling and storage of isocyanates and other potentially odorous or harmful substances shall be carried out in such a way that emissions are prevented, or where not practicable due to process characteristics, minimised and rendered harmless.

7.2 Di-isocynates shall be stored in fixed tanks or returnable containers. Contaminated air displaced from the headspace of tanks during filling shall be back-vented to the delivery tanker.

7.3 Any vents serving mixing vessels shall be fitted with a silica gel or other suitable air dryer to prevent ingress of water vapour. The air intake shall be separate to the exhaust vent to avoid isocyanate reacting with water on the silica gel to form insoluble poyureas.

7.4 Chemical storage tanks shall be completely contained by bunding which is sealed and resistant to the chemicals in storage and capable of holding 110% of the capacity of the largest storage tank.

7.5 To prevent overfilling, all storage tanks shall be fitted with suitable audible and visual alarms which will operate when any tank is in danger of becoming overfull and an interlock to the tank filling system shall be provided.

8.0 **Dust and spillage control**

8.1 Where spillages of liquid occur, they shall be immediately cleaned up and contaminated material shall be held in a closed, labelled container. Sufficient supplies of decontaminant and a suitable absorbent material shall be kept at all times. A written procedure for dealing with spillages shall be agreed with the regulator.

8.2 Dusty wastes, such as those from finishing operations and bag filters, shall be stored in closed labelled containers and handled in a manner that avoids emissions.

8.3 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.

8.4 A high standard of housekeeping shall be maintained.

8.5 Where proprietary booths are provided, all spray-up operations shall be carried on in the booth so as to prevent fugitive emissions of odour and particulate matter. Booths shall be fitted with a means of preventing spraying operations from continuing in the event of positive pressure within the booth.

9.0 Cleaning techniques

9.1 Operators shall make arrangements for the despatch for recycling for reuse all dirty solvents which have been used (for example, for equipment cleaning) and all other liquid wastes which contain volatile organic compounds.

9.2 Cleaning operations shall be reviewed to identify any cleaning steps which can be eliminated.

9.3 Alternative cleaning techniques shall be used where practicable. Examples include using water (with or without mechanical, chemical or thermal enhancements) or organic solvents which are significantly less volatile.

9.4 Where manual cleaning is unavoidable:

(i) cleaning solvents shall be kept in enclosed containers whilst not in active use.

(ii) wiping cloths or brushes shall be impregnated with cleaning solvent in a controlled manner, using a dispenser or similar device.

(iii) used wiping cloths or brushes shall be stored in enclosed containers pending recovery or disposal.

10.0 Stacks, vents and process exhausts

10.1 Flues and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.

10.2 Exhaust gases discharged through a stack or vent shall achieve an exit velocity which is normally greater than 15 m/sec during normal operating conditions to achieve adequate dispersion.

10.3 Stacks or vents shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be necessary to increase the exit velocity of the emissions.

10.4 Vents, stacks and ductwork shall be leakproof.

11.0 Management techniques

11.1 Spares and consumables – in particular, those subject to continual wear – shall be held on site, or should be available at short notice from guaranteed local suppliers, so that plant breakdowns can be rectified rapidly.

12.0 Training

12.1 Training of all staff with responsibility for operating the process shall include:

- awareness of their responsibilities under the permit
- minimising emissions on start-up and shut-down
- action to minimise emissions during abnormal conditions

12.2 The operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to the local authority on request.

13.0 Maintenance

13.1 Effective preventative maintenance shall be employed on all aspects of the process including all plant, buildings and the equipment concerned with the control of emissions to air. In particular:

- A written maintenance programme shall be provided to the regulator with respect to pollution control equipment; and

- A record of such maintenance shall be made available for inspection.

END OF CONDITIONS

Installation Boundary
Linecross Composites

NOT TO SCALE | DATE February 2016

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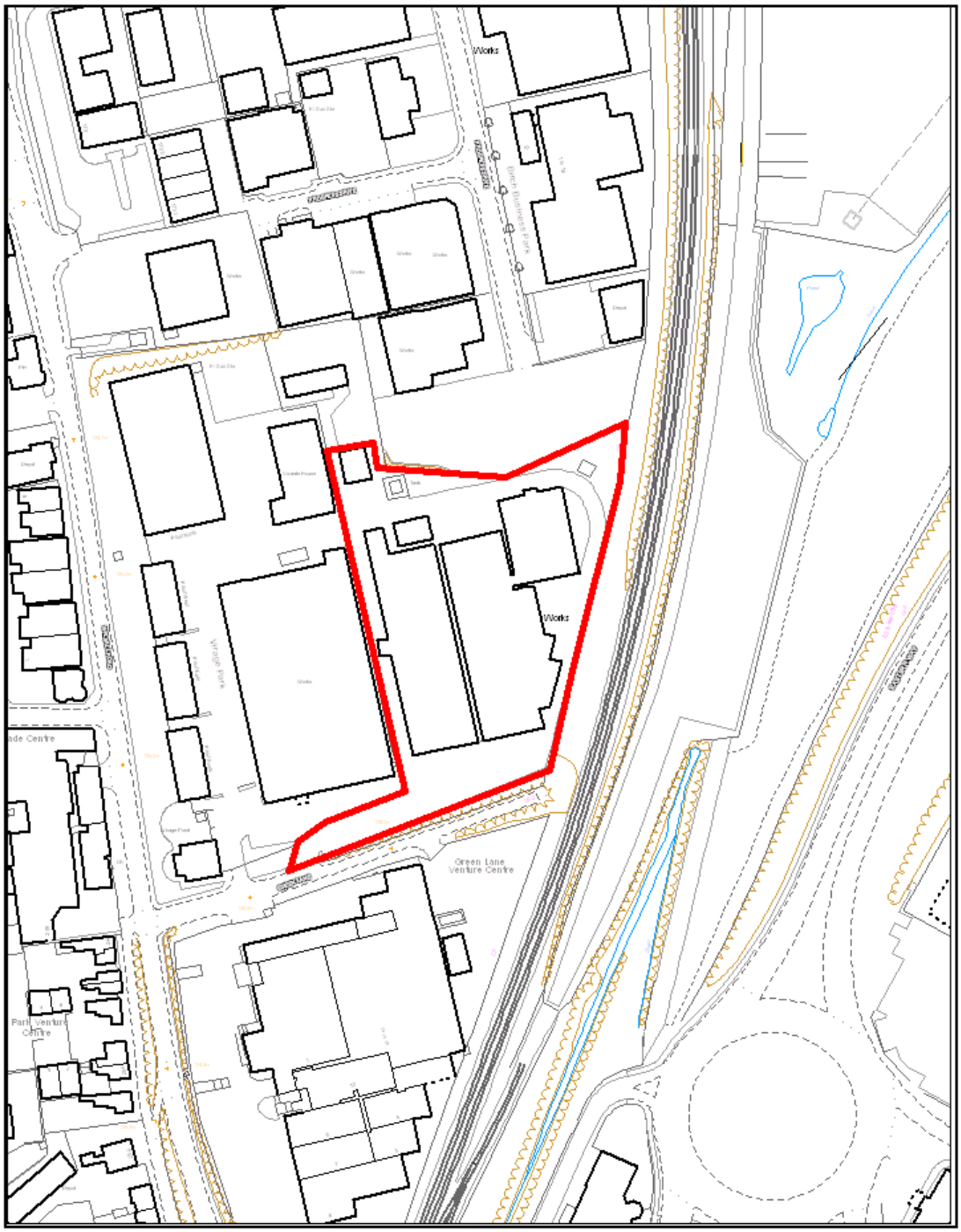
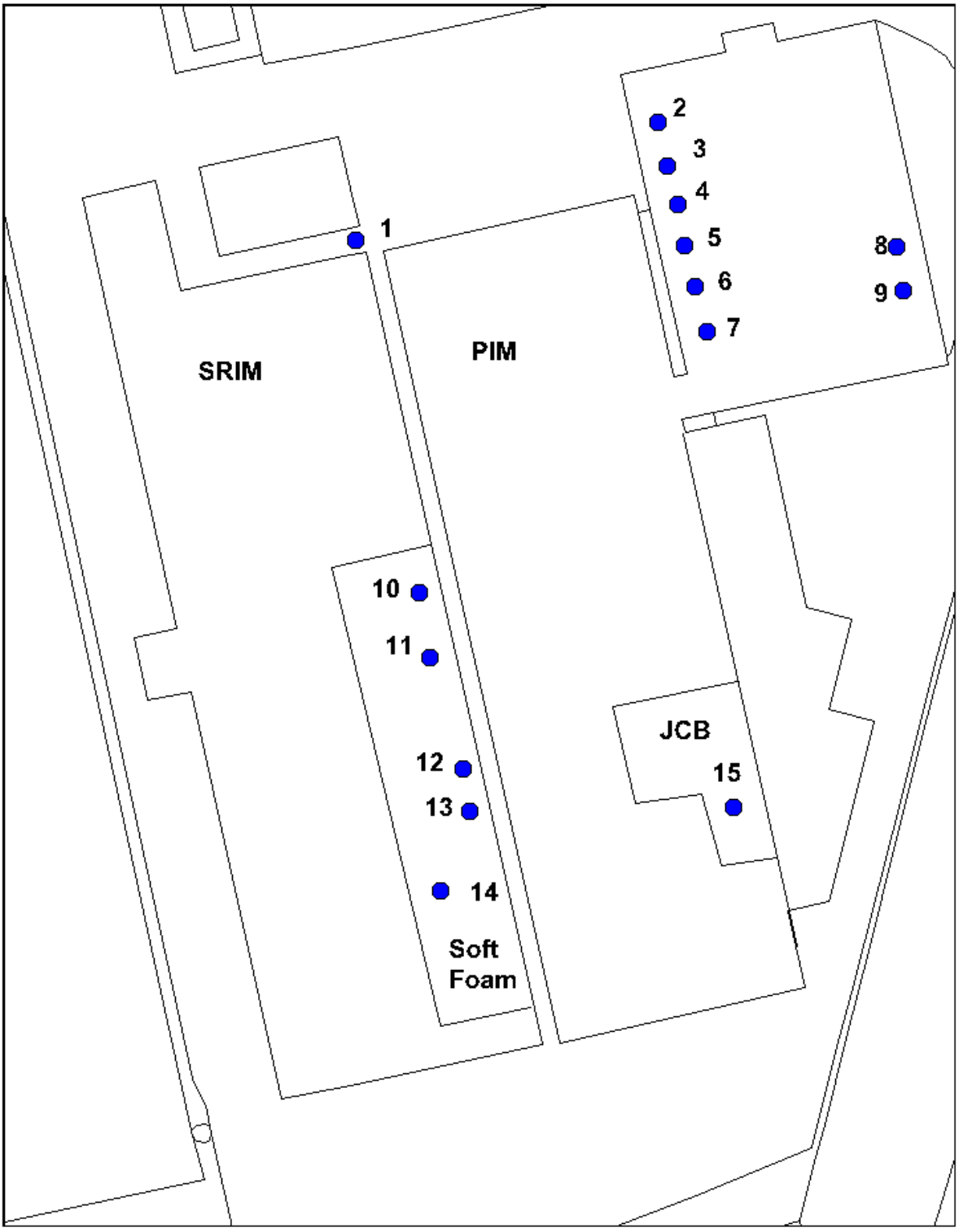


Stack Location Site Plan
Linecross Composites

NOT TO SCALE | DATE February 2016



Annex: Stack References

Process	Stack Reference
Main Production Area	1
JLR Line Stack 1	2
JLR Line Stack 2	3
JLR Line Stack 3	4
JLR Line Stack 4	5
JLR Line Stack 5	6
JLR Line Stack 6	7
Water Jets	8
Water Jets	9
Soft Foam Stack 10	10
Soft Foam Stack 11	11
Soft Foam Stack 12	12
Soft Foam Stack 13	13
Soft Foam Stack 14	14
JCB Stack	15