CALDERDALE METROPOLITAN BOROUGH COUNCIL

POLLUTION PREVENTION AND CONTROL ACT 1999

ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (as amended)

ENVIRONMENTAL PERMIT EPR/255

Contents

CALDERDALE METROPOLITAN BOROUGH COUNCIL

POLLUTION PREVENTION AND CONTROL ACT 1999

ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (as amended)

Application duly made:	17th June 2020
Permit Reference No:	EPR/255
Registered address of operator:	A-Safe HQ Ltd Habergham Works, Ainleys Industrial Estate, Elland HX5 9JP
Address of Installation:	A-Safe HQ Ltd Habergham Works, Ainleys Industrial Estate, Elland HX5 9JP

The above named operator is hereby permitted to operate a Part B di-isocyanate process at the address shown, within the boundary marked in red on the attached plan, reference EPR/255/P1.

DESCRIPTION OF INSTALLATION

The permitted activity carried out at the installation consists of the production of polyurethane products via a low pressure pouring process. Di-isocyanates are delivered into an external bulk tank and pumped into the process area where they are mixed with polyols and poured into moulds in a largely automated process. No blowing agents are used in the process. The process area is served by extraction to an external stack S1 and S2.

The activity falls under Schedule 1 Part 2 Chapter 4 Section 4.1 part B(a) of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) ('the Regulations').

In this permit terms used have the meaning assigned in the Regulations, and
'*the Council*' means the Borough Council of Calderdale.
'*the application*' means the application by the operator for an environmental permit duly made on 17th June 2020, and the supporting documents.

Start of permit conditions

Section 1 Emission Limits and Controls

1.1 The concentrations of pollutants set out in Table 1.1, determined during non-continuous monitoring of emissions to air shall not be exceeded:

Table 1.1: emission limits		
Substance	**Source**	**Emission limit/ provisions**
Di-isocyanate as total NCO group	Abated emissions	0.1mg/Nm^3 averaged over any 2-hour period whilst plant is in operation
VOC (expressed as total carbon excluding particulate matter)	Abated emissions	100mg/Nm^3 as 30 minute mean (see Note 1)
Particulate matter	Abated emissions	50 mg/Nm^3

Note 1 (from PG6/29(12))– some activities may just emit HFCs or pentane (which are used as blowing agents) and no other VOCs. In these cases neither the emission limit nor the monitoring provisions in Row 2 should be applied. If any other VOCs are emitted, such as methylene chloride, the provisions in Row 2 are applicable, unless the amounts of these other VOCs are so small that they are unlikely to have more than a trivial environmental impact.

1.2 All pollutant concentrations shall be expressed at reference conditions of 273K, 101.3kPa and 11% oxygen (or 9% carbon dioxide).

1.3 The emission limit values referred to in Table 1.1 shall be regarded as having been complied with if the results of each of the measurements made during extractive monitoring do not exceed the relevant emission limit.

Section 2 Monitoring Sampling and Measurement of Emissions

2.1 The operator shall ensure that adequate safely accessible emissions monitoring points are installed and maintained in the stack S1 and S2. The monitoring points shall allow extractive monitoring to be undertaken to the standards set out in Table 2.1. The operator shall have regard to the guidance M1 Sampling Requirements for Stack Emission Monitoring when designing the monitoring arrangements. **https://www.gov.uk/government/publications/m1-sampling-requirements-for-stack-emission-monitoring**

2.2 The emissions from the exhaust stack S1 and S2 shall be extractively monitored every year for the substances in rows 1 and 2 of Table 2.1 using the methods set out in that table, or other recognised methods agreed in writing with the Council. The first extractive monitoring shall take place within 6 months of the issue of this permit.

2.3 Emissions testing shall be carried out in such a way that samples representative of typical operating conditions are obtained, excluding start-up.

Table 2.1 Emissions monitoring				
	Substance/ Parameter	**Emission Limit Value (mg/Nm^3)**	**Standard (see note)**	**Minimum monitoring frequency**
1	Di-isocyanate as total NCO group	0.1mg/Nm^3 averaged over any 2-hour period whilst plant is in operation	US EPA conditional test method (CTM) 36 for sampling and CTM 36 A for analysis.	Annual Extractive
2	VOC (expressed as total carbon excluding particulate matter)	100mg/Nm^3 as 30 minute mean (see Note 1)	EN 12619	Annual Extractive
3	Particulate matter	50mgm^{-3}	Indicative	Continuous during normal operation
	Note: Standards current at time of issue. See notes			

2.4 The operator shall forward a report of the emissions testing required by Condition 2.2 within 8 weeks of the testing taking place. The report shall state the results of the testing, whether the emission limits have been complied with, and details of calibrations and quality control procedures used by the contractor for the tests carried out.

Section 3 Process Controls

3.1 The receipt, handling and storage of di-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.

3.2 Contaminated air displaced from the headspace of the external di-isocyanate storage tank during filling shall be back-vented to the delivery tanker, or a carbon adsorption cartridge or other means of arrestment.

3.3 Portable, non-pressurised containers used to store di-isocyanates shall be stored according to the manufacturers' recommended storage temperatures and allowed to acclimatise to working temperatures before use. These containers shall not be pressurised, for example, to effect delivery of material from them unless they are specifically designed for this. All such containers, whether full, partially empty, or empty, shall be kept securely lidded.

3.4 All vents serving containers, bulk storage tanks or mixing vessels shall be fitted with a silica gel or other suitable air dryer to prevent ingress of water vapour. The air intake should be separate to the exhaust vent to avoid isocyanate reacting with water on the silica gel to form insoluble polyureas.

3.5 Bulk chemical storage tanks and containers 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 within the bund or 25% of the total capacity of all the tanks within the bund, whichever is the greatest.

3.6 To prevent overfilling, all bulk storage tanks and containers shall be fitted with suitable audible and visual alarms which will operate when any tank is in danger of becoming overfull. Where practicable (for example, where raw material delivery pumps are not mounted on delivery vehicles) an interlock to the tank filling system should be provided. Alternative tank filling procedures may be followed, subject to the agreement of the local enforcing authority.

3.7 The stack S1 and S2 and ductwork serving the common extraction system shall be fitted with adequate insulation to minimise the cooling of waste gases and prevent liquid condensation by keeping the temperature of the exhaust gases above the dewpoint.

3.8 The stack S1 and S2 and ductwork serving the common extraction system shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme referred to in Condition 4.1.

3.9 The vertical discharge speed of the exhaust gases from the stack S1 and S2 serving the common extraction system shall be at least 15m/sec under normal operating conditions.

3.10 The stack S1 and S2 serving the common extraction system shall not be fitted with any obstruction such as a cap or cowl or other restriction.

Note: A cone may be fitted to increase the exit velocity to achieve greater dispersion if required.

3.11 The continuous indicative particulate monitor fitted in stack S1 and S2 shall be operated so that:

- continuous monitoring readings are on display to appropriately trained operating staff.
- Audible and visual alarms shall be fitted, situated appropriately to warn the operator of arrestment plant failure or malfunction.
- The activation of alarms shall be automatically recorded.
- All continuous monitors shall be operated, maintained and referenced in accordance with the manufacturers' instructions, which shall be made available for inspection by the Council. The relevant maintenance and referencing shall be recorded.
- A manual or automatic procedure shall be in place to detect instrument malfunction and to monitor instrument availability so that the monitor provides reliable data at least 95% of the operating time (i.e. availability >95%).

3.12 The condition and capacity of the carbon filter panels shall be monitored using the Carbon Life Prediction Service described in documentation provided by the operator. Changes to this arrangement shall be notified in advance and subject to written agreement with the Council.

Section 4 Management and Training

4.1 The operator shall maintain a written Environmental Management System (EMS) that addresses the following areas.
(a) Cleaning and maintenance
(b) Training and plant operation
(c) Emission monitoring
(d) Plant failures
(e) Record keeping.
Note: The Management System described in the document EM01 of the application is such a system.

4.3 Essential spares and consumables, particularly those subject to continual wear, shall be kept on site or be available at short notice from guaranteed suppliers to rectify breakdowns.

4.4 All staff with responsibilities relating to the operation of the installation and control of emissions to air shall receive sufficient training to allow them to

- understand the requirements of this permit;
- minimise emissions during startup and shutdown;
- recognise the signs of abnormal emissions, such as alarms;
- take action to minimise emissions during abnormal conditions; and
- notify the Council in the event of abnormal emissions.

All training shall be recorded and made available on request to any authorised officer of the Council.

4.5 The operator shall keep records of:
a) All inspections of the installation both by external bodies and internal employees,
b) maintenance including cleaning, maintenance undertaken by external contractors or internal personnel and breakdowns,
c) Operating procedures with associated training records,
d) Emission testing, periodic and operator assessments as well as details of any testing platforms.
The operator shall make available these records available to any authorised officer of the Council upon request.

4.6 The operator shall draw up a written statement of training requirements for all staff with responsibilities relating to the control of emissions to air. This may form part of the EMS required by Condition 4.1.

4.7 The operator shall use the maintenance programme to schedule maintenance of all equipment concerned with control of emissions to air, and all maintenance carried out shall be recorded. This may form part of the EMS required by Condition 4.1.

4.8 In the event of any non-compliance with any emission limit value, or malfunctions and breakdown of the plant that leads to abnormal operating conditions or complaints about odour and / or smoke the operator shall take the measures necessary to ensure that compliance is restored within the shortest possible time. This action should include but is not limited to:
a) Notify the Council within 24 hours of receiving the information to agree the investigation of the issue.
b) Undertake the agreed investigation.
c) Adjust the process or activity to minimise those emissions.
d) If applicable re-test to demonstrate compliance as soon as possible.
e) Promptly record the events and actions taken.
f) Submit to the Council any reports and updates as agreed.

4.9 Any emission likely to have an effect on the local community shall be notified to Calderdale Council immediately it is discovered.

4.10 The operator shall inform the Council, without undue delay, of any proposed changes to the plant which could affect the applicable emission limit values. This notification should be sufficiently in advance of those changes coming into effect for the Council to make the necessary assessments with a view to varying the permit as appropriate.

End of permit conditions

Signed ..... Date 12/10/2021

Andrew Pitts
An authorised officer of the Council

EXPLANATORY NOTES

1. This Permit is based upon the information provided in the application for a permit duly made on 17th June 2020. All plant, equipment and processes referred to in this Permit shall be taken to be those described in that application and kept on the public register.

2. The guidance set out in the final draft version of Process Guidance Note PG6/29(12) has been taken into account when drafting this permit.

3. This Permit is given in relation to the requirements of Environmental Permitting (England and Wales) Regulations 2016. It must not be taken to replace any responsibilities the operator may have under workplace Health and Safety Regulations.

4. This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, building regulation approval, hazardous substances consent, discharge consents, waste disposal licence or any licence or consent from the Environment Agency.

5. Notes on emissions testing methods for di-isocyanates can be found at https://www.gov.uk/government/publications/monitoring-stack-emissions-techniques-and-standards-for-periodic-monitoring/monitoring-stack-emissions-techniques-and-standards-for-periodic-monitoring#isocyanates (August 2020).

6. The additional documents referred to in determining this application are public register documents and are available on request:

7. The annual subsistence fee is due on 1 April each year. Failure to pay the fee will lead to revocation of the Permit.

8. If it is proposed to transfer operation of the installation to another operator, the current operator and the proposed new operator must apply jointly to the Council to transfer the permit. There is a fee to transfer this permit.

9. If the operator proposes to cease operating the installation a written application must be made to the Council to surrender the permit. There is no fee for surrendering this permit.

10. Application forms for transferring, varying and surrendering environmental permits can be found at www.calderdale.gov.uk

Contacting Calderdale Council

All enquiries and notifications made in relation to this Permit should be made to:

Calderdale Metropolitan Borough Council
Environmental Health
c/o Town Hall
Crossley Street
Halifax
HX1 1UJ

Tel: 01422 288001
Email: environmental.health@calderdale.gov.uk

Incidents occurring outside office hours shall be reported on the next working day unless otherwise directed within the Permit or there is an imminent risk to health which shall be reported immediately by telephoning 01422 288000 and asking for the Duty Officer.

Appendix 1: Minimum standard for monitoring reports

It is a condition of the permit as issued under the Environmental Permitting Regulations that non-continuous monitoring is undertaken and a report of the results submitted to the Council.

These reports will be subject to an audit to determine if all the requirements of the permit monitoring conditions, relevant standards and protocols have been met. Reports which are found not to contain sufficient information to check compliance with emission limits will be returned and the permit condition will be deemed to have not been complied with.

The Council accepts that different contractors have their own styles, but wishes to make clear the type of information that must be included in such reports, as detailed below. This guidance should avoid monitoring reports being rejected. Where a specified standard such as a British or international standard is used, and this specifies a reporting requirement, the report should conform to this standard.

Please note, reports that do not satisfy this guidance are likely to be returned. A specified time limit will be given to allow the contracted consultant to provide any additional information required.

Reports should include

Executive summary
- Summarising the results.
- Indicating compliance or non-compliance with the authorisations set emission limits.

Introduction
- Giving the plant description and the conditions under which testing was undertaken.

Method or Experimental
- Stating the methods used and giving sampling conditions.

Results
- Results tables here (details in Appendices if required).

Uncertainties
- Summarising uncertainties of measurement, e.g accuracy/precision of methods.
- Citing factors which may affect validity of results.

Conclusions
- Stating compliance or non-compliance for each pollutant.

The Appendices

These should include, where appropriate,
- Detailed results, diagrams, plant information etc.
- Supporting sampling information.
- Supporting analytical reports and calculations.
- Summary spreadsheets if required.
- Details of any correction factors employed.

Appendix 2: documents referenced in permit

Application form (including process description)
Carbon Life Prediction Service.pdf
Isocyanate Emission Calculations 20200609.pdf
EM01 Environmental Management System 20200414.pdf
EP-06 Environmental Monitoring and Evaluation of Compliance.pdf
HW PU Cell 1.pdf (drawing)
HW PU Cell 2.pdf (drawing)
HW PU CELL 3.pdf (drawing)