Telford & Wrekin COUNCIL

Pollution Prevention Control Act 1999

Environmental Permitting (England and Wales) Regulations 2016

| | |
|---|---|
| **Operator** | **Moveero Ltd – In Administration** |
| **Installation Address** | Squeezeform Plant<br>Hadley Castle Works<br>Hadley<br>Telford<br>TF1 6AA |
| **Permit Reference** | 134/080126 |
| **Grid Reference** | SJ678125 |
| **Registered Office** | Moveero Ltd – in Administration<br>C/O Interpath Ltd<br>2nd Floor 45<br>Church Street<br>Birmingham<br>B3 2RT |
| **Registered number** | 00751186 |

Moveero Ltd is hereby permitted by Telford & Wrekin Council to carry out the activity of melting aluminium and its alloys in conjunction with a die-casting activity at a rate of 20 or less tonnes per day, as defined under Schedule 1, Part 2, Section 2.2, Part B (d) of The Environmental Permitting (England and Wales) Regulations 2016 ("The Regulations") and other activities as listed and described below within the installation boundary marked in red on the attached plan in Appendix 1 and in accordance with the conditions within this permit.

**Signed:**

**Clair Travis** **Date: 27 March 2019**

**Environmental Health Officer**
**Authorised by the Borough of Telford and Wrekin to sign in that behalf**

| Provenance | Relevant Dates |
|---|---|
| Date Application Made (Deemed application) | 1 April 2004 |
| Date 'Duly Made' | 13 April 2004 |
| Date Permit First Issued | 20 May 2011 |
| Date of Variations | 16 January 2014 |
| | 27 March 2019 |
| Variation to include reduced operation conditions (mothballing permit) | 17 March 2025 |
| Transfer of permit from GKN Autostructures Ltd to Moveero Ltd | 8 January 2026 |
| Variation to change the permit reference number from 09/00030/PPCB/270319 to: 134/080126 | 8 January 2026 |
| Variation to remove reduced fee operation conditions | 18 February 2026 |
| Moveero Ltd entered administration 26/3/26. Name of operator and head office address changed to include administrators. | 1 May 2026 |

**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

GKN Autostructures Ltd carries out the activity of forming precision aluminium castings for the vehicle manufacturing industry. Aluminium material is melted in one of three melting furnaces (melt 1, 2 and 3 in appendix 2), for manual feed into one of four holding furnaces (hold 1,2,3, and 4 in appendix 2), then pouring into the associated press tools to be die cast. The casting is then ejected on to inspection conveyors.

The fume from melt 1 and 2 furnaces is extracted by LEV and up through the unabated stack. The hood to the LEV can be manually moved over to the appropriate furnace.

The molten metal in melt 1, 2, 3 and hold 2, 3 and 4 furnaces can be fluxed/degassing. This consists of adding flux to the surface of the molten aluminium then bubbling nitrogen gas through the melt to remove dissolved hydro fen. Fluxes used to contain Potassium Fluorosilicate and Potassium Chloride. The resulting dross is removed to an internal bin for sale and subsequent refining by a third party secondary smelter. Just before the start of casting, refining elements of tibal and strontium are added to the smelt.

Clean aluminium alloy is melted in the Squeezeform plant. Additionally, internally generated scrap up to a maximum of 20% is re-melted.

The installation has four die-casting areas known as:
- Wheel cell which is fed from furnaces melt 1 or 2 into holding furnace - hold 1.
- UBE cell which is fed from furnaces melt 1 or 2 into holding furnace- hold 2.
- Cell 7 which is fed from furnaces melt 1 or 2 into holding furnace - hold 3.
- Cell 8 which is fed from furnace melt 3 into holding furnace - hold 4.

Temperatures in furnaces melt 2 and 3 and hold 1, 3 and 4 are controlled by the use of immersed thermocouples connected to PID temperature controllers that can maintain temperature within a 10OC range. When furnaces are operational out of hours, furnace temperatures are periodically monitored by site security.
Metal temperature in furnaces Melt 1 and Hold 2 is monitored periodically using a dip thermocouple and display.

This activity no longer operates daily but on an order basis only.

Shotblasting is carried out in a Honemaster SH 150 CAB cabinet connected to a DCE bag filter. Filtered air is extracted internally and not to external atmosphere.

**Wheel Cell**
There is an induction furnace (Melt 1) with a capacity of 1 tonne and a 1 tonne capacity, gas-fired tilting crucible furnace (melt 2) in this area. They are used to melt aluminium ingot master alloys and clean, dry scrap foundry returns. Molten metal that has been prepared in one or both of the furnaces is transferred using a ladle connected to the crane to an enclosed dosing furnace (Hold 1), which is adjacent to the 1500- tonne press. The dies are heated to approximately 250$^{O}$C to reduce the temperature gradient during casting. The dies are sprayed with a water-based releasing fluid containing graphite. Emissions from the 1500-tonne press are filtered through a dust control equipment known as DCE bag filter unit. The filtered air is extracted internally and not to the external atmosphere.

Metal is then transferred to steel dies through a pre heated filter and a punch is lowered into the filled die. The metal is then allowed to solidify under pressure. The casting is then ejected from the die and a robot transfers the casting to an inspection conveyor.

The casting is then inspected by an operator who will fettle the casting manually to remove flash. Air from the manual fettling booths is filtered through a Lakestyle LW 22 wet scrubber. The filtered air is extracted internally and not to external atmosphere.

The casting is machined in a vertical computer numerical control (CNC) milling machine to remove the centre before being crated and sent to an external heat treatment company.

**UBE Cell**
A 0.25 tonne capacity electric crucible furnace (Hold 2) is used to hold molten pre-alloyed ingot. The dies are heated to approximately 250$^{O}$C. The dies are sprayed with a water-based releasing fluid containing graphite. Molten metal is then transferred to a shot tube by a robot and injected under high pressure into the closed die. The metal is then allowed to solidify under pressure. The casting is then manually removed and placed onto an inspection table. The casting is then inspected by an operator who will fettle the casting to remove flash. The casting is then crated for shipping to an external heat treatment company.

**Cell 7**
A 1 tonne capacity gas fired crucible furnace (Hold 3) is used to hold molten pre-alloyed ingot. The dies are heated to approximately 250$^{O}$C. The dies are sprayed with a water-based releasing fluid containing graphite. Molten metal is then transferred to the dies by a robot and a punch is lowered into the filled die. The metal is then allowed to solidify under pressure. The casting is then ejected from the die and removed using a robot and placed onto an inspection conveyor. The casting is then inspected by an operator who will fettle the casting to remove flash. The casting is then crated for shipping to an external heat treatment company. There is no extraction for the holding furnace.

**Cell 8**
A 1 tonne capacity gas-fired tilting crucible furnace (Melt 3) is used to melt pre-alloyed ingot and feed a 1 tonne capacity gas fired bale out furnace (Hold 4). The dies are heated to approximately 250$^{O}$C to reduce the temperature gradient during casting. The dies are sprayed with a water-based releasing fluid containing graphite. Molten metal is then transferred to the dies by a robot and a punch is lowered into the filled die. The metal is then allowed to solidify under pressure. The casting is then ejected from the die and removed using a robot and placed onto an inspection conveyor. The casting is then inspected by an operator who will fettle the casting to remove flash. The casting is then crated for shipping to an external heat treatment company. There is no extraction for the holding furnace.

**Waste storage**
All waste materials associated with the activities are stored in appropriate sealed drums/ containers/ skips. Solid waste from the installation is placed in dedicated covered containers that are stored within the waste storage area prior to collection by an approved waste carrier for recycling.

**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. 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: environmentalprotectionteam@telford.gov.uk

**Permitted activities, plant and equipment.**

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

| **Table 1** | | |
|---|---|---|
| **Activities listed in Environmental Permitting Regulations 2016** | **Description of specified activity** | **Limits of specified activity** |
| Schedule 1, Part 2, Schedule 2.2, Part B (d) | Melting zinc, aluminium or magnesium or an alloy of one or more of these metals in conjunction with a die-casting activity at a rate of 20 or less tonnes per day. | This includes melting, refining, holding, pouring and diecasting of aluminium ingot, clean aluminium scrap and any refining materials. |
| **Directly associated activities** | **Description of directly associated activities** | |
| Handling of raw materials | From receipt and storage of aluminium and clean aluminium scrap, including any refining materials. | |
| Fluxing, degassing, die lubrication | The storage, use and handling of fluxing, degassing and die lubrication materials | |
| Finishing operations | Fettling and/or shot blasting, including the handling and storage of shot. | |
| Handling of waste materials | Collection and storage of all associated activity wastes including dross/skimmings, collected dusty waste materials, foundry returns. | |

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

| **Table 2 – Permitted plant and equipment** | | | |
|---|---|---|---|
| **(a) Plant and equipment with external emissions** | | | |
| **Plant and equipment** | **Appendix 2 machine location reference** | **Abatement** | **External emission point** |
| 1 tonne induction furnace | Melt 1 – Wheel cell | LEV 157/53 system with gauze filters and filter bags | A1 |
| Gas fired melting furnace | Melt 2 – Wheel cell | LEV 157/53 system with gauze filters and filter bags | A1 |
| **(b) Plant and equipment with internal abatement – no emissions to atmosphere** | | | |
| **Plant and equipment** | **Appendix 2 machine location reference** | **Internal abatement plant** | |
| 1500T press/ Acheson dag 2000 die-spray system | Wheel cell | LEV 158 /54 - DCE bag filter unit 2 off UMA 750 K15 filter with D/L GLAZED 2139 9013B media | |
| Mobile extraction unit | Welding area | LEV 028 –mobile unit. internal capture fitted with electrostatic filter | |
| Grinding area | Wheel Cell | LEV 001 - Lakestyle filter Type LW 22. Wet dust extraction | |
| Shot blasting plant | Shot blast area | LEV 002 - Honermaster SH 150 CAB cabinet connected to a DCE bag filter unit | |
| Die penetrant/ grinding area | Die penetrant/ grinding area | LEV 003 Lakestyle filter Type LW 22. Wet dust extraction | |
| **(c) Plant and equipment with no abatement and internal releases only** | | | |
| **Plant and equipment** | **Appendix 2 machine location reference** | | |
| Striko 900kg dosing furnace | Wheel cell – hold 1 | | |
| Nitrogen flux injector | Wheel cell | | |
| Rotary flux degreaser | Wheel cell | | |
| UBE 350T diecasting machine | UBE cell | | |
| Gas fired bale-out holding furnace | UBE cell – hold 2 | | |
| Smetek 800T hydraulic press | Cell 7 | | |
| Gas fired bale-out holding furnace | Cell 7 – hold 3 | | |
| Smetek 1000T hydraulic press | Cell 8 | | |
| Gas fired melting furnace | Cell 8 – melt 3 | | |
| Gas fired bale-out holding furnace | Cell 8 – hold 4 | | |
| Two of Acheson hand-spray systems | Mobile to be used in all cells | | |

**Emission controls, limits and monitoring provisions**

**9.** The emission limits, provisions, methods and frequency set out in Table 3 shall be complied with.

**Table 3 – Emission limits, methods and frequency**

| Substance | Emission Limit | Source | Type of monitoring method | Monitoring frequency |
|---|---|---|---|---|
| Total particulate matter | 20 $mg/m^3$ | Stack A1 | Manual extractive test | Annual |
| Fluoride (expressed as Hydrogen Fluoride) | 5 $mg/m^3$ | Stack A1 | Manual extractive test | Annual |
| Chloride (Expressed as Hydrogen Chloride) | 5 $mg/m^3$ | Stack A1 | Manual extractive test | Annual |
| Dioxins | 1.0$ng/m^3$ | Stack A1 | Manual extractive test | Annual |

**Provisions**

a) The reference conditions for emission limits in Table 2 are: 273.1K, 101kPa, without correction for water vapour content, unless otherwise stated.

b) All manual extractive testing shall be representative and shall be in accordance with the relevant British or equivalent Standards.

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

d) The operator shall ensure that relevant stacks or ducts are fitted with facilities for sampling which allow compliance with the sampling standards.

**10.** The operator shall notify the regulator at least 7 days before any periodic monitoring exercise required by Table 2. The operator shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.

**11.** The results of non-continuous emission testing shall be forwarded to the regulator within 8 weeks of completion of the sampling.

**12.** No emission monitoring result shall exceed the emission limit in Table 2.

**13.** Adverse results from any monitoring activity 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.

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

**15.** All emissions to air shall be free from droplets.

**16.** Emissions shall be free of offensive odour beyond the site boundary.

**17.** 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 operations to minimise those emissions, and;
c. Promptly record the events and actions taken.

**18.** The regulator shall be informed without delay, whether or not there is related monitoring showing an adverse result, if there is an emission that is likely to have an effect on the local community.

**19.** Where any emission limit in Table 3 cannot be met, emissions shall be abated.

**Operational Controls**

**20.** The use of grain modifiers, oxidation control materials, fluxes and degassing agents shall be reduced to a minimum consistent with good operating practice.

**21.** Furnaces shall be fitted with temperature controls to ensure that melting temperatures are kept as low as possible to minimise the emission of fume.

**22.** Where practicable, emissions from charging and pouring operations shall be adequately contained by the use of local exhaust ventilation and, where necessary to meet the requirements of this permit, vented to suitable arrestment plant.

**23.** All scrap to be melted shall be free from oil, paint, or grease. The operator shall implement an assessment and selection process to ensure that only clean scrap is melted. Sufficient evidence shall be provided to the regulator on inspection to demonstrate the necessary assessment and selection process for identifying clean scrap.

**24.** The use of hexachloroethane is not allowed.

**25.** The final exit velocity from the stack known as A1 shall not be less than 15m/s under normal operating conditions.

**26.** The stack known as A1 shall not be fitted with any cap or any other restriction or deflection plate at the final exit point. Approval by the regulator must be sought before a cowl to increase the exit velocity is fitted.

**27.** All new plant should be contained such that emissions are extracted and ducted to a single emission point that is designed so that monitoring can take place.

**28.** Finishing processes shall be undertaken in areas with extraction or using equipment incorporating built in extraction equipment. No emissions from finishing processes shall be extracted externally without prior approval with the regulator.

**29.** Emissions from casting processes shall be captured and vented to suitable arrestment plant. No emissions from the casting process shall be extracted externally without prior approval with the regulator.

**30.** All processes likely to emit into the air any particulate matter, but excluding the storage and transfer of raw materials, shall be undertaken in a building of suitable construction to minimise emissions to air.

**Fugitive emissions**

**31.** All potentially dusty materials shall be stored in covered containers or undercover.

**32.** All spillages shall be cleared as soon as possible. Dry sweeping of dusty spillages shall not be permitted.

**33.** A high standard of housekeeping shall be maintained.

**34.** All dusty wastes shall be stored in closed containers and handled in a manner that avoids emissions.

**35.** Dross and ash shall be handled and stored under dry conditions.

**36.** External surfaces of the process building, ancillary plant and open yards and storage areas shall be inspected at least annually and cleaned if necessary to prevent the accumulation of dusty material in circumstances where the dust may become wind entrained. Particular attention shall be paid to roofs, guttering, roadways, external storage areas and yards. Cleaning operations shall be carried out by methods which minimise emissions of particulate matter to air.

**37.** Where practicable, emissions of fume shall be minimised from the plant and equipment listed in Table 2(c). Where in the opinion of the regulator that fume

from the plant and equipment in Table 2(c) may cause emissions to atmosphere, or cause nuisance, the plant and equipment shall be abated.

**Maintenance**

**38.** Flues and ductwork should be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.

**39.** The operator shall have the following available for inspection by the regulator:

a. A written maintenance programme for all pollution control equipment; and
b. a record of maintenance that has been undertaken.

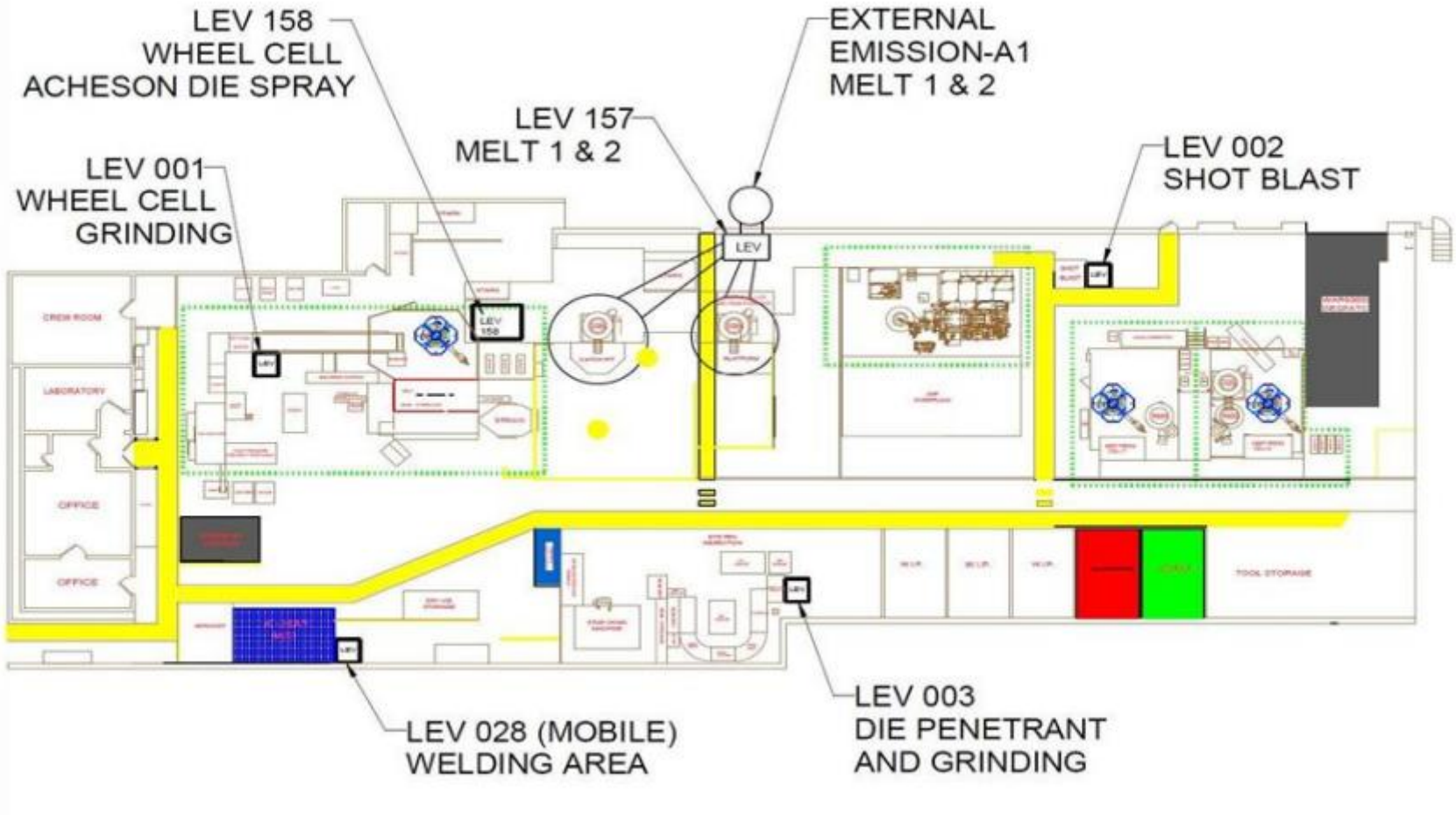
**40.** All staff whose functions could impact on air emissions from the activity shall receive appropriate training on those functions. This shall include:

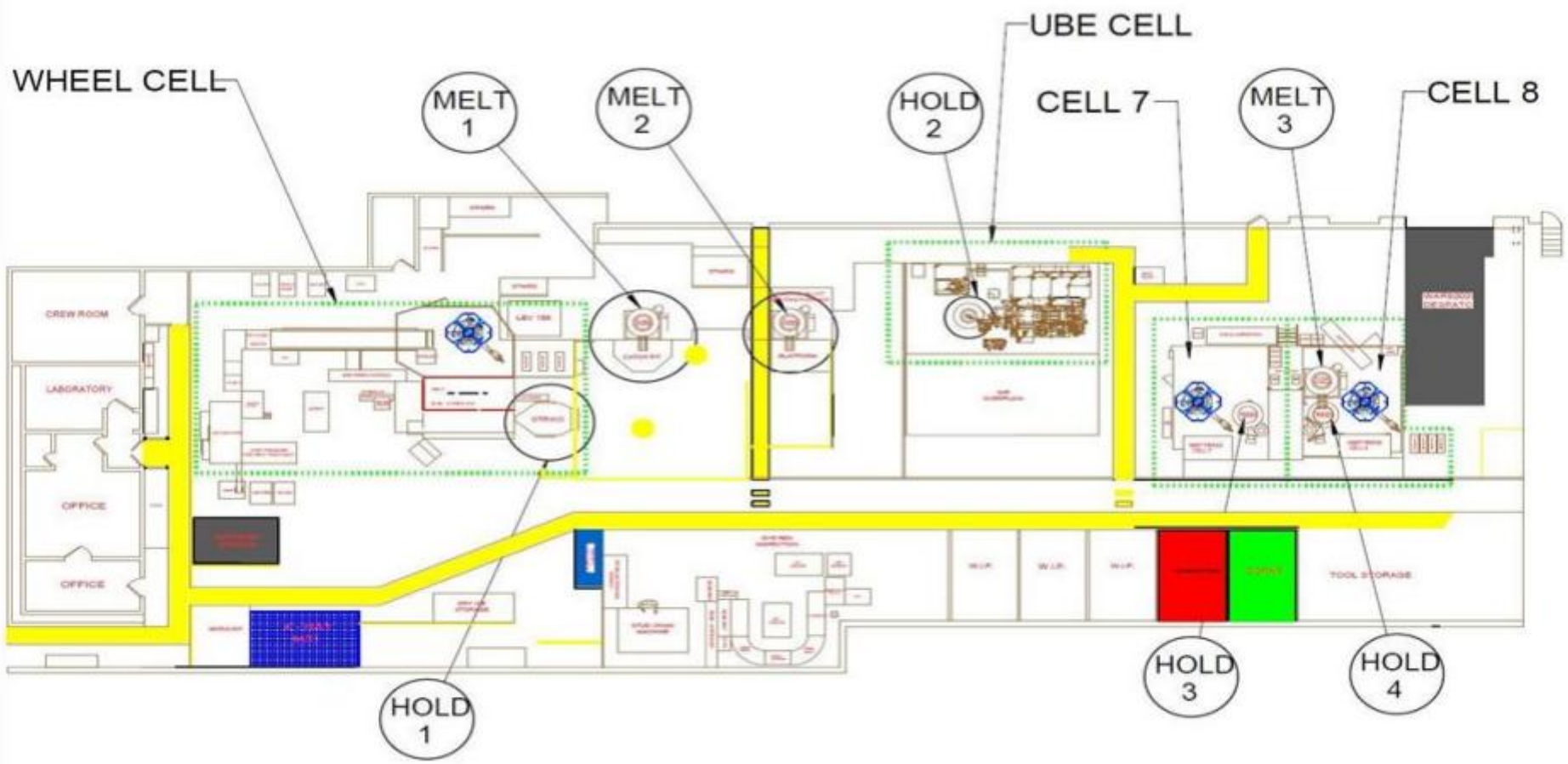
a. Awareness of their responsibilities under the permit;
b. steps that are necessary to minimise emissions during start-up and shutdown;
c. actions to take when there are abnormal conditions, or accidents or spillages that could, if not controlled, result in emissions.

**41.** The operator shall maintain a statement of training requirements for each post with the above-mentioned functions 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**

**Appendix 2. Site maps**






**End of Permit Conditions**

# Guidance

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

**BAT (Best Available Techniques)**

Article 3(10) of the Industrial Emissions Directive (IED) defines "best available techniques" as follows:

"*the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent, and where that is not practicable, generally to reduce emissions and the impact on the environment as a whole*".

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

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

**Appeal procedure**

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 procedure guidance can be found at:
Environmental permit - Guidance on the Appeal procedure - GOV.UK

Please note:

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

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. environmentalprotectionteam@telford.gov.uk

**Correspondence Address**

All correspondence to Telford & Wrekin Council relating to this information shall be addressed to: Public Protection Team, Telford and Wrekin Council, Darby House, Lawn Central, Telford, TF3 4JA.