

Permitting Decisions- Bespoke Permit

We have decided to grant the permit for ITM Power operated by ITM Power UK Limited.

The permit number is EPR/LP3024SD.

The permit was granted on 22/01/25.

The application is for a hydrogen electrolyser manufacturing facility. The activities undertaken at the facility are S4.2 A(1)(b) and S4.2 A(1)(c). The National Grid Reference for the centre of the site is SK 39894 90515.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It:

- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account,
- highlights [key issues](#) in the determination,
- shows how we have considered the [consultation responses](#).

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit.

Key issues of the decision

EMS

The site implements a bespoke Environmental Management System (EMS) that will be audited at regular intervals to ensure continued compliance and effectiveness. All site operations are covered by the EMS.

Site Condition Report

The site condition of the land to be included within the Permit has been assessed in line with current Environment Agency guidance. The applicant confirmed that there have been no recorded pollution incidents by ITM Power, nor any use of the land which may have led to ground contamination issues.

Risk assessment

The environmental risk assessment report has demonstrated that for the operations and their potential impacts, there is a low/insignificant environmental risk associated with the activities outlined within the permit application.

Therefore, no further assessments or mitigation measures are considered to be necessary for these activities/impacts. The management controls and mitigation techniques required for continued control of risks and prevention of impacts from accidents are detailed within the application documents.

All wastes produced on site will be stored in containers that are appropriate for the substances stored and incompatible waste types will be kept separate.

The site has two point source emissions to air.

A1 – the acid etch machine and acid rinse tanks have a common emission point with emissions in the form of hydrochloric acid and sulphuric acid vapour.

A2 – for the Tunnel Oven releasing Volatile Organic Compounds (VOC's) from used solvents.

The acid gases will be subject to abatement via a wet scrubber using a caustic soda solution. The scrubber will be fitted with an automatic dosage system and emergency high level alarm.

It is worth noting that the mass flow of sulphuric acid from both the acid etch machine and acid rinse tanks (0.8 g/h and 2.3g/h) is considered a minor emission (the mass flow of the substance concerned is below 500 g/h) and the BAT-AEL does not apply.

The emission testing results for the tunnel oven show that the Total VOC (TVOC) emissions (2.6 mg/m³) are well below the limit value of 75mg/m³, hence no abatement and monitoring is required.

The applicant has provided an H1 assessment showing that the emissions are insignificant. We agree with the conclusion of the H1 assessment.

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Click on 'test 1' to run the test. If you change the information in the "air release tab", please rerun the test.

User input: Formula/calculation, Tests

Select test to view: First, <, >, Last, Air, Water

Environmental Assessment

Test 1	Number	Substance	Long term EAL (ug/m3)	Long term PC (ug/m3)	%PC of EAL (long term)	>1% of EAL? (long term)	Short term EAL (ug/m3)	Short term PC (ug/m3)	%PC of EAL (short term)	>10% of EAL? (short term)
	1	Hydrogen chloride	0	0.001614352			750	0.031842536	0.00%	pass
	2	1-propanol	5000	0.028598036	0.00%	pass	62500	0.560543244	0.00%	pass
	3	2-propanol	9990	0.028598036	0.00%	pass	125000	0.560543244	0.00%	pass
	4	Sulphuric acid	10	0.000922487	0.01%	pass	300	0.018081449	0.01%	pass

The site has no point source emissions to surface water and two point source emissions to sewer (Yorkshire Water Blackburn Meadows Sewage Treatment Works).

S1 – Uncontaminated surface water.

The clean factory yards and road areas are covered with an impermeable surface and laid to fall to dedicated gullies fitted to the surface water drainage system.

S2 – Trade effluent from the Installation.

Process Effluent is generated from the Component washing in the Turbex and Technowash parts washing machines. The process effluent is collected and discharged to sewer under an agreed trade effluent consent.

The effluent from all other processes is captured in Intermediate Bulk Containers (IBC's) stored in a bunded area and removed from site as hazardous waste.

Noise

The applicant submitted a noise assessment as part of the application and concluded that the installation is not inherently noisy, and noise is not considered to be an issue at this facility. The majority of process operations occur within enclosed buildings, which restricts the possibility of noise transmission. We agree with the applicant's conclusions.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has been made.

We have accepted the claim for confidentiality.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

We consulted:

- Sheffield City Council – Environmental Protection Department
- Sheffield Fire & Rescue
- Director of PH/UKHSA
- Health and Safety Executive
- Yorkshire Water Sewerage Authorities

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

Operator

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility including the discharge points.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

There is one Local Nature Reserve (Woolley Wood) and 11 Local Wildlife Sites (Lower Don Valley:Sheffield & Tinsley Canal, Lower Don Valley:Disused Railway-Meadowhall, River Don (City Centre to Blackburn Meadows), Blackburn Meadows, Blackburn Brook, Bawtry Road Wetlands, Tinsley Ponds, Wincobank Hill, Sheffield & South Yorkshire Navigation, Seventy Acre Hill, Woolley Wood).

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be screened out as environmentally insignificant.

Operating techniques

We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included improvement condition (IC) 1 to ensure that the air emissions and risk assessment provided as part of the application are representative of the actual operation of the site and to review the monitoring limits included in table S3.1 if it is deemed necessary.

We have included IC2 for the operator to further demonstrate that the emissions to sewer will not have significant impacts on the environment, and if necessary to review the monitoring limits included in table S3.2.

Emission Limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for the following substances: hydrogen chloride.

Monitoring

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

These monitoring requirements have been included in order to comply with BAT for common waste gas management and treatment systems in the chemical sector

We made these decisions in accordance with EPR core guidance.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have specified reporting in the permit.

We made these decisions in accordance with EPR core guidance.

Management System

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section:

Response received from Sheffield City Council Public Health Team.

Brief summary of issues raised: no significant concerns regarding the risk to the health of the local population from the installation.

Summary of actions taken: N/A.