

Natural Resources Wales permitting decisions

ROCKWOOL Limited (Pencoed ROCKWOOL) Decision Document

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Variation

The variation number is: EPR/BS6149IQ/V011 (PAN-019896)

The operator is: ROCKWOOL Limited

The Installation is located at: Pencoed ROCKWOOL, Wern Tarw, Pencoed, Bridgend CF35 6NY

We have decided to Issue the variation for Pencoed ROCKWOOL operated by ROCKWOOL Limited.

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.

ROCKWOOL Limited have applied to vary their permit (EPR/BS6149IQ) for Pencoed ROCKWOOL site to make the following changes:

- The addition of a flue gas desulphurisation abatement plant on line 3 cuopla and associated emission point A19 to allow the site to meet the BAT emission limit of 1400 mg/m³.
- Expand the waste products accepted under table S2.2 to include products manufactured outside the UK by ROCKWOOL Limited's other sites operated by Rockfon.
- Addition of discharge point to sewer (S1) to reflect that the settlement tank has now been connected to sewer.
- Removal of a 4.1 Part A(1) a(ii) activity (formally AR2) and associated emission points A27 and A28. This activity was for the production of resins which is no longer carried out on site.
- Removal of references to one of the Pipe Section plants RSM 3 and its associated emission point A13c as this has removed from the site.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

Key issues of the decision

Receipt of application

Confidential information

A claim for commercial or industrial confidentiality has not been made.

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 commercial confidentiality.

Consultation

The consultation was not required for this kind of variation. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.

The facility

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities:

- S3.4 Part A(1) (a) Melting mineral substances including the production of mineral fibres in plants with a melting capacity exceeding 20 tonnes per day. Manufacture of mineral fibre on 3 production lines.

The installation also comprise of the following directly associated activity (DAA)

- Products handling and recycling facilities

The regulated facility is a waste operation at which also carries out the following recovery operations:

- R5: Recycling / Reclamation of other inorganic materials
- R13: Storage of wastes pending any of the operations R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

The variation will not add any new installation, waste or directly associated activities to the permit. As part of this variation, the S4.1 Part A(1) a(ii) activity (formally AR2)

has been removed from the permit as this activity is no longer carried out on site. The directly associated activity (previously AR3) has been renumbered as AR2.

Legislation

NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources

All applicable European directives have been considered in the determination of the application.

The site

The operator has provided a plan showing the location of the new discharge point to sewer and an updated site plan. There are no change to the site boundary.

Site condition report

There is no change to the site boundary as part of the variation.

Biodiversity, Heritage, Landscape and Nature Conservation

The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat .

The following designated sites were identified within the relevant screening distances:

Special Areas of Conservation (SAC) (10 km from installation):

- Blackmill Woodland (UK0030090)
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands (uk30030113)

Sites of Special Scientific Interest (SSSI) (2km):

- Brynna a Wern Tarw

Local wildlife site (2km):

- Fernbank East

There are also 35 ancient woodland sites with the screening distance (2 km).

Given that the site will meet the existing emission limits in the permit and there are no new emission points to air or surface water and the proposal would not lead to any increase in emissions to air, the variation is unlikely to pose any additional risks to any of the sites identified.

A full assessment of the application and its potential to affect the SAC identified was not required as there was no impact pathway from the variation on the designated features. This has been documented in a OGN 200 form 1.

An Appendix 4 has been completed to assess the impact on the SSSI identified and it was concluded the proposed permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest

Environmental Risk Assessment

Air

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stack and its impact on local air quality.

Desulphurisation plant

The addition of the new desulphurisation plant on the Cupola line 3 (through emission stack A19) will reduce the emissions of sulphur dioxide from the line and allow the site to achieve the BAT emission limit on A19 of 1400 mg/m³. Previously NRW had allowed the site to operate with an emission limit of 2200 mg/m³ as a result of an improvement condition (IP18V).

The new desulphurisation plant will inject sodium bicarbonate into the flue gas stream to remove the sulphur dioxide which result in residual dust. As such the desulphurisation plant will include a bag filter to remove the dust. This technique is an established technique referenced in the Best available techniques reference (BRef) for the manufacture of glass. The emission point A19 already has emissions limits and monitoring requirements for particulate matter (daily average limit of 10 mg/Nm³ and 30 mg/Nm³).

Emissions from the Rockfon waste

As part of this variation, waste accepted under table S2.2 to accept waste from Rockfon sites (outside the UK) will be extended.

The applicant has stated that the increase in HCL and HF would be <3 ppm and <2 ppm before abatement (approximately 4.89 mg/m³ and 1.69 mg/m³)¹. Given that the low concentration before abatement it is unlikely that Rockfon waste will lead to an exceedance of the emission limits and therefore the worst case scenario for emissions will remain unchanged as a result of the acceptance of the new Rockfon waste.

The predicted changes in chlorine and fluorine concentrations in the waste gas stream in the worst case when using Rockfon waste were 0.6% for chlorine and 0.8% for fluorine pre abatement. Given the very low increase in concentrations before abatement use of waste tiles from Rockfon sites are unlikely to lead to any increase risk of furan or dioxin emission.

Given the evidence submitted we have concluded that the use of Rockfon waste would not lead to any new emissions or lead to any risk of increase in existing emissions and the operator will continue to meet the emission limits in their permit.

Removal of Emission Point A13c, A27 and A28

At the operator's request we have also removed emission point A13c which was the associated emission point for Pipe Section plants (RSM 3) which has now been removed.

The operator has also stated that the phenol urea resin production activity is no longer carried out (previously carried out under a listed 4.1 Part A(1) a(ii) activity) and the equipment has been removed. As such the emission points A27 and A28 associated with this activity from the permit

¹ Assumes conversion from ppm to mg/m³ at 273K and 101.3KPa as per Environment agencies guidance [Monitoring stack emissions: guidance for selecting a monitoring approach - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/monitoring-stack-emissions-guidance-for-selecting-a-monitoring-approach)

Emission limits

There are no changes to the emission limits in the permit as a result of the variation. The proposed desulphurisation plant will allow the operator to achieve the ELV for sulphur dioxide of 1400 mg/m³.

The site presently has limits for particulate matters for emission stack A19. The emission limits for sulphur dioxide on the other two line Cupola 1 and Cupola 2 will remain at the agreed limit of 2200 mg/m³ (as per note 4 for table S3.1).

There are no proposed changes to any other limits.

Water

There are no proposed changes to the permitted discharges to surface water. However ROCKWOOL Limited have extended their settlement tank and have connected the tank to the sewer. The settled waste will primarily discharge to sewer under a trade effluent consent. The permit has been varied to include the discharge to sewer (as emission point S1 in table S3.3). The operator will continue to discharge via emission point W1 in the event of an overflow of the settlement tank.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

Emission limits

There are no changes to the emission limits to surface water discharge. The operator will continue to monitor for discharge to surface water.

We have not imposed any limits for the discharge to sewer. The applicant has a trade effluent consent for the discharge to sewer.

Soil

There are no changes to the site layout or the boundary as a result of the variation.

Odour

We have considered that the activities proposed in the variation will not lead to any increase in risk of odour from the site at the nearest residential receptors.

Noise

We have considered that the variation will not change the noise impact from the site on the nearest residential receptors.

Fugitive emissions

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions and to prevent pollution from fugitive emissions.

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.

There are no changes to monitoring frequency as a result of the variation. We have amended the monitoring parameters so that they now reference the current guidance. The previous permit made reference to technical guidance M2 which has since been superseded by the Environment agencies guidance: [Monitoring stack emissions: techniques and standards for periodic monitoring - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/monitoring-stack-emissions-techniques-and-standards-for-periodic-monitoring) for periodic monitoring and guidance note M20 for continuous monitoring.

Reporting

We have removed reporting requirements for emission point A13c due to the removal of this emission point its associated activity RSM 3. There has been no other changes to the reporting parameters.

Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.

The new desulphurisation plant consist of injecting sodium bicarbonate into the gas stream. The residual is collected by bag filters and then send off site for disposal. This technique is in line with the BAT conclusion for manufacture of glass ([Commission Implementing Decision of 28 February 2012 establishing the best available techniques \(BAT\) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for the manufacture of glass \(notified under document C\(2012\) 865\)Text with EEA relevance \(europa.eu\)](#) and [Best Available Techniques \(BAT\) Reference Document for the Manufacture of Glass](#)

We have also integrated the responses to improvement conditions IP13V-IP16V and IP18V that have been agreed by in writing by Natural Resources Wales into the operating techniques table (Table S1.2).

The permit conditions

Updating permit conditions during consolidation

We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit.

The operator has agreed that the new conditions are acceptable.

Raw materials

There are no changes to the specification of raw materials in the permit.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

There are no additional waste codes being added as part of the variation. However the applicant has proposed to expand the waste being accepted under waste code in Table S2.2 to include wastes from other ROCKWOOL Limited's sites produced under ROCKWOOL Limited's sister company Rockfon. While the waste falls under the existing code, there are variations in the concentration of chemical elements present in the Rockfon waste. For information on the impact of variations in chemical elements please see the section on Air in Environmental Risk Assessment.

Pre-operational conditions

Based on the information in the application, we consider that we need to impose pre-operational conditions. Details of the pre-operational conditions used can be found at Annex 1.

The pre-operational condition is for the applicant to submit a report on the finalised waste acceptance procedures and criteria for accepting the waste product manufactured by Rockfon.

Improvement conditions

We have put in an improvement condition for the operator to submit a report for the development in reduction of ammonia emissions to air and to monitor reduction of ammonia deposition at the nearest SSSI. This is not directly linked to this variation application but the Operator has agreed to incorporate this improvement condition into this variation. Details of the improvement conditions used can be found at Annex 2.

Incorporating the application

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including additional information received as part of the determination process.

These descriptions are specified in the Operating Techniques table (table S1.2) in the permit.

Environment management system

There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.

OPRA

The OPRA score at permit issue is 88.

ANNEX 1: Pre-Operational Conditions

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
PO1	Acceptance and use of waste stone material from Rockfon Sites	Before the acceptance of waste from Rockfon sites the operator must submit to Natural Resources Wales the finalised waste acceptance criteria and waste acceptance procedures for accepting waste stone from Rockfon sites and receive written approval from Natural Resources Wales.

ANNEX 2: Improvement Conditions

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IP22V	A written report shall be submitted to Natural Resources Wales for approval. A report describing the development and implementation of ammonia emissions reductions to air and the predicted or monitored improvement in process contribution at the Brynna a Wern Tarw SSSI. Further reports shall be submitted annually, subject to review following implementation of emissions reductions, and until notified in writing by Natural Resources Wales.	31/12/2023