

Natural Resources Wales permitting decisions

IQE Silicon Compounds Limited (IQE Silicon Compounds Limited) Decision Document

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New bespoke permit/variation

The variation number is: EPR/BJ6968IY/V003

The Operator is: IQE Silicon Compounds Limited

The Installation is located at: IQE Silicon Compounds Limited, Beech House, Cypress Drive, St. Mellons, Cardiff, CF3 0LW

We have decided to issue the variation for IQE Silicon Compounds Limited operated by IQE Silicon Compounds 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.

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

The application from IQE Silicon Compounds Limited to vary their permit was received at Natural Resources Wales (NRW) on 20th June 2022. An assessment was carried out to determine whether the application could be deemed 'duly made' on 20th September 2022. The application was deemed 'duly made' from receipt.

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 minor nature of the application means that there are no consultation requirements.

Operator

There are no changes to the Operator as a result of this variation. We are satisfied that the Operator is the person who will have control over the operation of the facility after the variation has been issued. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of Operator.

The facility

There are no changes to the extent/nature of the facilities taking place at the site as a result of this variation.

The regulated facility is an Installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations (EPR).

- Section 4.2 Part A(1) (b) Unless falling within any other Section, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air

or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water).

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

There are no changes to the site plan as a result of this variation. The Operator is required to carry on the permitted activities within the site boundary.

Site condition report

There are no changes to the site condition report as a result of this variation.

Biodiversity, Heritage, Landscape and Nature Conservation

There are no changes to emissions, emission points or permitted emission limits as a result of this variation. Impacts on nearby sites of heritage, landscape or nature conservation, and/or protected species or habitat, have therefore not changed as a result of this variation, and there is no requirement to assess them.

Environmental Risk Assessment

Air

There are no changes to air emissions as a result of this variation. This was confirmed by the Operator via email on 29th September 2022.

The Operator's permit for the site allows emissions to air from semiconductor reactors. These emissions are currently abated through a two stage system of wet scrubber (to remove chlorine) and dry bed scrubber (to remove dopants and Germanium). The site had a previous variation to their permit in 2008 to remove the dry bed scrubber on low dopant processes (emission points A1-A6 inclusive).

The wet and dry scrubbers are to be replaced due to approaching end of life. The new system will follow the same wet scrubber method, however the dry bed scrubber method will no longer capture higher concentration dopants/Germanium or send the resin for disposal and refill. Instead, the dopants/Germanium will be incinerated by thermal decomposition at point of use.

The new system is proposed to be more efficient on the scrubbing of gases and will improve carbon footprint by removing the need for transportation of resin media from Wales to Scotland and back. Additionally the pH neutralisation will be incorporated at POU and reduce water consumption.

Emission limits

There are no changes to air emission limits as a result of this variation.

Water

There are no emissions to water from the permitted facility.

Soil

There are no changes to the site condition report as a result of this variation.

Odour

There are no changes to odour emissions as a result of this variation.

Noise

There are no changes to noise levels as a result of this variation.

Fugitive emissions

There are no changes to fugitive emissions as a result of this variation.

Monitoring

There are no changes to monitoring as a result of this variation.

Reporting

There are no changes to reporting as a result of this variation.

Operating techniques

The Operating Techniques table in the permit has been amended to include reference to updated techniques associated with the new abatement system. We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. We consider the new techniques to be appropriate for the facility.

The permit conditions

Updating permit conditions during consolidation

The permit has not been consolidated as a result of this variation.

Use of conditions other than those from the template

Based on the information in the application, we do not consider that we need to impose conditions other than those in our permit template, which was developed in consultation with industry having regard to the relevant legislation.

Raw materials

There are no changes to raw materials and fuels as a result of this variation.

Waste types

There are no changes to waste types as a result of this variation.

Pre-operational conditions

Based on the information in the application, we do not consider that we need to impose pre-operational conditions.

Improvement conditions

Based on the information on the application, we do not consider that we need to impose improvement conditions.

Conditions where the consent of another person is needed.

Based on the information submitted in the application, we do not consider that it is necessary to impose conditions where the consent of another person is needed.

Incorporating the application

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

These descriptions are specified in the Operating Techniques table in the permit.