

Compliance Assessment Report CAR_NRW0042085

Permit being assessed: AB3893FZ.

For: Newport Semiconductor Facility, **held by:** IQE Silicon Compounds Ltd

At: Imperial Park, Celtic Way, Celtic Lakes, Newport, Newport, NP10 8BE.

Type of assessment: Report/Data Review,

Reason: Other.

On: 05/07/2023.

Parts of permit assessed: Notifications.

NRW Lead Officer: Luke Burton.

Report sent to: Andrew Mason, Group HSE Manager UK & Asia, on 05/07/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR4C - Information - Notification	C3 Minor (Suspended)	4.3.5
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor (Suspended)	3.2.1

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
2	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR4C	On-going conditions. See conditions of research, development and testing in CAR body.	Already completed
IR3A	On-going conditions. See conditions of research, development and testing in CAR body.	Already completed

Compliance criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

This Compliance Assessment Report (CAR) has been produced in response to IQE Silicon Compounds Limited (hereinafter referred to as IQE) request to conduct research, development and testing (hereinafter referred to as RDT) of 10 Gallium Nitride (GaN) G5 reactors at their Newport Semiconductor Facility.

The RDT of the G5 reactors is not possible under the current permit conditions due to differing emissions, raw materials and abatement technology. Therefore, IQE have requested to conduct this RDT under Schedule 1, Part 1, Paragraph (3) C of The Environmental Permitting (England and Wales) Regulations 2016.

The short-term aim of the RDT phase will be to develop, test and qualify the Aixtron G5 reactor process within 12 months. This qualification aims to demonstrate IQE's ability to manufacture their product consistently and reliably on one single G5 reactor, and then test up to 10 G5 reactors to ensure repeatability.

The long-term aim of the RDT phase will be to validate IQE's technology and manufacturing capability to produce on a large scale and is a prerequisite to enable the expansion at their Newport Semiconductor Facility.

The RDT represents a change in the nature or functioning of the activities which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit.

This RDT has been assessed solely on the basis of the information provided taking into account all relevant considerations and legal requirements, at this time.

This CAR approves the RDT under condition 4.3.5 of the environmental permit given that Natural Resources Wales have been notified of the change at least 14 days before making the change and the notification contains a description of the proposed change in operation.

For completeness, condition 4.3.5 states:

Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) Natural Resources Wales shall be notified at least 14 days before making the change;
and

(b) the notification shall contain a description of the proposed change in operation.

The description of the proposed change comprises the following documents:

- *NRW Response IQE (002)*
- *IQE Permit Overview Letter*
- *IQE RD ERA V1 19 May 2023_ISSUE*

The RDT is approved on the basis of the below conditions:

1. The RDT period is time limited to 12 months from 5th July, 2023.
2. An environmental permit variation application [1] covering the RDT activities must be submitted by IQE as soon as possible [2].
3. The RDT is conducted in line with the above referenced documents.
4. All relevant operating techniques documents [3] are updated to reflect the RDT.
5. Natural Resources Wales reserve the right to cease the RDT if revised operating techniques are not followed or following any adverse environmental impacts.
6. IQE provide regular updates [4] to Natural Resources Wales on the RDT and provide a final report of lessons learnt.
7. IQE undertake emission monitoring of 1 - 10 G5 reactors to prove assumptions made within the risk assessment - *IQE RD ERA V1 19 May 2023_ISSUE*.
8. The approval of this RDT does not preclude IQE from having to at a future date gather and supply further information on the RDT at the request of Natural Resources Wales [5].
9. It is IQE's responsibility to ensure compliance with all other legal requirements including obtaining any other required authorisations and making relevant notifications (such as those relating to Control of Major Accident Hazards (COMAH))

Suspension of permit breaches

Suspended permit breaches have been scored against permit conditions 4.3.5 and 3.2.1 as is standard procedure for approved RDT.

The scores are suspended for the time limited RDT period. The score is based on the foreseeable risk most likely to occur from the activity, based upon the Operators risk assessment - *IQE RD ERA V1 19 May 2023_ISSUE*

If the agreed conditions of the RDT or condition 3.2.1 of the permit is breached the suspended score, or score appropriate to the breach, is then enforced via a CAR and NRW will consider whether any further enforcement response is needed.

If no breach is recorded a future CAR will state the suspended score is withdrawn.

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- [1] Any research, development and testing will not predetermine the outcome of the permit application process
 - [2] Deadline for application to be agreed in writing by Natural Resources Wales
 - [3] Including, but not limited to, Environmental Management System, Accident Management Plan, Techniques for Process and Emission Control, and Best Available Techniques assessment
 - [4] Frequency and content of update and report to be agreed in writing by Natural Resources Wales
 - [5] Including, but not limited to, additional emissions monitoring
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END

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):

1. Management

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or

suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.