

Compliance Assessment Report CAR_NRW0042279

Permit being assessed: BV7460ID.

For: Newport Semiconductor Plant, **held by:** Nexperia Newport Limited

At: Cardiff Road, Newport, South Wales, NP10 8YJ.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 10/08/2023.

Parts of permit assessed: Schedule 5 Notification - F-Gas leak.

NRW Lead Officer: Rebecca Green.

Report sent to: Sarah Underwood, Environment Engineer, on 18/08/2023.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Management - General management	C3 Minor	1.1.1(a)
IR3B - Emissions and monitoring - Emissions of substances not controlled by emission limits	Assessed (A)	
IR4C - Information - Notification	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
1	4

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
IR1A	Review sensitivity and positioning of toxic gas monitors. Consider installation of load cells under equipment containing F-gas.	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

On 28th July 2023 Natural Resources Wales (NRW) received a Schedule 5 Notification from Nexperia to inform them that a leak of F-gas from one of the chiller units in Fab 11 had been discovered during a routine leak inspection on 14th June 2023.

The leak was repaired and the chiller passed its leak test on 28th July 2023.

The F-Gas Regulations place several obligations on users of equipment containing these gases, including regular leak testing by a competent person, timely completion of repairs and leak testing after any repairs have been carried out.

Nexperia comply with the regulations. All equipment containing F-gas is tested at the frequency given in the regulations, in this case every six months because leak detection equipment is used and relevant documentation is retained.

The chiller passed its leak test in January 2023 but failed in June 2023. The leak was due to a faulty "o" ring and a failed port.

The toxic gas monitors did not detect the leak.

IR1A Action: Review sensitivity of toxic gas monitors and their position relative to the chiller units and likely spread of any leak. Replace and/or reposition as necessary.

The sensitivity and positioning of the toxic gas detectors have been reviewed.

Nexperia will be replacing the gas detector heads with a more reliable type and they will be re-positioned so that they are more likely to detect any leaks. The lead time is about three months and delivery is expected in December.

IR1A Action: Determine the feasibility of installing load cells under all chiller units.

Nexperia have investigated the feasibility of installing load cells under the chiller units in Fab 10 and Fab 11.

Load cells will be installed under all chillers with an F-Gas charge >500tCO₂e, where determined to be practicable and not cost prohibitive. They will alarm on the building management system. Installation in Fab 11 is possible, but is more problematic in Fab 10 and Nexperia will continue to review this. Lead times are also long and NRW have not been given an expected delivery date.

These actions, as written above, have been completed but NRW would like to see evidence of installation of the detectors and load cells without delay following completion and at the latest by 1st March 2024.

NRW accept that the installation of load cells in Fab 10 may not be possible, but Nexperia should inform NRW of their decision as soon as it is made.

The chiller was not repaired until six weeks after the leak was discovered. The regulations require leaks to be repaired "without undue delay". Whilst the reasons for this delay are understandable, **Nexperia should review their internal procurement procedure and the response time with their supplier to ensure that such delays are not repeated in the future.**

Nexperia have discussed the response time with their suppliers and emphasised their expectation that, once a leak is detected, action should be taken by the supplier, as soon as possible, to minimise further pollution from the leak.

Nexperia estimate that 246Kg of gas were lost. This gas may contribute to global warming and the loss has a CO₂e of 352T. The chiller is in a dedicated building with heat extraction, which emits to atmosphere, and a roller shutter door which would also allow any gas to escape to atmosphere. There was therefore the potential to release pollutants to atmosphere and it is quite likely that there were some F-gas emissions to air. In view of this, Nexperia have been issued with a Cat 3 non-compliance.

The operator's comprehensive review of, and response to, this release has demonstrated best practice and, once the measures above are in place, NRW feel reasonably confident that the likelihood of a recurrence of a similar incident is much reduced.

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.