

Compliance Assessment Report CAR_NRW0049137

Permit being assessed: AP3433ES.

For: Dowlais Slaughterhouse EPR/AP3433ES, **held by:** Kepak Group Limited

At: Pengarnddu Industrial Estate Dowlais Top , Merthyr Tydfil, South Wales, CF48 2TA.

Type of assessment: Report/Data Review,

Reason: Other.

On: 28/07/2025 - 26/08/2025 between 09:00 and 09:00.

Parts of permit assessed: 2.1.2 Operating conditions.

NRW Lead Officer: Brigid Armstead.

Report sent to: Environmental Coordinator, Kepak Merthyr Tydfil, on 26/08/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2C - Installations - Operations - Operating techniques	C3 Minor	2.1.2
IR2C - Installations - Operations - Operating techniques	Action only (X)	
IR1A - Installations - Management - General Management	Action only (X)	

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
IR2C	Please confirm whether a review of MoC procedures has been initiated, and provide a summary of findings and any proposed improvements.	31/12/2025
IR2C	Please submit a baseline assessment and gap analysis as per C736 principles for the Eq tanks.	31/12/2025

Criteria	Action needed	Complete by
IR1A	Please provide written confirmation of the steps that have been taken to ensure decommissioning of the overflow pipe from PP4 to PP8.	31/10/2025

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

This CAR is sent in response to the notification of a release of 170kg of F gas. Additionally, this CAR includes summaries and actions for the Eq tank containment and the PP4- PP8 Overflow line.

1. Refrigerant loss

NRW received a schedule 1 part A and B notification on the 28th July 2025 advising that 170kg of R449A was lost from a rented freezer unit on 16th July 2025 due to a faulty/leaking check valve.

The leak was discovered during an investigation into the unit not holding required temperatures. The valve was replaced and sealed, and the system was pressure tested to ensure the repairs held. The system was re-charged with 170kg of R449A refrigerant.

The unit is leased to Kepak, and all maintenance is contractually the responsibility of the owner. 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. The site have stipulated that a leak detection system will need to be installed on the units on site. Kepak have advised that meetings will be held to set out timelines for a leak detection system to be installed to the rental units, and call-out times arranged should there be leaks detected.

Permit condition 2.1.2 requires that all plant used in operating the installation shall be maintained in good operating condition.

The leak of 170kg of refrigerant has been assigned a **category 3 breach** of permit condition 2.1.2 due the leaked gas having potential to cause environmental harm.

Why R449A Causes Environmental Harm

R449A is a **hydrofluoroolefin (HFO)/hydrofluorocarbon (HFC) blend** designed as a lower-impact replacement for R404A. While it has **zero ozone depletion potential (ODP)**,

it still has a **significant global warming potential (GWP)**:

- **GWP of R449A: 1397**
- **ODP: 0** (no chlorine content, so it doesn't deplete the ozone layer)

This means that **1 kg of R449A released into the atmosphere has the same warming effect as 1397 kg of CO₂** over a 100-year period. So, a release of **170 kg** equates to **237,490 kg CO₂ equivalent**, which is substantial.

Although R449A is marketed as a "low GWP" alternative compared to R404A (GWP ~3922), it is still a potent greenhouse gas. Its release contributes to climate change and is regulated under **EU Regulation 517/2014** on fluorinated greenhouse gases.

As part of the investigation into the release of 170kg of R449A refrigerant, it is recommended that the site undertake a review of its Management of Change (MoC) procedures. The release may have been influenced by gaps in how changes to equipment, responsibilities, and maintenance arrangements were assessed and implemented.

Specifically, the following points should be considered:

- **Introduction of Leased Equipment:** The freezer unit involved in the release was leased, and its maintenance was the responsibility of the owner. MoC procedures should have ensured that the unit met site standards for environmental compliance, including leak detection and maintenance protocols.
- **Permit Compliance Assessment:** Any new or modified equipment should be reviewed against permit conditions, particularly Condition 2.1.2, to ensure it is maintained in good operating condition and does not pose a risk of environmental harm.
- **Responsibility and Oversight:** MoC should clearly define roles and responsibilities for maintenance, fault reporting, and emergency response, especially when third-party equipment is used.
- **Training and Operational Awareness:** Changes to equipment or systems should be accompanied by updates to site procedures and staff training to ensure prompt identification and response to faults.
- **Preventative Measures:** MoC should include a review of similar equipment on site to prevent recurrence, and ensure that future changes incorporate leak detection systems and robust maintenance arrangements.

Action: Please confirm whether a review of MoC procedures has been initiated, and provide a summary of findings and any proposed improvements. **Due 31 December 2025.**

2. Eq tank containment:

During a previous site visit (CAR_NRW0040895), it was noted that there does not appear

to be secondary containment for the effluent treatment plant equalisation tanks.

Kepak have since provided a containment risk assessment for the eq tanks. The next step to ensuring suitable segregation is to carry out a gap analysis as per C736 principles. In order to ensure that the containment systems associated with the effluent treatment plant equalisation tanks are fit for purpose and compliant with CIRIA C736 guidance, it is essential that a gap analysis is undertaken. A gap analysis provides a structured comparison between the current containment arrangements and the standards required for the appropriate containment class, based on environmental risk. This process enables the identification of any deficiencies or non-conformances in the existing infrastructure, such as structural defects, insufficient segregation, or inadequate capacity. By establishing a clear baseline and highlighting areas requiring improvement, the gap analysis supports effective risk management, informs targeted remedial actions, and ensures that containment systems are capable of preventing pollution and protecting the environment.

Please ensure that the containment facilities provided for the Eq tanks are inspected and quantified by a competent person to provide a baseline survey.

The baseline survey should identify any defects and allow for the containment facility class to be determined.

A gap analysis should then be completed to highlight any shortcomings with the existing containment facility compared to the class required under C736.

Action: Please submit a baseline assessment and gap analysis as per C736 principles for the Eq tanks. **Due 31 December 2025.**

3. PP4- PP8 overflow line

A site visit by NRW and DCWW officers to Kepak Merthyr Tydfil on 29th April 2025 included a viewing of PP8, where the overflow line from PP4 could be seen to have been closed off. Kepaks environmental coordinator advised that the decommissioning had been completed and that procedural changes had been put in place to ensure that PP8 does not overflow.

Action: Please provide written confirmation of the steps that have been taken to ensure decommissioning of the overflow pipe from PP4 to PP8. **Due 31 October 2025**

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.