

Compliance Assessment Report CAR_NRW0046087

Permit being assessed: BL4567IZ.

For: Clydach Nickel Refinery, **held by:** Vale Europe Limited

At: CLYDACH REFINERY, Clydach, Swansea, Swansea, SA6 5QR.

Type of assessment: Site Inspection,

Reason: Routine.

On: 16/12/2024 between 10:00 and 14:00.

Parts of permit assessed: See details.

NRW Lead Officer: Michael Launder, accompanied by Elliot Jones, Gary Evans.

Report sent to: Sustainability Supervisor, Vale Europe, on 07/04/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2E - Installations - Operations - Improvement programme	Assessed (A)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	Assessed (A)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	Action only (X)	

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

Total non-compliances recorded	Total non-compliance score
0	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
IR3A(2)	Operator to provide to NRW the most recent measurement of the proportion of nickel in total particulate emissions measured from A54 emission point.	30/04/2025

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.

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 was completed following a site visit by the NRW South West Industry Regulation Team, NRW Senior Specialist Advisor Air Quality, and NRW Specialist Advisor Air Quality Modelling on 16 December 2024. The aim of the visit was to meet with the operator and the Welsh Government Senior Air Quality Monitoring and Assessment Manager to discuss a recent update to an NRW model of nickel in air emissions in the Swansea Valley, and to visit the emission points on the plant.

Nickel in Air Modelling

The Air Quality Standards Regulations set a target value for nickel in air of no more than 20 nanograms/m³. NRW are working with Welsh Government, Local Authority and industries in improving compliance with the air quality target. In recent years the target level has been achieved, however following an exceedance of the target value at a monitoring site in Pontardawe in 2021, Welsh Government have reinstated the Nickel in Air programme which involves several stakeholders working together to minimise nickel air quality aspects.

As part of this work, Natural Resources Wales have revisited a previous air quality modelling exercise relating to emissions from the Vale nickel refinery to update the conclusions. Three monitored receptors in Clydach and Pontardawe were included in this assessment, and the average process contributions at each was calculated using atmospheric dispersion modelling software (ADMS) version 6. Source and emissions data was provided by the operator, and weather data was obtained from the Met Office.

The published results from the 3 monitoring sites were used for comparison with the modelled nickel concentration results. Although Vale is modelled to contribute between 37% and 77% of the measured concentration of nickel at the closest receptor site in Clydach, this site is consistently below the target value. The modelled contribution at the site exceeding the target values is only between 3% and 6% indicating the Vale is not a significant source of nickel emissions at the Pontardawe Tawe Terrace monitor, comparable with the results of the previous study.

In order to further refine the model, the operator agreed to provide the most recent results of the proportion of nickel in total particulate emissions measured at the site.

Action: Operator to provide to NRW the most recent measurement of the proportion of nickel in total particulate emissions measured from A54 emission point.

Site Walkover

During the site walkover, the main site processes that contribute to airborne nickel emissions were visited including the pellet and powder plant, and associated stack (A54

emission point).

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.