

## Compliance Assessment Report CAR\_NRW0043301

**Permit being assessed:** BL4567IZ.

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

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

**Type of assessment:** Report/Data Review,

**Reason:** Routine.

**On:** 31/12/2023.

**Parts of permit assessed:** Please see details.

**NRW Lead Officer:** Michael Launder.

**Report sent to:** Richard De Filippo, Sustainability Supervisor, on 23/02/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.2
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IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.2

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

Total non-compliances recorded	Total non-compliance score
4	16

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	Operator to submit a summary of the Pellet & Powder Plant Vacuum Cleaning System maintenance investigation outcomes to NRW	15/03/2024

Criteria	Action needed	Complete by
IR3A	Operator to submit a summary of the progress of the A1 burner upgrade project to NRW.	15/03/2024
IR3A	Operator to submit a summary of the investigation to reduce NOx emissions from A27 to NRW	15/03/2024
IR3A	Operator to submit a summary of the investigation to reduce CO emissions from A25 to NRW.	15/03/2024

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

#### Introduction

This CAR form has been issued in response to the submission of the quarterly and annual 2023 monitoring returns by the operator, and other compliance notifications for 2023.

#### Quarterly and Annual Returns

The returns required by permit condition 4.2.3 Reporting were submitted to NRW within the specified reporting period:

- The Q1 (January to March 2023) submission included all the results for quarterly parameters required over this period.
- The Q2 (April to June 2023) submission included all the results for quarterly parameters required over this period.
- The Q3 (July to September 2023) submission included all the results for quarterly parameters required over this period.
- The Q4 (October to December 2023) submission included all the results for quarterly parameters required over this period.
- The six monthly (January to June 2023 / July to December 2023) submissions included all the results for half-yearly parameters required over this period.
- The annual (2023) submission included all the results for annual parameters required over this period.

The reported emissions were within emission limits specified in the permit for the above monitoring periods, with the exception of the Schedule 5 reports for exceedances of emission limits outlined below.

#### Schedule 5 Notifications

##### Quarter 1 (January to March 2023)

A Schedule 5 notification submitted to NRW on 21 April 2023 gives the measured annual

dust result for 2023 at A36 (Filtered Extract from Pellet & Powder Plant Vacuum Cleaning System) as 17.21 mg/m<sup>3</sup> against the permit limit of 5 mg/m<sup>3</sup>.

The measures taken to prevent the incident recurring are reported as *"Maintenance plan deep dive required by Asset reliability engineering team to ensure a robust system is embedded to capture filter changes before end of life and improve visual inspection programme"*.

**Compliance: The above result is in exceedance of the emission limits set in the permit for A36 and in breach of condition 3.1.2. A non-compliance score of C3 against the criteria IR3A Emissions to water, air or land has been allocated to this breach for the January to March 2023 reporting period.**

**Action: Operator to submit a summary of the maintenance investigation outcomes to NRW.**

#### Quarter 2 (April to June 2023)

A Schedule 5 notification submitted to NRW on 19 May 2023 reported a release of carbon monoxide and nickel carbonyl from the Kiln Plant at site on 7 May 2023.

The Health and Safety Executive are investigating the event, which has been determined to not be a COMAH event requiring investigation by the COMAH competent authority (CA).

While the investigation relating to the Health and Safety aspects of the incident are covered by the Health and Safety Executive, the release is also in contravention of the Environmental Permitting (England & Wales) Regulations (EPR) permit. While this report notes the alleged EPR permit breaches, further detail relating to this incident will be covered in a separate CAR.

#### Quarter 4 (October to December 2023)

A Schedule 5 notification submitted to NRW on 23 November 2023 gives the measured annual NOx result for 2023 at A1 (Kiln Plant "Born" Heater) as 136.23 mg/m<sup>3</sup> against the permit limit of 100 mg/m<sup>3</sup>.

A Schedule 5 notification submitted to NRW on 23 November 2023 gives the measured annual NOx result for 2023 at A27 (Hydrogen Plant Reformer Furnace and Flue Gas Heaters) as 168.96 mg/m<sup>3</sup> against the permit limit of 100 mg/m<sup>3</sup>.

The measures taken to prevent the incident recurring at A1 (Kiln Plant "Born" Heater) are reported as *". . . identified in the production 5-year capital plan and programmed for an engineering project to undertake a design and scope for an upgraded burner system. The technical specification has been drafted for the design of the burner system and emission permit limits have been incorporated into the spec."*

The measures taken to prevent the incident recurring at A27 (Hydrogen Plant Reformer Furnace and Flue Gas Heaters) are reported as *"investigation is required to identify whether improved methods or advanced technologies can be applied/retrofitted to improve the emission points performance."*

**Compliance: The above results are in exceedance of the emission limits set in the permit for A1 and A27 and in breach of condition 3.1.2. A non-compliance score of C3 against the criteria IR3A Emissions to water, air or land has been allocated to each of these breaches for the October to December 2023 reporting period.**

**Action: Operator to submit a summary of the progress of the A1 burner upgrade project to NRW.**

**Action: Operator to submit a summary of the investigation to reduce NOx emission from A27 to NRW.**

A Schedule 5 notification submitted to NRW on 23 November 2023 gives the measured annual CO result for 2023 at A25 (Hydrogen Plant Vaporiser) as 17.27 mg/m<sup>3</sup> against the permit limit of 15 mg/m<sup>3</sup>.

The measures taken to prevent the incident recurring at A25 (Hydrogen Plant Vaporiser) are reported as *"investigation is required to identify whether improved methods or advanced technologies can be applied /retrofitted to improve the emission points performance."*

**Compliance: The above result is in exceedance of the emission limit set in the permit for A25 and in breach of condition 3.1.2. A non-compliance score of C3 against the criteria IR3A Emissions to water, air or land has been allocated to this breach for the October to December 2023 reporting period.**

**Action: Operator to submit a summary of the investigation to reduce CO emissions from A25 to NRW.**

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](mailto: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](mailto: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.