

Compliance Assessment Report CAR_NRW0041253

Permit being assessed: BL4567IZ.

For: Clydach Nickel Refinery, held by Vale Europe Limited

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

Type of assessment carried out: Check Monitoring/Sampling, Reason: Routine.
On 31/12/2022.

Parts of permit assessed: Monitoring Information

NRW Lead Officer: Gary Evans, accompanied by Lee Mills.

Report sent to: Richard De Filippo, Safety, Health & Environment on 17/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G2 - Monitoring and Records, Maintenance and Reporting - Records of activity, site diary/journal/events	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	
E1 - Emissions - Air	C3 Minor	3.1.2 (A1 NOx)
E1 - Emissions - Air	C3 Minor	3.1.2 (A28 NOx)
E1 - Emissions - Air	C3 Minor	3.1.2 (A78 dust)

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

Total number of non-compliances recorded	Total non-compliance score
3	12

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
E1	Improve operations	31/12/2023
E1	Improve operations	31/12/2023
E1	Improve operations	31/12/2023

Action 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.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

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

Introduction

This Compliance Assessment Report (CAR) is a written record of permit notifications in 2022 (Part A and Part B Notifications). Natural Resources Wales (NRW) were formally notified (Part A notification as required by permit conditions) of the following permit breaches. Please note water emissions are scored on CAR NRW 0041234.

Permit Notification 2022 03

Date and time of monitoring – 18 October - 21 October 2022

Emission point reference/source

A1 – Kiln Plant Born Heater

A26 – Hydrogen Plant Vaporiser

A28 – Hydrogen Plant Reformer Furnace and Flue Gas Heaters

A78 – Filtered extract from FMW offloading –conveyor system

Limits -

NOx - 100 mg/m3

CO – 15mg/m3

Dust - 5 mg/m3

Results -

A1 – NOx 153.95 mg/m3 **CCS Score 3**

A26 – CO 16.15 mg/m3

A28 – NOx 133.93 mg/m3 **CCS Score 3**

A78 – Dust 80.62 mg/m3 **CCS Score 3**

The above notification was not recorded as a permit breach and the company confirmed in Part B remedial actions: -

Further investigation has identified the following measures planned to be implemented to prevent a recurrence of this incident in future:-

- A1 & A2 – Kiln Plant Born Heaters – These are 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. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD).
- A25 & A26 – Hydrogen Plant Vaporiser – Further investigation is required to identify whether improved methods or advanced technologies can be applied /retrofitted to improve the emission points performance. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD).
- A27 & A28 - Hydrogen Plant Reformer Furnace and Flue Gas Heaters - Further investigation is required to identify whether improved methods or advanced technologies can be applied /retrofitted to improve the emission points performance. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD)
- A78 – Root Cause - Filter Failure on (Big Bag) revert hopper which led to dust in ducting pre-emission point. 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.
- Re-calibration of the dust probes and a review the bag failure pressure alarms at A78
- Emissions Contractor will be visiting site to re-analyse A78 the emission point following the corrective action that has been implemented to confirm the action has been effective.

Classification of the permit breach according to the NRW Compliance Classification Scheme (CCS) and EPR compliance.

Section 3 (3.1) of the environmental permit states:

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

NRW considers that permit condition 3.1.2 was breached in respect of the above sections and have been scored in accordance with the NRW Compliance Classification Scheme.

It is concluded that as a result of the above permit breaches the operator has received an NRW warning which is recorded on this CAR form. The resultant enforcement action of this warning reflects on the scale and potential environmental impact of the permit exceedances and importantly other factors such as no-intent, operator response / co-operation, and the corrective actions taken to prevent a reoccurrence.

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.

What are suspended scores?

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 and Waste action criteria (used in section 1 and 2):**A: Permitted activities**

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance 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 20 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 – 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.