

Compliance Assessment Report CAR_NRW0040217

Permit being assessed: BK3638IF.

For: Wrexham Aluminium Works EPR/BK3638IF, held by HYDRO ALUMINIUM DEESIDE LTD

At: BRIDGE ROAD WREXHAM INDUSTRIAL ESTATE , WREXHAM, WREXHAM, LL13 9SQ.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 30/06/2022.

Parts of permit assessed: See Below

NRW Lead Officer: Philip Harper.

Report sent to: Stuart Taylor, QHSE Manager on 22/12/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	Assessed (A)	
E3 - Emissions - Surface water	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3 Minor	3.5.1
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	4.3.2

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

Total number of non-compliances recorded	Total non-compliance score
2	8

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
G1	Send records demonstrating when the monitoring instruments were last serviced.	Already completed
G4	Ensure that Natural Resources Wales is notified of permit breaches in accordance with the permit.	Already completed

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.

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**Quarterly Monitoring of Results- Q2 (April – June), due 31st July 2022.**

Quarter 2 emissions monitoring return data for Hydro Aluminium Deeside Ltd, Bridge Road, Wrexham Industrial Estate, Wrexham, LL13 9SQ., permit no. BK3638IF was received by Natural Resources Wales on the 20th July 2022. This is in accordance with permit condition 4.2.3(a).

Emissions**E1 Air**

Emissions from the site's filtration plant are split between A1 and A12. Emission point A13 is associated with holding furnace and is separate to A1 and A12.

No exceedances of emission limit values were observed in data for A13.

Data for stack A1 has shown the following monthly maximum daily average values for particulate matter; 5.38 mg/m³, 8.18 mg/m³ and 4.10 mg/m³ compared to 1.46 mg/m³, 1.81 mg/m³ and 1.20 mg/m³ which were the maximum monthly values observed for A12. A1 values are greater than the permitted limit of 5 mg/m³.

Data for the average

On the 1st of July 2022 correspondence was received from Hydro highlighting that that a suspected instrument failure had occurred as the particulate values for A1 were irregular.

A report which satisfies Schedule 5 part B was submitted to Natural Resources Wales on the 13th September 2022. The report is shown below.

"Introduction

Hydro Aluminium Deeside, located within the Wrexham Industrial Estate, Wrexham, are a manufacturer of Aluminium Extrusion Billet.

The manufacturing process involves melting a mix of scrap and prime aluminium in a furnace. The emissions from the melting furnace are discharged from the emission points A1 and A12 (as shown in Figure 1). The emissions are discharged via a bag filtration plant. It should be noted that the emissions from A1 and A12 are both from the melting furnace.

The site operates under permit from Natural Resource Wales (Permit number EA/EPR/BK3638IF/V006). Under this permit there is a requirement to continuously monitor the level of particulates contained within the emissions, with a daily average limit of 5mg/m³.

During the months of April and May 2022 it was observed that the daily average particulate measurement for emission point A1 exceeded the 5mg/m³ limit (April 5.38mg/ m³ and May 8.18mg/ m³). It should be noted that emissions for points A12 and A13 remained typical for these periods.

Investigation

Filtration Media Integrity

Pressure indicators for the bag filtration plants were reviewed and found to be normal for this period,

indicating the filtration bags remained intact.

As a secondary check, a coloured dye was passed through the bag plant to confirm the integrity of the bag filters. All filter bags were confirmed to be intact.

Melting Process

During operation, process data is collected in the company APICS system. The process data from this period was reviewed and found to be within normal operation limits.

Scrap composition

The aluminium melts contain a mix of different grades of scrap aluminium, diluted with prime aluminium to offset the impurity level.

The scrap compositions used during this time were reviewed and found to be typical. **Environmental Investigation Report**

Particulate Measurement System

Particulate emissions are continuously measured by an Auburn 3600 system installed and maintained by the service provider Environmental Management Systems (EMS).

During this period, it was noted that the equipment was returning some irregular high readings and negative readings.

EMS completed a service on the equipment on the 13th June 2022 and were unable to identify the cause of the high and negative readings.

Their comments in relation to the irregular data:

"It does appear to have periods of negative values however I can't see anything within the program that would cause this suggesting that the negative values are being transmitted from the instrument itself which is via a digital communication protocol, Modbus TCP, I think we can discount any underreading that an analogue signal might display. I'd recommend for further investigation between the physical instruments and eDAS on site."

Following service, irregular data was no longer observed.

The system was upgraded on 01st of August to eDAS hub to offer improved stability and better functionality.

Emission data testing

As required under our permit to operate, 6 monthly testing is performed on the emissions from point A1. For this testing the service provider SOCOTEC were used. Dust emission testing from A1 was conducted on the 21-22nd June. The result of this test was 1.7mg/m³, which is within the limit of 5mg/m³.

Conclusion

It is the conclusion of this investigation that the likely cause for the high emission data reported in the months of April and May 2022 was due to equipment error.

Following a service of the equipment, reported data returned to normal which no more instances of high or negative data.

Actions taken:

- Service equipment to correct reporting error - Completed
- Take out service agreement with service provider (EMS) to improve level of support- Completed
- Upgrade to eDAS hub to offer better stability and functionality in the reporting system – Completed"

Natural Resources Wales is satisfied that the correct measures have been implemented to demonstrate that this was an instrumental failure rather than an actual breach of limit, therefore no score has been applied for category E1 air.

However, the report details that erratic data was observed through the months of April and May with EMS completing a service of the equipment on the 13th June 2022. Permit condition 3.5.1 states that "the operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit". Schedule 3 states that particulates will be monitored continuously at emission point A1. Natural Resources Wales is of the view that data derived from the period

when readings were erratic is not representative and cannot be regarded as continuous.

A **category 3** score has been applied in relation to permit condition 3.5.1. under category G1 for monitoring of emissions and environment.

The operator has now evidenced a service agreement with EMS.

Despite becoming aware of the issue in April, the site did not notify Natural Resources Wales until the 1st of July 2023.

Permit condition 4.3.1.b states that “in the event of a breach of any permit condition the operator must immediately— (i) inform Natural Resources Wales, and (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;”

Further to this permit condition 4.3.2. states that “Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.”

Part A of schedule 5 requires that breaches of permit conditions are notified within 24 hours.

A **category 3** score has been applied in relation to permit condition 4.3.2. under category G4 for reporting and notification to Natural Resources Wales.

Action:

1. Send records which demonstrate when monitoring instruments for particulates were last serviced by the **31st January 2023**.
2. Ensure that Natural Resources Wales is notified of permit breaches in accordance with the permit.

E2 Surface Water

No exceedances of emission limit values were observed in data for W1.

Kind Regards

Phil Harper

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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.