

Compliance Assessment Report CAR_NRW0043493

Permit being assessed: EP3738NG.

For: Bridgend Paper Mill EPR/EP3738NG, **held by:** WEPA UK Ltd

At: BRIDGEND PAPER MILLS , LLANGYNWYD, MAESTEG, MAESTEG, MID GLAMORGAN, CF34 9RS.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 31/12/2023.

Parts of permit assessed: Emissions, monitoring and waste.

NRW Lead Officer: Antony Leakey.

Report sent to: Richard Lewis, Energy & Environment Manager, on 16/02/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1C - Management - Energy Efficiency	Assessed (A)	
IR3A - Emissions and monitoring - Emissions to water, air or land	Assessed (A)	
IR1D - Management - Efficient use of raw materials	Assessed (A)	
IR1E - Management - Avoidance, recovery and disposal of wastes produced by the activities	Assessed (A)	
IR4B - Information - Reporting	Assessed (A)	

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?

No action required.

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

Bridgend Paper Mill

Emissions and reporting review and update – 31 December 2023

Summary of previous CAR action status			
Permit condition	Action summary	Due date	Action status
n/a	Paper sludge pH implications	Complete	Complete
1.1.1	Provide an update on wet NOx control installation progress.	31/12/22	Superseded by CHP decommissioning proposals
n/a	GT supplementary firing	Complete	Complete
n/a	Improve Neptune Hood Exhaust NOx control.	Ongoing	Ongoing
n/a	Consider the need for review of effluent metals bioavailability	Ongoing	Ongoing
n/a	Check metal concentration and energy usage units and update reports if necessary.	Ongoing	Ongoing

Eel Regulation compliance proposals

Abstraction screen performance is reported to be good. Installation of dedicated boiler feedwater provision will allow 100% recycle of the paper machine water circuits. The limiting factor on water cycle is currently boiler feed total dissolved solids quality and protection of Neptune water circuits.

ACTION: WEPA to provide an update on progress with boiler feedwater supply and Neptune improvements at next compliance meeting.

CHP GT NOx emissions – Improvement Condition ref. IC9 Update

A high-voltage breaker power supply failure due to inadvertent isolation of the battery charging system supply has resulted in catastrophic damage to GT2 when grid power fed back through the breaker after a power outage tripped the CHP. There were no alarms to

detect HV breaker power supply failure and the weekly check on the battery did not identify any issues.

High-voltage circuit breaker power supply batteries are crucial for providing backup power in case of a power failure or as an energy source for trip and close operations in certain types of circuit breakers. Like any other battery-powered system, these batteries can encounter various problems that may affect their performance and reliability. To mitigate potential problems with high-voltage circuit breaker power supply batteries, it is essential to follow appropriate maintenance practices, adhere to manufacturer guidelines, and regularly monitor battery performance. Scheduled inspections, testing, provision of alarm systems and replacement of batteries nearing the end of their useful life can help ensure the reliability of the backup power system and minimise the risk of unexpected failures.

Consequently, GT2 wet NO_x control upgrade will not be completed, and the only compatible replacement hire GT could not be retrofitted with wet NO_x control.

Re-adoption of supplementary firing into the gas turbine exhaust ducts to boost steam production is not being taken forward.

A new standalone GT/HRSG unit was to be procured with dry low NO_x technology and have 20% hydrogen capability.

However, following implementation of the UK Government British Industry Supercharger (BIS) scheme WEPA now propose to install new package boilers replacing the CHP, which will be decommissioned.

A variation application is required for any new plant and an energy efficiency BAT case will need to be made to justify moving away from current BAT which is CHP. The BAT case may also be able to justify the CHP closure on the carbon intensity and local air quality benefits as well as the BIS influence on the economics of CHP.

However, successful, and efficient decarbonisation requires system level considerations when selecting local solutions, so that energy conversion inefficiencies are minimised. New fossil fuel use should be thermodynamically appropriate and minimised to reduce lock-in of carbon emissions. This means that energy efficiency, heat integration and electrification of heat should be explored rigorously before new fossil fuel use can be justified.

The existing energy efficiency Bref and economic evaluation Bref documents may be a useful basis for rigorous assessment of new developments intending to use fossil fuel for heat provision.

Previous non-compliance with permit condition 1.1.1 (management of processes in accordance with BAT to minimise emissions) was resolved pending completion of wet NO_x control on both GTs to allow continuous operation of both units to supply the new paper machine (IC9). The further delay during and beyond 2023 for GT NO_x control may constitute continued non-compliance with permit condition 1.1.1 depending upon determination of proposals to decommission the CHP.

Waste review

WEPA proposes to import broke to supplement site derived material. This will require a variation, including a revised fire prevention and management plan, under the new application charging scheme.

ACTION: WEPA to provide an update on proposals and variation application at next compliance meeting.

Emissions review

The mill has operated normally during 2023, although the commissioning of the new Neptune paper machine is not yet complete.

2022 sludge analysis – the reduced pH is reported to be within specification for use as cattle bedding.

Monitoring data and annual performance indicators for 2023 and the annual report for 2023 (condition 4.2.2 compliance) has been reviewed and no breach of permit conditions was identified.

Water consumption appears to have deteriorated significantly on the Jupiter machine and improvement projects are proposed during 2024.

ACTION: WEPA to provide an update on proposed improvement projects and confirm that a variation is not required at next compliance meeting.

All emissions and reporting are compliant with the permit requirements.

END

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.