

Compliance Assessment Report CAR_NRW0037135

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 carried out: Report/Data Review, Reason: Routine.

On 13/11/2020.

Parts of permit assessed: Monitoring, emissions, waste

NRW Lead Officer: Antony Leakey.

Report sent to: Steve Barwick, Health, Safety & Environment Manager on 13/11/2020.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor (Suspended)	1.1.1
E1 - Emissions - Air	Assessed (A)	
E3 - Emissions - Surface water	Assessed (A)	
E5 - Emissions - Waste	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	

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

Total number of non-compliances recorded	Total non-compliance score
1	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
B1	WEPA will install wet NOx control for both gas turbine machines and review BAT for the shell boiler.	01/06/2021

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**Bridgend Paper Mill****Emissions and reporting review and update – 13 November 2020**Eel Regulation compliance proposals

Details of the screening proposals and consultant reports were reviewed by NRW fisheries specialists and advise the following:

- The proposed intake velocity of 25cm/s and 2mm mesh are appropriate.
- There are other providers of travelling screen equipment in addition to those WEPA have explored and seeking further specifications and costs for comparison may be appropriate.
- Available depth at the mill location should be checked with any proposed supplier in detail to ensure that there is sufficient available for a particular travelling screen option.
- Seek a performance guarantee if possible and details of successful deployments in similar settings.
- Periodic operation of screens is recommended even during periods when abstraction is not taking place to ensure that fouling does not accumulate.

NRW cannot recommend a supplier or solution for your situation but can confirm that any option that achieves the required intake velocity with the necessary mesh aperture will be acceptable.

The abstraction weir includes a notch in the centre of the weir providing an eel/fish passage means. This is reported to retain a good flow under very dry (low river flow conditions) and so further work on eel/fish passage may not be necessary. However, WEPA should seek advice from their consultants on the potential benefits of installing an eel ladder/brush or similar on the retaining walls of the river section.

ACTION: WEPA to provide an update on progress with eel screening progress at next compliance meeting.

CHP GT NO_x emissions

NRW understands that the gas turbines are no longer configured to allow supplementary firing and there are no plans for SF to be reinstated. WEPA should note that if this position changes it is likely to result in the GT/HRSG units becoming a Large Combustion Plant subject to the IED Chapter III minimum standards and the LCP Bref.

Decommissioning of SF has not been verified on site.

Current 250 mg NO_x/m³ ELVs are well above expected emissions performance for a CHP.

WEPA has confirmed that the following points are understood:

- MCPD only sets minimum standards at EPR installations (including paper mills) subject to IED Article 11 BAT requirements and does not set the performance benchmark or deadline in this case.
- Bridgend paper mill is subject to BAT for all activities, including the CHP boiler and GTs.
- A BAT review of the CHP needs to be undertaken as emissions are currently well above NO_x BAT levels associated with available techniques (wet or dry NO_x control).
- There is flexibility when considering BAT for GTs that are not Large Combustion Plant subject to the LCP Bref, so BAT for NO_x could be as low as 50-60 mg/m³ (NOT ppm), i.e. use of Dry Low NO_x control, but for CHP applications with existing plant there is recognition that wet abatement may only be available for certain makes/models and NO_x emissions of 75-80 mg/m³ (NOT ppm) are achievable.
- Where there is choice of technology, as there is with the Solar GT units, then a cost-benefit assessment may be appropriate to determine BAT.

WEPA has confirmed that the company will invest now in wet NO_x control for both machines for a short-term (4-5 year) period and accept the need review DLN installation on both machines after that, at additional cost, if appropriate in the future.

As currently configured wet NO_x control is likely to represent BAT for the GTs as long as emissions can be reduced to around 75-85 mg/m³.

WEPA should also note that the CHP boiler should also be subject to a BAT review for NO_x emissions, with indicative BAT in the region of 100-110 mg/m³. Current reported performance indicates that this is already being achieved, although it is unclear if this is at full load.

As permit condition 1.1.1 requires the WEPA EMS to minimise risks of pollution and a BAT review for CHP NO_x control had not been undertaken, NRW considers this a minor category 3 non-compliance. This non-compliance will be suspended because an improvement plan has been agreed.

ACTION: WEPA to provide an update on progress with GT NO_x emissions reduction and boiler NO_x emissions review at next compliance meeting.

NO_x mass emissions calculations for PR-TR reporting were reviewed and are based upon spot measurement of flue gas flow rate taken during stack concentration testing.

On checking the 2018 figure, it seems too low for the rating of the GT, unless the GT was running all year at part load.

The GT flue gas flow rate should be around 50,000 m³/hour at full load corrected to standard conditions, the WEPA calculation uses flue gas flows that suggest the unit was running at 50-60% load all year, is this the case?

Fuel flow data and flue gas factors may provide a better estimate of flue gas volume for

calculating annual mass emissions.

Total annual fuel gas usage can be used to derive an annual total flue gas volume and use that value to calculate the mass emissions if you do not have hourly/continuous fuel flow data.

Flue gas fuel factors are defined in Annex E of EN ISO 16911-1 Stationary Source Emissions - Manual and automatic determination of velocity and flow rate in ducts – Part 1 Manual reference methods.

The fuel factor for gas turbines firing natural gas is 0.845 m³/MJ at 273 K, 101.325 kPa and 15% oxygen.

The fuel factor for boilers and the paper m/c hood exhaust (assuming that measured concentrations for the latter are reported at 3% oxygen) firing natural gas is 0.280 m³/MJ at 273 K, 101.325 kPa and 3% oxygen.

WEPA should investigate this and provide confirmation that the 2018 NO_x mass release of 74 tonnes, including 58 tonnes for the GT, is correct and explain why the GT flue gas flow was low.

ACTION: WEPA to provide an update on NO_x mass emissions estimation at next compliance meeting.

Waste review

Paper sludge is reported as being sent for disposal via animal bedding (being used under a U8 exemption), but some is reported as direct land spreading.

Waste sludge from the papermill can be used as animal bedding (under a U8 exemption) but it would need a mobile plant permit deployment to be spread directly. The animal bedding would need to be fully composted with farmyard manure before being applied to land under a U10 waste exemption.

NRW is not aware of any mobile plant permit deployment applications in Wales.

WEPA has a duty of care to ensure that wastes arising at the mill are properly and legally disposed. Has WEPA undertaken audits or checks to ensure that direct land spreading of paper sludge is being undertaken legally and that correct waste coding is being used?

ACTION: WEPA to review compliance with direct land spreading legal requirements and provide an update at next compliance meeting.

Emissions review

The mill has operated with improved reliability and output exceeded demand during 2019, resulting in reduced operations for a prolonged period.

2019 sludge analysis – total carbon for Q1 and Q2 2019 is reported at over 100%.

ACTION: WEPA to clarify if total carbon data are correct.

Monitoring data for 2019, 2019 annual performance indicators and the annual report for 2019 (condition 4.2.2 compliance) has been reviewed and no breach of permit conditions was identified.

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.

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.