Compliance Assessment Report CAR_NRW0038321

Permit being assessed: BT4885IT. For: Shotton Paper Mill EPR/BT4885IT, held by Shotton Mill Limited At: WEIGHBRIDGE ROAD SHOTTON , DEESIDE, DEESIDE, CLWYD, CH5 2LL. **Type of assessment carried out:** Report/Data Review, Reason: Routine. On 20/12/2021. Parts of permit assessed: Routine Emissions Monitoring **NRW Lead Officer:** Stuart Ross. **Report sent to**: Andrew Bronnert, Head of Energy & Operational Support on 21/12/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
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	C4 No impact	4.2.3
E1 - Emissions - Air	C3 Minor	3.1.2
E3 - Emissions - Surface water	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
2	4.1

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
G4	Refer details section	31/01/2022
E1	Refer details section	31/01/2022

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

This Compliance Assessment Report follows a review of routine emissions monitoring returns for the period 01/01/21 - 30/09/21.

Other than those detailed below, no emission limit exceedances were recorded for emissions to air, surface water or emission point E1 (incinerator transfer to effluent plant).

Boiler 7 Ash analysis and site performance parameters (form Performance 2) submitted - no issues noted.

Boiler 7 six monthly extractive monitoring report was received late in breach of permit condition 4.2.3 CCS4.

Action 1 - Ensure monitoring returns are submitted in accordance with the permit.

Abnormal Operation and Invalid Data

April 2021

It was reported that on 28th and 29th, routine CEMS maintenance was carried out with 6 invalid averages reported, 2 hours on 28th and 4 hours on 29th. Based on the supporting information provided this is incorrect as invalid averages should be counted in half hourly not hourly periods. Therefore you should record 4 invalid averages on 28th and 8 on 29th.

Additionally, and in accordance with permit condition 3.3.5 (d) if you record more than 5 invalid half hourly averages (as per 29th April) the daily average itself becomes invalid and this should be recorded. Permit condition 3.3.5(e) allows you to have 10 invalid days per year to allow for planned CEMS maintenance, beyond which you would be in breach of permit.

Action 2 - Amend the monthly reporting form as per comments above to accurately record the number of invalid half hourly results and resubmit to NRW by 31/01/22

May

It was reported that on 14/05/21 a CEMS fault resulted in 'two invalid averages'. As per the comment above was this in fact 4 invalid half hourly averages?

As the time relates to a fault with the CEM (not routine maintenance) and if waste continued to be fed then a period of 'abnormal operation' may have occurred and should have been recorded.

Action 3 - Confirm whether waste continue to be fed during the CEMs fault and if so was this period was recorded as abnormal operation? Please do so by 31/01/22.

July

It was reported that the FTIR and FID CEMS were off line 19/07/21 between 10:09 and 13:26 for routine maintenance / revalidation.

Action 4 - This planned maintenance equates to 7 invalid half hourly averages. It is noted that half hourly monitoring data has not been supplied for this calendar day outside of this maintenance period whilst the plant was in operation - this must be supplied.

As more then 5 half hourly values are invalid, the daily averages should be reported but marked as invalid. The day shall be recorded as invalid, you can have up to a maximum of 10 invalid days per year.

Amend the monthly reporting form to include all CEMS data during the effective operating period and as per the other comments above and resubmit to NRW by 31/01/22.

August

It was reported that no emissions data is provided for 19th and 20th August due to a site power outage after a problem on the incoming 132 kV power line causing a total loss of power to site. This resulted in unplanned shutdown of all equipment, including the CHP.

A specialist contractor attended site and returned power on the evening of the 19th. This allowed Boiler 7 start-up on the 20th into the evening. Solid fuel was re-established with the boiler online by 21:30 on the night of the 20th.

Action 5 - On these dates all valid half hourly data collected must be reported, if less than 43 half hourly values were collected 19/08/21 (and certainly 20/08/21) then this should be explained on the report and the daily average data is not reportable.

Please note this is not an invalid day because the reason for the lack of half hourly averages is due to insufficient operating time during the calendar day rather then due to planned CEMS maintenance.

Amend the reporting form as per comments above and resubmit to NRW by 31/01/22.

Action 6 - clarify the reason for the power failure and any action taken to prevent a recurrence. Please confirm what provision if any is in place to shutdown the incinerator in a controlled fashion in such scenarios. Please do so by 31/01/22

September

26/09/21 at 09:30-10:00, CO emission recorded at 135.2 mg/Nm3 (half hourly ELV 100 mg/Nm3)

It is reported that this was during initial plant start-up following the planned outage and the trend shows that during the emission period no solid fuel (waste) was being conveyed to the furnace. The boiler was on gas-firing only. The plant was in start up and therefore this is not a breach of permit.

Emission Limit Exceedances

1. 27/09/21 at 06:30 - 07:00, CO emission recorded at 157.4 mg/Nm3

It is reported that this occurrence was after the 30 minute period immediately following an 11kv generator fault which tripped the HP turbine. Data trends show that during the exceedance, solid fuel (waste) was not being conveyed to the boiler, it was on gas firing only.

Whilst during part of the period gas was being fired it is considered that the source of elevated CO is a result of the incomplete combustion of waste materials on the fluidised bed.

Action 7 - Investigate the root cause of the generator fault and detail measures taken to prevent a recurrence. Provide an explanation as to why this type of fault causes a disturbance to the incineration process that leads to an associated emission limit exceedance. Please do so by 31/01/22.

2. 27/09/21 at 19:30 - 20:00, CO emission recorded at 338.3 mg/Nm3

It was reported that following a boiler safety interlock 20:30:59, all solid fuel (waste) and gas firing was forced off and unburnt fuel remained on the sand bed due to the sudden loss of fluidisation.

The CO measurement remained high until the furnace could be purged following the safety interlock. Once purged, gas firing re-commenced at 20:51. Solid fuel (waste) was re-established to the furnace at 20:56 and the CO measurement immediately began to decrease but because of the high readings during the initial 10 minutes of the half hour period a value of 338.3mg/Nm3 was recorded for the reporting interval.

3. 28/09/21 at 23:30 - 00:00, CO emission recorded at 129.1.3 mg/Nm3

It was reported that the boiler safety interlock activated at 00:50:23 in response to low oxygen content in the flu gas. All solid fuel (waste) and gas firing was forced off unburnt fuel remained on the sand bed

Following a purge sequence to allow re-start, solid fuel was re-established by 00:58 but the CO content at the stack was again high following the interlock period.

Action 8 - Investigate the root cause of the boiler safety interlocks detailed above and the measures taken to prevent a recurrence. Explain why low flu gas oxygen leads to a boiler interlock. Please do so by 31/01/22.

The above CO emission limit exceedance are in breach of permit condition 3.1.2 and attract a consolidated CCS score of 3.

Notifications

CO emission breaches on 27 and 28 September were reported to NRW with the monitoring returns and not via a Schedule 5 notification as required by permit condition

4.3.1. This breach of permit attracts a CCS score of 4.

Action 9 - Ensure breaches of emission limit values are reported to NRW in accordance with permit condition 4.3.1. With immediate effect.

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.