

Compliance Assessment Report CAR_NRW0042495

Permit being assessed: DP3333TA.

For: Pembroke Power Station , **held by:** RWE Generation UK plc

At: Pembroke Power Station , Pembroke, PEMBROKE, Dyfed, SA71 5SS.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 22/09/2023.

Parts of permit assessed: Emissions and Monitoring, Information.

NRW Lead Officer: Alex Bowder, accompanied by Rhydian Cox.

Report sent to: Daniel McDermott, Regulations Support Engineer, on 22/09/2023.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A - Emissions and monitoring - Emissions to water, air or land	C3 Minor	3.1.2 - the limits given in schedule 3 shall not be exceeded
IR3E - Emissions and monitoring - Monitoring	Assessed (A)	
IR4B - Information - Reporting	Assessed (A)	
IR4C - Information - Notification	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
1	4

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
IR3A	Please ensure that control measures are looked at and implemented to prevent reoccurrence of flow surges and subsequent increases in maximum flow beyond permitted levels.	Already completed

Compliance 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

This Compliance Assessment Report (CAR) has been issued in response to the submission of the Q2 (April - June) 2023 monitoring returns by Pembroke Power Station for activities at West Pennar, Pembroke, Pembrokeshire, SA71 5SS under permit number EPR-DP3333TA.

Q2 2023 Monitoring Returns

Releases to water - Water 1 (10/11/11)

The returns for reporting of sampling and analysis of emissions to water (other than sewer) for Q2 2023 were submitted on 13 July 2023.

This data was sent within the reporting period, which is **compliant** with permit condition 4.2.3.

Schedule 5 Part A Notification - 20 June 2023

This notification details monitoring readings exceeding the maximum flow at W1. Details from the submission has been partially copied below:

Emission point reference	W1
Parameter(s)	Flow
Limit	40 m ³ /s
Measured value and uncertainty	40.56m ³ /s +/- 8% Uncertainty
Date and time of monitoring	17:35 19/06/2023
Measures taken, or intended to be taken, to stop the emission	When reaching a total combined flow of 39.5 m³/s, each of the 5 units automatically defaulted to flow set points of 7.8m³/s per unit, equating to max cooling water flow of 39 m³/s. The cause of breach has initially been identified to biological debris causing a small build up in pressure and subsequent release creating a slight surge in flow. Although the automatic flow reduction measures were taken, a lag time between reduction in throttle and flow reduction resulted in of approximately 51 seconds above 40 m³/s. An incident investigation has been initiated to establish root cause and appropriate preventative action when recommissioning cooling water pumps.

The operator provided a comprehensive timeline of the 19 June event and its response:

- 17:31 - Unit 31's second cooling water pump brought back into service (also meant bringing 10/10 Cooling Water pumps on)
- Pressure build-up and eventual release of some biological debris induced a slight surge in flow
- 17:34 - Max flow trigger of 39.5m³/s, units reverted to set points of 7.8 m³/s and in theory reducing total combined flow to 39.0m³/s
- Lag from reducing throttle on pumps to seeing a flow reduction
- 17:35 - Exceeded 40 m³/s for 51 seconds with peak flow measured at 40.559 m³/s (hourly average flow for 17:00-18:00 was 36.67 m³/s).

Permit emission limits - Table S3.2 point source emissions to water dictates, that:

The maximum flow shall not exceed: 40 m³ per second

Whilst the limit exceedance was brief and the operator promptly provided justification, the event has still breached permit condition 3.1.2 *Emissions and monitoring*.

In accordance with NRW's compliance scoring guidance, a non-compliance score of **C3** has been recorded against sub-criteria IR3A.

C3 PERMIT BREACH IR3A - Emissions and monitoring - Emissions to water, air, or land
Emissions and monitoring, condition 3.1.2: <i>"The limits given in schedule 3 shall not be exceeded"</i>

(C3 - potential to have a minor or minimal impact or effect on the environment, people and/or property)

The operator has provided detailed reasoning behind the root cause of the event. The occurrence was immediately acted upon and investigated, with interim measures discussed to address the issue. This involved potentially setting unit flows to lower set points when commissioning cooling water pumps, to compensate for any potential debris releases/surges in flow and reduction in throttle.

Action

Please ensure that control measures are looked at and implemented to prevent reoccurrence of flow surges and subsequent increases in maximum flow beyond permitted levels. There is no further action required ahead of this.

Based on the reports submitted by the operator, all other emissions at the monitoring points appear **compliant** with the specified emission limits over the Q2 reporting period.

Releases to air - IED/LCPBREF CON2 (Gas turbines)

This data was submitted on 13 July 2023 for LCP286, LCP382, LCP383, LCP384, and LCP385.

This data was sent within the reporting period, which is **compliant** with permit condition 4.2.3.

Emissions at the monitoring points for Nitrous Oxide (NO_x) and Carbon Monoxide (CO) appear **compliant** with the site's specified emission limits over the Q2 reporting period.

If you have any issues with this report, please contact Senior Regulation Officer Alex BOWDER at Alex.Bowder@cyfoethnaturiolcymru.gov.uk.

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.