

Compliance Assessment Report CAR_NRW0038489

Permit being assessed: DP3137EG.

For: Margam Green Energy Plant EPR/DP3137EG, held by Margam Green Energy Ltd
At: Margam Green Energy Plant Land off Longlands Lane , Neath Port Talbot, SA13 2NR.

Type of assessment carried out: Audit, Reason: Other.

On 09/07/2021.

Parts of permit assessed: Please see details

NRW Lead Officer: Ieuan Davies.

Report sent to: Paul Fitzsimmons, General Manager (MGEL) on 12/07/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	C3 Minor	3.1.2 - the limits given in Schedule 3 (CO) shall not be exceeded.
E1 - Emissions - Air	C3 Minor	3.1.2 - the limits given in Schedule 3 (TOC) shall not be exceeded.

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
E1	Operator adjusted plant parameters to return emissions to normal levels	Already completed
E1	Operator adjusted plant parameters to return emissions to normal levels	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

Introductions

This is a review of Margam Green Energy Limited (known hereafter as The Operator) Schedule 5 submissions for Quarter 2 2021.

Background on Permit Requirements

Condition 3.5.1 of the Operators permit states:

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:

a. Point source emissions specified in tables S3.1, S3.2 and S3.3.

The following table is a part of *Schedule 3 Emissions and monitoring* extracted from the Operators environmental permit:

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 (65m Stack – shown on site plan in Schedule 7)	Particulate matter	Cleaned exhaust gases from combustion furnace	45 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Particulate matter		15 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Total Organic Carbon (TOC)		30 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Total Organic Carbon (TOC)		15 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Hydrogen chloride		90 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Hydrogen chloride		15 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Hydrogen fluoride		6 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Hydrogen fluoride		1.5 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Carbon monoxide		150 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Carbon monoxide		75 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Sulphur dioxide		300 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Sulphur dioxide		75 mg/m ³	daily average	Continuous measurement	BS EN 14181
	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)		600 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)		300 mg/m ³	daily average	Continuous measurement	BS EN 14181

Schedule 3 – Emissions and monitoring above details Emission Limit Values (ELVs) monitored via Continuous measurement (CEMS). To maintain compliance with the Operators environmental permit (DP3137EG) the ELVs specified above shall not be exceeded as stated in condition 3.1.2 - *the limits given in Schedule 3 shall not be exceeded.*

In accordance with the Operators environmental permit, Natural Resources Wales (NRW) must be notified of all permit breaches as per the following condition/s:

4.3.1 The Operator shall,

a. 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;*

4.3.2 Any information provided under condition 4.3.1(a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

Schedule 5 submissions

The Operator submitted Schedule 5 forms between the dates of 7th April 2021 and 19th June 2021 for the breach of CO Half hourly average ELV. The ELV for CO half hourly average is 150mg/m³ with breaches appear to be ranging between 150.3mg/m³ and 416.1mg/m³. The operator on the 19th June 2021 submitted a Schedule 5 form for a breach of TOC Half Hourly Average ELV. The ELV for TOC Half hourly Average is 30mg/m³ with the breach appearing to be 279.8mg/m³. As per Compliance Classification Scheme (CCS) the CO and TOC breaches will be consolidated per quarter. A CCS score of 3 has been attributed to the CO failure covering the Quarter 2 reporting period. A CCS score of 3 has been attributed to the TOC failure covering the Quarter 2 reporting period.

Discussion

Review of emission returns of Incinerator Bottom Ash (IBA) during 2019 and 2020 highlighted peaks in levels of Total Organic Carbon (TOC). Discussions can be found in CAR_NRW0036890.

High levels of TOC in bottom ash is often influenced by the residence time of the material being processed and moisture content of the waste feed – but generally comes down to combustion control. The Operator stated work had been undertaken to improve incoming recycled woodchip fuel quality and improvements to stabilising combustion parameters when fuel is on the grate.

The Operator continued this work in 2021 with a grate replacement being installed in March 2021 to give improved control of air flow above and below said grate owing to a more complete combustion. Following on from the installation of the replacement grate, the combustion trimming project has commenced. The combustion control project encompasses the management of fuel to air ratio within the plant to ensure effective combustion and efficient use of raw materials. The fuel to air ratio fluctuates during normal operation with delivery of air continually monitored to take account of ambient temperature changes resulting in air density variations. The Inspector would envisage combustion efficiency to pose seasonal challenges with a larger variation in ambient temperature and potentially higher moisture content of processed materials and would welcome discussions with the Operator on ensuring compliance over the winter period. The permit breaches reported during Quarter 2 would appear to be as a result of the combustion control project with all breaches brought back into compliance within the half hourly reporting period. The Operator has stated the ongoing combustion control project aims to improve the boiler efficiency and improve compliance with the Operators environmental permit taking account of air emissions, the quality of waste produced as IBA and ensuring efficient use of raw materials. At conclusion of the project, the Inspector would welcome a discussion detailing findings.

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.