

## Compliance Assessment Report CAR\_NRW0039417

**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:** Check Monitoring/Sampling, Reason: Routine.  
On 31/12/2021.

Parts of permit assessed: Please see details

**NRW Lead Officer:** Ieuan Davies.

**Report sent to:** Paul Fitzsimmons, General Manager (MGEL) on 17/02/2022.

### 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.
E5 - Emissions - Waste	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	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	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	The facility to undertake a full overhaul of site critical VSD units, scheduled for the next planned outage. Certify adequate training and support is provided to ensure all relevant staff are able to manage and control plant operations before an emission breach is detected.	31/03/2022
E1	The facility to undertake a full overhaul of site critical VSD units, scheduled for the next planned outage. Certify adequate training and support is provided to ensure all relevant staff are able to manage and control plant operations	31/03/2022

Criteria	Action needed	Complete by
	before an emission breach is detected.	

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

#### **Introduction**

This is a part review of Margam Green Energy Limited (known hereafter as The Operator) monitoring submissions made by the operator in 2021.

#### **Waste Quarterly Returns as required by condition 4.2.5**

- The Q1 (January to March 2021) submissions included the results for all quarterly parameters required over this period.
- The Q2 (April to June 2021) submissions included the results for all quarterly parameters required over this period.
- The Q3 (July to Sep 2021) submissions included the results for all quarterly parameters required over this period.
- The Q4 (Oct to Dec 2021) submissions included the results for all quarterly parameters required over this period.

#### **Point Source Emissions to Air Parameters (Air 1 Form) as required by condition 3.5.1 (a)**

- The Q1 (January to March 2021) submissions included the results for all quarterly parameters required over this period. Margam Green Energy continued to report and submit monthly Emissions to Air during this quarter. Following agreement from NRW subsequent Quarters were to be submitted quarterly other than notifications via Schedule 5 if a breach had occurred.
- The Q2 (April to June 2021) submissions included the results for all quarterly parameters required over this period. Previous discussion regarding monitoring results at emission point A1 during Q2 can be found within CAR\_NRW0038489.
- The Q3 (July to Sep 2021) submissions included the results for all quarterly parameters required over this period. Previous discussion regarding monitoring results at emission point A1 during Q3 can be found within CAR\_NRW0038969.
- The Q4 (Oct to Dec 2021) submissions included the results for all quarterly parameters required over this period. Please see discussion of Schedule 5 submission made by Margam Green Energy under section Schedule 5 submissions - Q4 within this CAR Form.

#### **Point Source Emissions to Air Parameters (Air 2 Form Extractive) as required by condition 3.5.1 (a)**

- The Operator is required to submit biannual period monitoring of certain parameters within

Table S3.1.

- Quarters 1 & 2 (January to June 2021) submissions included the results for all parameters required over this period and appear to be compliant with limits specified within the Operators Environmental Permit.
- Quarters 3 & 4 (July to December 2021) submissions included the results for all parameters required over this period and appear to be compliant with limits specified within the Operators Environmental Permit.

#### **Residue Quality as required by condition 3.5.1 (c)**

- The Q1 (January to March 2021) submissions included the results for all quarterly parameters required over this period. The Operator continued to report and submit monthly Residue Quality during this quarter. Following agreement from NRW subsequent Quarters were to be submitted quarterly other than notifications via Schedule 5 if a breach had occurred.
- The Q2 (April to June 2021) submissions included the results for all quarterly parameters required over this period and appear to be compliant with limits specified within the Operators Environmental Permit.
- The Q3 (July to September 2021) submissions included the results for all quarterly parameters required over this period and appear to be compliant with limits specified within the Operators Environmental Permit.
- The Q4 (October to December 2021) submissions included the results for all quarterly parameters required over this period and appear to be compliant with limits specified within the Operators Environmental Permit.

#### **Annual Production / Treatment as required by condition 4.2.2 (b)**

The annual production / treatment data specified within Table S4.2 was also received and acknowledged.

#### **Schedule 5 Submissions – Q4**

##### 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:

**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 <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Particulate matter		15 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Total Organic Carbon (TOC)		30 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Total Organic Carbon (TOC)		15 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Hydrogen chloride		90 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Hydrogen chloride		15 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Hydrogen fluoride		6 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Hydrogen fluoride		1.5 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Carbon monoxide		150 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Carbon monoxide		75 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Sulphur dioxide		300 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Sulphur dioxide		75 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )		600 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181
	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )		300 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181
	Cadmium & thallium and their compounds (total)		0.05 mg/m <sup>3</sup>	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 14385

*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 for CO half hourly ELV breaches on the 19<sup>th</sup> October 2021, 24<sup>th</sup> October 2021, 31<sup>st</sup> October 2021 & 9<sup>th</sup> November 2021. The ELV for CO half hourly average is 150mg/m<sup>3</sup> with breaches appear to be ranging between 156.5mg/m<sup>3</sup> and 493.2mg/m<sup>3</sup>. The operator submitted a Schedule 5 form for a breach of TOC Half Hourly Average ELV for the 24<sup>th</sup> October 2021. The ELV for TOC Half hourly Average is 30mg/m<sup>3</sup> with the breach appearing to be 32.9mg/m<sup>3</sup>. 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 2021 Quarter 4 reporting period. A CCS score of 3 has been attributed to the TOC failure covering the 2021 Quarter 4 reporting period.

#### Discussion

The Operator has conducted root cause analysis into all reported breaches. The Operators root cause analysis is outlined within Schedule 5 Part B notifications and can be found in the following,

recorded by date of emission breach:

19<sup>th</sup> October 2021: Plant tripped following an electrical component (VSD) failure. Further investigation found that the plant tripped following an electrical fault on a variable speed drive unit capacitor. Repairs completed on the failed VSD unit, to further enhance reliability and reduce the risk of future plant trips a full overhaul of site critical VSD units is scheduled for the next planned outage.

24<sup>th</sup> October 2021: Further investigation found that the exceedance occurred during the start up period following the failed VSD issue. Operating procedures have been reviewed and toolbox talks have been given to the Operation teams to reduce the risks of further breaches. Adjustments made to plant to restore emission levels to normal.

31<sup>st</sup> October 2021: Plant responded to technical fault outside of its control on the Western Power network.

9<sup>th</sup> November 2021: Toolbox talks with operations team conducted to raise awareness of actions in the event of emission breaches. Adjustments made to plant parameters to bring emission levels back to normal.

NRW acknowledges the root cause analysis process undertaken and will discuss with the Operator at the next opportunity.

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](mailto: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](mailto: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.