

Compliance Assessment Report CAR_NRW0038923

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: Report/Data Review, Reason: Other.

On 10/11/2021.

Parts of permit assessed: 2.4.1 Improvement Conditions

NRW Lead Officer: Ieuan Davies.

Report sent to: Paul Fitzsimmons, General Manager (MGEL) on 12/11/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	
B1 - Infrastructure - Engineering for prevention and control of emissions	Assessed (A)	
C2 - General Management - Management system and operating procedures	Assessed (A)	
E1 - Emissions - Air	Assessed (A)	
F2 - Amenity - Noise	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
0	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?

No action required.

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 CAR has been produced to close out the following Improvement Conditions (ICs) associated with the commissioning of the Margam Green Energy Ltd installation (MGEL). The following referenced ICs have been provided and where appropriate, approved by NRW. Please see details below.

Please note the above assessed Compliance Criteria which states no evidence of non-compliance, refer ONLY to the appraisal of MGEL Improvement Condition submissions.

Background

Margam Green Energy Limited Plant (MGEL) is controlled by an environmental permit (DP3137EG) to incinerate non-hazardous waste. The permit implements the requirements of the European Union Directive on Industrial Emissions and section 2.4 *Improvement Programme* of that permit specifies:

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

The following table is the Improvement Condition Table extracted from permit DP3137EG.

Table S1.3 Improvement programme requirements	
Reference	Requirement
IC1	The Operator shall submit a written report to Natural Resources Wales on the implementation of its Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.
IC2	The Operator shall submit a written proposal to Natural Resources Wales to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1, identifying the fractions within the PM ₁₀ and PM _{2.5} ranges. The proposal shall include a timetable for approval by Natural Resources Wales to carry out such tests and produce a report on the results. On receipt of written agreement by Natural Resources Wales to the proposal and the timetable, the Operator shall carry out the tests and submit to Natural Resources Wales a report on the results.
IC3	The Operator shall submit a written report to Natural Resources Wales for approval on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.
IC4	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to Natural Resources Wales.
IC5	The Operator shall submit a written report to Natural Resources Wales describing the performance and optimisation of the Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NO _x) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO _x and N ₂ O emissions that can be achieved under optimum operating conditions. The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins
IC6	The Operator shall submit a written summary report to Natural Resources Wales which presents the results of calibration and verification testing to confirm that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.

IC7	<p>Following successful commissioning and establishment of routine steady operation, the Operator shall undertake noise monitoring at the nearest local receptors. This shall include:</p> <ul style="list-style-type: none"> • A full noise monitoring survey and assessment meeting the BS4142:2014 standard • 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise • Reference to the World Health Organisation guidelines for community noise <p>Upon completion of the work, a written report shall be submitted to Natural Resources Wales. The report shall make reference to the predictions in the report produced in accordance with PO5. If rating levels likely to cause complaints at sensitive receptors are detected, the report shall include an assessment of the most suitable abatement techniques, an estimate of the cost and a proposed timetable for their installation.</p>	
IC8	<p>The Operator shall carry out an assessment of the impact of emissions to air of all the following component metals subject to emission limit values: Cd, Tl, As, Pb, Cr, Mn, Ni and V. A report on the assessment shall be made to Natural Resources Wales.</p> <p>Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant EQS/EAL. In the event that the assessment shows that an EQS/EAL can be exceeded, the report shall include proposals for further investigative work to determine whether the emissions of these metals from the site can be further reduced.</p>	

Improvement Condition 1

The Operator shall submit a written report to Natural Resources Wales on the implementation of its Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.

MGEL have previously submitted a schedule of ISO14001 certification with no definitive timelines submitted in the implementation/progress of MGEL attaining ISO14001:2015 EMS accreditation. NRW had formerly requested clear defined timelines if accreditation had not yet been achieved.

MGEL have since submitted document reference: *Information for the Environment Agency to fulfil Improvement Condition 1 (Permit EPR/DP3137EG)*.

This document outlines the following milestones:

Milestone 1 – Develop EMS system against ISO:14001 standard- Present to June 2022

Milestone 2 – Stage 1 External pre audit gap analysis assessment- June 2022

Milestone 3 – Stage 2 Full audit and accreditation with the accredited body by December 2022

With these timelines submitted NRW now considers IC1 fulfilled. However, if for any reason the above timelines become unachievable causing delay to the implementation of an accredited EMS NRW would expect written notification.

On accreditation of MGEL' EMS, NRW would require a digital copy of the Operators EMS certification. Any updating/changes to MGEL EMS will also need to be incorporated as part of an updated OPRA.

Improvement Condition 2

The Operator shall submit a written proposal to Natural Resources Wales to carry out tests to

determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1, identifying the fractions within the PM10, and PM2.5 ranges. The proposal shall include a timetable for approval by Natural Resources Wales to carry out such tests and produce a report on the results. On receipt of written agreement by Natural Resources Wales to the proposal and the timetable, the Operator shall carry out the tests and submit to Natural Resources Wales a report on the results.

NRW had requested clarification regarding MGEL initial written submission to satisfy the requirements of IC2. NRW have since received a response to this further information request. NRW can now classify IC2 as fulfilled. However, further analysis of monitoring will be carried out as part of an Operator Monitoring Assessment (OMA).

Improvement Condition 3

The Operator shall submit a written report to Natural Resources Wales for approval on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.

The Operators submission to fulfil IC3 does not summarise the environmental performance of the plant installed against the design parameters set out in the application. This would be a benchmarking exercise based on the capabilities of the proposed plant design at the application outset. However, the Operator has based the plants performance in direct comparison with the ELVs stated within their issued environmental permit (DP3137EG). The Operators initial submission reviewed a number of parameters captured as CEMS only. The Operator has since submitted an updated IC3 Commissioning Performance report which covers periodic monitoring of the following parameters: dioxins & furans, Heavy Metals (Sb (Antimony), Co (Cobalt) etc), Mercury, Cadmium & Thallium. NRW can confirm that the information submitted satisfies the requirements of the IC as they have reviewed against permitted limits. MGEL continue to notify NRW of half hourly ELV breaches namely for CO and TOC emissions to air. These breaches are recorded in previously issued CAR forms with the outstanding submissions to be recorded in subsequent CAR forms. NRW will continue to assess the plants environmental performance at the MGEL facility via appraisal of conditions set out in MGEL environmental permit.

Improvement Condition 4

The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to Natural Resources Wales.

NRW received documentation *IC4 Validation Report, Performance Test- Residence Times & Retention Time Calculation* on the 15th of October 2019. NRW believes the information submitted fulfils the requirement of Improvement Condition 4.

Improvement Condition 5

The Operator shall submit a written report to Natural Resources Wales describing the performance and optimisation of the Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NOx) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NOx and N2O emissions that can be achieved under optimum operating conditions. The

report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins

NRW had requested further clarity and explanation of a number of submitted documents to fulfil the requirements of IC5. The following documents must be read in tandem: S2828-0030-0003JGL IC5 Performance of SNCR, S2828-0030-0006SDR IC5 Query Response r0 (1) & IC 5 Report MGEL. Following the above named submissions and subsequent clarification, NRW can now consider the requirements of IC5 fulfilled. The process and operation of the SNCR and the optimisation for control of acid gases and PCDDs outlined within your response to IC5 will now form part of your operating techniques.

Improvement Condition 6

The Operator shall submit a written summary report to Natural Resources Wales which presents the results of calibration and verification testing to confirm that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.

Following review by AQMRAT of Calculation of measurement uncertainty - MCS100FT, EN 14181 QAL2 Report, EN 15259 Homogeneity Test Report and QAL 3 charts NRW considers the requirements of IC6 fulfilled.

Improvement Condition 7

Following successful commissioning and establishment of routine steady operation, the Operator shall undertake noise monitoring at the nearest local receptors. This shall include: □ A full noise monitoring survey and assessment meeting the BS4142:2014 standard □ 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise □ Reference to the World Health Organisation guidelines for community noise Upon completion of the work, a written report shall be submitted to Natural Resources Wales. The report shall make reference to the predictions in the report produced in accordance with PO5. If rating levels likely to cause complaints at sensitive receptors are detected, the report shall include an assessment of the most suitable abatement techniques, an estimate of the cost and a proposed timetable for their installation.

Due to prevailing residual noise levels NRW appreciate and note MGEL' decision to conduct noise contribution assessments at Nearby Sensitive Receptors based on a noise prediction model. The assessments appear to meet the BS4142 standard with reference to 1/3rd octave and narrow band (FFT) measurements. Based on the provided Noise Assessment documentation prepared by Noise & Vibration Consultants Ltd, NRW are content with MGEL' submission to fulfil IC7. However, if an instance occurs of a reported noise complaint perceived to be emanating from the MGEL facility NRW will conduct and request investigations undertaken to ensure that activities at the MGEL facility shall be free from noise and vibration at levels likely to cause pollution outside the site i.e condition 3.4.1 as follows.

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration

Improvement Condition 8

The Operator shall carry out an assessment of the impact of emissions to air of all the following component metals subject to emission limit values: Cd, Tl, As, Pb, Cr, Mn, Ni and V. A report on the assessment shall be made to Natural Resources Wales. Emissions monitoring data obtained during

the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant EQS/EAL. In the event that the assessment shows that an EQS/EAL can be exceeded, the report shall include proposals for further investigative work to determine whether the emissions of these metals from the site can be further reduced.

The Operators *Metals Emissions Impact Assessment Report* was submitted on the 22/10/2021. The late submission was due in part to the Novel Coronavirus pandemic causing long periods of plant shutdown. Following submission of the above stated document, NRW can now classify IC8 as fulfilled. The Regulator will continue to appraise the Operators monitoring results based on the requirement set out in Table S3.1 Point source emissions to air – emission limits and monitoring requirements found within MGEL Environmental Permit.

Conclusion

Confirmation is given on this CAR form that the Operator has discharged all the Improvement conditions stated above.

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.