

Compliance Assessment Report CAR_NRW0043013

Permit being assessed: YP3930EX.

For: Pembroke Refinery, **held by:** Valero Energy Ltd

At: Valero Energy Ltd , Pembroke Refinery, Pembroke, Pembrokeshire, SA71 5SJ.

Type of assessment: Site Inspection,

Reason: Routine.

On: 23/11/2023 between 09:00 and 12:30.

Parts of permit assessed: Please see details.

NRW Lead Officer: Michael Launder, accompanied by Gary Evans.

Report sent to: Andrew Waterman, Manager Environmental Engineering, on 15/12/2023.

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	3.1.1 Emissions to water, air or land
IR1C - Management - Energy Efficiency	Assessed (A)	
IR2A - Operations - Permitted activities	Assessed (A)	
IR2E - Operations - Improvement programme	Assessed (A)	
IR3H - Emissions and monitoring - Monitoring for the purposes of the Industrial Emissions Directive (includes LCP)	Assessed (A)	
IR4A - Information - Records	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	Operator to submit to NRW an incident investigation report, detailing the root causes of the incident, actions taken to stop the emission and subsequent remedial actions, including measures taken to prevent a recurrence of the incident.	28/01/2024

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

Introduction

This Compliance Assessment Report was completed following a site visit by Michael Launder and Gary Evans on 23 November 2023. The aim of the visit was site and process familiarisation for the new Cogeneration Plant ("Cogen") and to inspect a berth on the jetty where a loss of oil to water had recently been reported. Richard Livock (Valero - Senior HES Specialist) accompanied the Industry Regulation officers during the visit.

Cogen

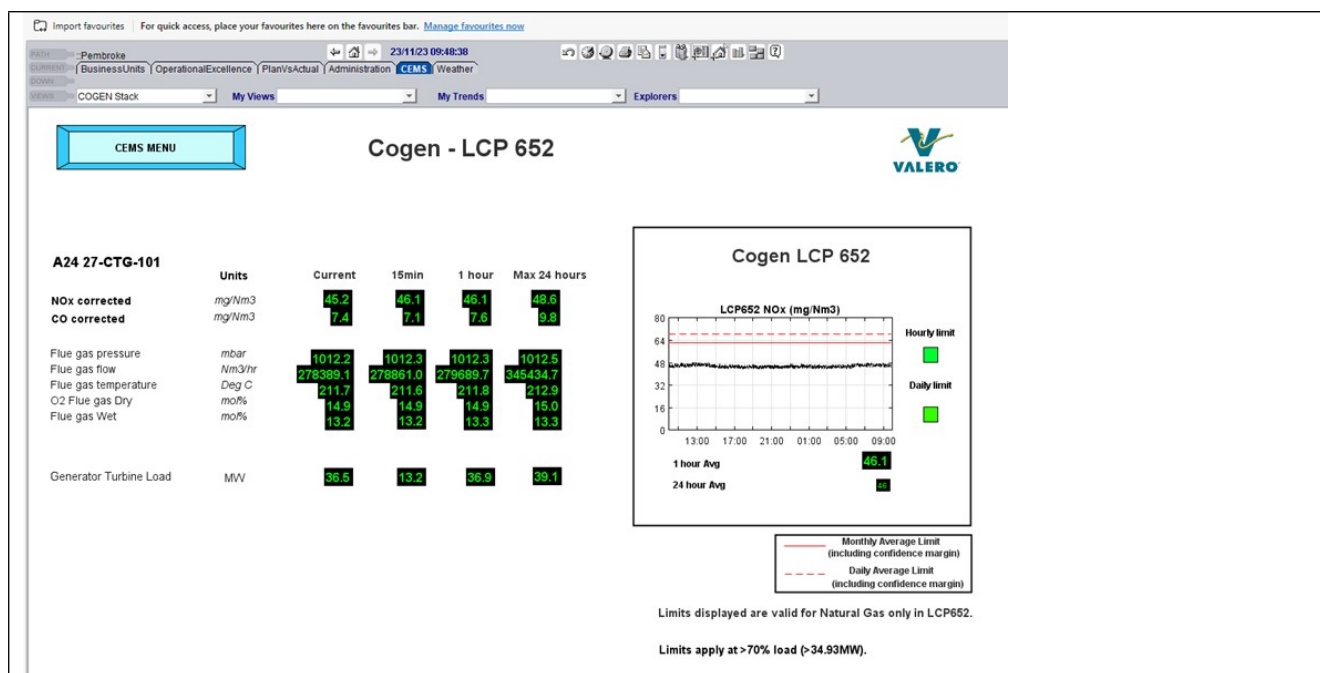
The Cogen Plant commissioning was completed in December 2021, operating since.

During the site visit the Cogen Plant was visited, viewing the combustion turbine generator enclosure, gas input lines, steam and electricity distribution infrastructure and sampling platform on the stack (emission point A24).

The permit variation incorporating the Cogen Plant has been issued with a typo on *Table S3.1(a) Point Source Emissions to Air*. The Oxides of Nitrogen daily mean ELV is stated as 50 mg/Nm³. This should be written as 55 mg/Nm³ which is 110% of the monthly mean ELV as set out in the Large Combustion Plant Directive. This will be corrected in the next variation of the permit but the operator will be held to the correct 55 mg/Nm³ limit for compliance prior to this correction.

Paul Mortimer (Valero – Operations Superintendent Steam Plant) provided an overview of the Cogen operations, confirming that the unit performs well within the emission limits, outlining a performance of around 46 mg/Nm³ for NOx and 7 mg/Nm³ for CO.

The permit states that unit limits are applied at above 70% load which equates to approximately >34.8 MWe. For maximum efficiency the operator runs the Cogen at above 70% load and minimise operations below these thresholds, however due to plant outages the load can fluctuate. It may be beneficial for the operator to track operating periods of below 70% load and review periods of low load and identify potential patterns to ensure maximum efficiency of the unit and related emissions performance. The operator provided screen shots of the performance on the day of the inspection.



Valero Process Control CEMS Page for Cogen

The operator has carried out an Annual Surveillance Test (AST) and QAL2 on the 21 and 22 of March 2023 by an external MCERTS contractor, Socotec. The next planned maintenance on the plant is due for March 2024 and major outage in September/October 2024. The maintenance of the LM2000 unit is carried out by the manufacturer GE and can also be monitored by them remotely.

The permit outlines Improvement Conditions related to the operational phase of the Cogen. The operator has made submissions to Natural Resources Wales in response to the conditions, and our assessment of these is outlined below.

IC33 - Noise Monitoring

The operator is required by Improvement Condition 33 to undertake noise monitoring to confirm the conclusions of the application Noise and Vibration Impact Assessment Report.

A report *Noise Monitoring and Assessment In Support of Discharging Permit Condition IC33* dated 30 June 2022 was submitted by the operator in fulfilment of this condition. The report outlines a noise monitoring and assessment exercise carried out in accordance with the BS4142 standard, to assess significance of noise impacts on the occupied property in the village of Rhoscrowther adjacent to the site boundary. This assessment was to validate the conclusions of the Noise Impact Assessment submitted at the time of planning and permit application, and to identify if any abatement at off-site receptors was required.

The report concludes that the noise effects from the operation of the Cogen are not expected to be significant, in line with the Noise Impact Assessment. The report also states that no noise abatement for off-site receptors need be considered at this time - however this requirement will be kept under review by Natural Resources Wales in the event of any issues raised at off-site receptors.

The submitted document demonstrates compliance with the requirements of IC33.

IC34 - BAT-AEL Compliance

The operator is required by Improvement Condition 34 to submit a report setting out compliance with the appropriate BAT-AELs and Annex V of the Industrial Emissions Directive. A letter report submitted by the

operator dated 30 November 2022 presents the relevant hourly, 95th %ile hourly, and daily averages of NO_x and CO derived from validated CEMS measurements. The report demonstrates compliance with the appropriate BAT-AELs and Annex V of the IED.

The submitted document demonstrates compliance with the requirements of IC34.

Berth 5 Oil Release

A report of a loss of oily water to Milford Haven Waterway was received from the operator on 17 November. On the morning of 17 November, a small oil sheen was observed on the surface of the Haven around Berth 5. The source was identified as a weep of oily water from a flange on the Berth 5 slop tank. In response to the incident, the operator deployed absorbent pads around the leak and removed oily water from the surrounding scaffolding. The operator informed the Milford Haven Port Authority, who deployed a pilot boat to assess the extent of the sheen. By 10:30 the sheen was reported to have dispersed.



Berth 5 slop tank during site visit

During the site visit on 23 November, Berth 5 was visited accompanied by Sean Conway (Valero - Operations Superintendent Jetty). The slop tank was back in service and observed to not be leaking with temporary scaffolding beneath seen to be clean.

Compliance: Permit condition 3.1.1 states that there shall be no point source emissions to water except those listed in Schedule 3 of the permit. A non-compliance score of C3 against criteria IR3A Emissions to water, air or land has been allocated to this breach.

Action: Operator to submit to NRW an incident investigation report, detailing the root causes of the incident, actions taken to stop the emission and subsequent remedial actions, including measures taken to prevent a recurrence of the incident.

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.