

Compliance Assessment Report CAR_NRW0039994

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 carried out: Audit, Reason: Routine.

On 07/04/2022 between 10:00 and 17:00.

Parts of permit assessed: Please see details below

NRW Lead Officer: Ieuan Davies, accompanied by Gary Evans.

Report sent to: Andrew Waterman, Manager Environmental Engineering on 06/06/2022.

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)	
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
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

Site description

Valero Energy Limited processes crude oil into its component parts to produce fuels for sale into various markets. The processing of crude oil involves a series of inter-linked processes to produce

high value products.

The site is located on the south shore of the Milford Haven estuary approximately 7 km west of Pembroke, Pembrokeshire and is regulated under the Environmental Permitting Regulations 2016 (EPR/YP3930EX).

Purpose of visit/assessment

The visit was arranged to discuss the following topics:

Planned maintenance on Pressure Relief Valves

Valero FCCU Discussion on investigations into exceedance of Particulates at emission point A5A.

Used Cooking Oil Project Discussion (IC41)

EPRTR - UKPIA Meeting discussion on PM10 and PM2.5.

Fuel Oil Sealines (current situation update Valero)

NRW update on Enforcement Notice.

NRW to provide update on LDAR / VOC audit (BAT 6). (future audit)

Valero Landfarm update NRW

The visit was also an opportunity to introduce Ieuan Davies a new site Inspector to the Valero EHS team and for a tour of the Installation to be provided.

Planned maintenance on Pressure Relief Valves.

Following correspondence on the 29th March 2022 Valero Refinery stated the requirement to remove certain Pressure Relief Valves for planned maintenance including statutory inspection, testing and overhaul. Valero noted due to isolation difficulties, to safely isolate the PSV's required the isolation of the High Pressure sour gas amine scrubber (10-F-102). With this vessel offline Valero stated that the HP gas supply will be re-routed into the Refineries Fuel gas system and did not expect the facilities Environmental Permit Emission Limit Values (SO2 bubble limit & Fuel Gas H2S 200ppm limits) to be exceeded.

During the visit Valero stated that the work was running ahead of schedule and in subsequent correspondence confirmed that the maintenance works had been completed with the aforementioned limits not being exceeded.

Valero FCCU Discussion on investigations into exceedance of Particulates at emission point A5A.

Please see CAR from Reference CAR_NRW0039434 for prior discussion regarding monthly averages ELV breaches of Particulates from emission point A5A (FCCU Catalyst Regenerator).

Valero continue to investigate the root cause of the Particulates breach at emission point A5A.

Investigations by Process Engineering and Operations are on-going and have so far comprised in a review of the CEMS analyser A5A performance and set-up.

Used Cooking Oil Project Discussion (IC41).

Valero have previously requested permission to undertake and Used Cooking Oil Trial to attempt to produce a valuable Ultra Low Sulphur Diesel B7 product.

Valero are looking to continue with the trial with some changes to the original design. The company

will be finalising the location, process and hired equipment and propose to restart the trial either at the end of 2022 or beginning of 2023. The company has already provided a response to Improvement Condition 41 detailing the outcomes. The company plan to provide additional information to the response when the above information is confirmed to enable continuation of the trial.

This request will be formalised within the additional Improvement Condition 41 response from Valero.

Environmental permit requires the following:

The Operator shall submit a written report to Natural Resources Wales with the outcomes from the Used Cooking Oil (UCO) trial. The report shall include the following:

- *The timescales when the trial was active.*
- *Total Volume of waste material used.*
- *Any process changes as part of the trial that could impact environmental parameters*
- *Any modifications to the Operating Techniques/Onsite Emergency Plan*
- *Any near misses/spills involving the UCO or disposal requirements*
- *Overview of the environmental benefits of the trial.*

A written report summarising the findings shall be submitted to Natural Resources Wales within 2 months from completion of the trial.

Valero to provide NRW with updated response to IC41 (UCO trial) detailing further changes to the trial, including timescales, equipment, and duration.

EPRTR - UKPIA Meeting discussion on PM10 and PM2.5.

The UK Regulators have been meeting with UKPIA recently and have outlined that the regulators will be reviewing the monitoring and quantification of particulate releases from the refinery sector. This will also look at the particulate distribution and proportion. i.e. PM10 and PM2.5. Valero are participating in the UKPIA and Environmental Regulators forum.

Fuel Oil Sealines (current situation update Valero)

All insulated Heavy Fuel Oil lines have been intelligently pigged and Valero have responded to NRW formally outlining the status.

No1 & No4 defects have been addressed and returned to service.

No2 repair date to be confirmed.

No3 ongoing repair with completion expected July 2022 and then returned to service.

Gary Evans and Ieuan Davies confirmed that NRW will confirm in writing NRW's enforcement response and the expectation regarding the status of the Enforcement Notice on the Fuel Oil Sea Lines.

Loss of Containment overview

Valero contacted NRW on the 24th March of 2022 via telephone outlining observations of a small quantity of hydrocarbon on the foreshore adjacent to the jetty and were investigating the matter.

The company outlined during the visit (7th April 2022) that the hydrocarbon could have emanated from a diesel sea line inland and had employed ERM (Environmental Consultants) to investigate the potential loss of containment. The company had implemented mitigation measures based on advice by their consultants. NRW have requested further information including reporting procedures, monitoring data and investigation report/s.

NRW to provide update on LDAR / VOC audit (BAT 6). (future audit)

The UK Refinery Sector Regulators (Environment Agency, Scottish Environmental Protection Agency and NRW) have carried out a number of audits across the UK Refineries reviewing the companies procedures associated with Leak Detection and Repair (LDAR). This aspect was discussed with UKPIA and 4 of the UK sites have already been audited on this aspect. The Valero Refinery audit has been delayed due to the pandemic situation and staffing issues with NRW. It is therefore proposed that the audit will take place in Q3 2022 (Oct – Dec 2022) and NRW will be in contact with Valero for convenient dates.

Valero Landfarm update NRW

Valero Energy Ltd (Valero) Pembroke refinery are an EPR permitted facility and have also historically conducted landfarming operations under a separate Waste Management Licence (WML- Pre Landfill Directive activity) (The 8 landfarm plots sit within the current Installations boundary).

Landfarming is a bioremediation waste treatment process performed in the upper soil zone where in this case contaminated sludges have been mixed into the soil zone and periodically tilled with application of fertilizer to stimulate growth of microorganisms that degrade the target pollutants.

It is understood the landfarms last accepted waste in October 2003 and considering the WML are no longer utilised Valero are keen to Surrender the Licence.

The Landfarms sit within the Installations boundary which has a comprehensive site monitoring programme in place and obligations under the EPR permit to return the site of the regulated industry to a satisfactory state.

NRW South West Industry Regulation Officers are currently consulting with colleagues to determine the feasibility for Valero to submit a Surrender application and consolidate the existing Landfarm plots within the current Installations boundary. NRW Officers are likely to request further information on the current condition of the Landfarms and will advise on the scope and next steps.

Conclusions and further actions required

NRW will be concluding the enforcement response for the Fuel Oil Sea Lines incidents and clarifying in writing the situation of the Enforcement Notice on the Sea Lines.

Valero to continue to investigate and review particulate emission from the FCCU and update NRW via Part B reporting.

Valero to provide NRW with updated response to IC41 (UCO trial) detailing further changes to the trial, including timescales, equipment, and duration.

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.