

Compliance Assessment Report CAR_NRW0041219

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: Unknown, Reason: Other.

On 31/12/2022.

Parts of permit assessed: No 1 Diesel Sea line - Loss of Containment (Diesel) C Track

NRW Lead Officer: Gary Evans.

Report sent to: Andrew Waterman, Manager Environmental Engineering on 17/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E2 - Emissions - Land and groundwater	C2 Significant	3.1.1

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
1	31

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
E2	Improve operations	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.

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 (CAR) is a written record of an incident that occurred at the Pembroke Refinery involving a leak or loss of containment (LOC) of Diesel in

January 2022. This CAR form aims to conclude the initial compliance assessment of the potential environmental impact from this leak. The root cause remains under investigation and has not been scored.

Incident in Brief:

On the 20th of January 2022 at 15:00hrs operators at the Pembroke Refinery discovered a leak of Diesel from No 1 Diesel Sea Line No 21-O-314-18"-J13 (pipe track C). The sea line was immediately taken out of service for repair and a spill response procedure implemented by Valero.

The incident was self-reported by the operator to Natural Resources Wales (NRW) in March 2022 and a Schedule 5 notification was submitted by the company shortly after the verbal discussion with NRW. The operator observed hydrocarbons on the foreshore and immediately deployed absorbent pads and removal of the visual hydrocarbon at ground surface. Valero also commissioned a specialist contractor to undertake an environmental assessment due to the potential movement of hydrocarbon within the ground/surface water.

The operator was forthcoming in the information requested by NRW during the incident and facilitated and cooperated with NRW throughout. The operator also sought advice and guidance from their consultants in context of the installation to ensure that the loss of containment was remediated in a timely manner with no ongoing detriment to the environment. NRW also sought advice from the internal geoscience team regarding the geology in the area and any potential environmental impact as a result of the loss of containment.

The operators have provided an updated Part B Notification detailing further information:

- Pinhole leak confirmed as <0.5mm at 6 o'clock position of the pipeline due to external corrosion.
- On the 16th of February, following a period of heavy rainfall, a hydrocarbon sheen was observed at a down gradient/ ephemeral seepage point (SW6). An interception pit was therefore constructed upstream of the SW6, which contained absorbent pads to prevent any further downgradient contamination.
- Following the observation of sheen on SW6, a desk based review and subsequent site walkover was completed by ERM. This indicated a potential pathway to the Milford Haven Waterway (foreshore) via a not previously observed stream, located North of the leak location.
- On the 22nd March whilst monitoring the foreshore, hydrocarbon sheens were observed in rock pools in a small area where the stream discharges to the Milford Haven Waterway (foreshore)

Further measures outlined by the operator.

- Composite wrap repair completed on No1 Diesel Sealine (23/01/22), per site Inspection Advice Note (IAN). Please refer to IAN submitted with RFI Part 2.
- Investigation completed by Valero (IPS No. 2437765). Paint breakdown and subsequent pustular corrosion has been identified as the root cause.
- A review of inspection process for hydrocarbon lines in pipe track C has been

completed (per investigation recommendations). All hydrocarbon lines in this location will be categorised similar to lines over water, yielding a reduction in their visual inspection interval from 10yrs to 5yrs and receiving the same prioritisation for painting and insulation defects. Instruction PP-EIS-INS-0021 has been updated to reflect this.

- Operator routine/ Hand Held Duty (HHD) developed for bi weekly Audio, Visual, Olfactory checks to be completed on pipe track C
- In conjunction with the overall site Conceptual Site Model (CSM), a local CSM has been developed by ERM to improve understanding of Source (Pipe track C), pathway and receptor (Waterway/ Foreshore).
- As part of the extensive environmental monitoring, 4 x trial pits and 4 x monitoring wells have been installed (BH670S, BH670D, BH671, BH672).
- Groundwater and surface water sampling/ testing has been conducted on a frequent basis (See RFI Parts 1 & 2)
- Absorbent pads have been placed at various points along the pathway between source and receptor/ foreshore.
- A local Conceptual Site Model and groundwater monitoring indicates diesel product being present in BH670D (the monitoring well nearest to leak location). The composition of the Light Non-Aqueous Phase Liquid (LNAPL) in BH670D alongside observations made of diminishing sheen at the foreshore suggest that the product in the well is not the source of the sheen at the foreshore. Approximately 18 litres of Diesel product have been recovered/ bailed out. LNAPL has not been detected in any of the downgradient monitoring wells (BH671 & BH672). A schedule has been developed with ERM to continue monitoring of these wells, each quarter for the next 12 months. Additional bail out activities will continue under the advice of ERM.

Section 3 of the environmental permit states that there will be no point source emissions to air, land and water unless from the sources and emission points listed in Schedule 4. For ease of reference the condition has been replicated below:

Section 3 (3.1) of the environmental permit states:

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1(a), S3.1(b), S3.1(c) and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

NRW considers that permit condition 3.1.1 was breached in respect of the above sections and have been scored in accordance with the NRW Compliance Classification Scheme.

As a result of this incident there was a loss of containment and a point source emission to ground which is classified as a category 2 (C2) breach of the environmental permit. All non-compliances (except those relating to amenity) are categorised on their reasonably foreseeable impact on the environment and not their actual impact. A category 2 breach is a non-compliance at a regulated site that could foreseeably result in a significant incident.

The root cause of this incident has not been scored on this CAR form as the investigation into the root cause will be carried out by NRW.

Conclusion:

The resultant enforcement action on the findings of the investigation such as the actual environmental impact amongst other factors such as no-intent, operator response / co-operation, and the corrective actions taken to prevent a reoccurrence (root cause investigation) is currently being considered. A category 2 score has been incurred which is assessed on the reasonably foreseeable impact. This incident could have resulted in a significant incident/ pollution.

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.