

## Compliance Assessment Report CAR\_NRW0039692

**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:** Report/Data Review, Reason: Other.

On 08/04/2022.

Parts of permit assessed: Sea Line Fuel Oil - Loss of Containment

**NRW Lead Officer:** Gary Evans.

**Report sent to:** Andrew Waterman, Manager Environmental Engineering on 08/04/2022.

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

| Part of permitted activity assessed (criteria)   | Assessment result | Permit condition |
|--|-------------------|------------------|
| E3 - Emissions - Surface water   | C2 Significant    | 3.1.1            |
| C2 - General Management - Management system and operating procedures   | Assessed (A)      |                  |
| G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales | Assessed (A)      |                  |
| G3 - Monitoring and Records, Maintenance and Reporting - Maintenance records                                   | 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 |
|--|----------------------------|
| 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 |
|----------|---|-------------|
| E3       | Compliance with Enforcement Notice issued January 2019.<br>Company to update NRW on Notice steps by date below. | 01/12/2022  |

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 CAR Form has been produced in response to the loss of containment from Fuel Oil Sealine No 3 in January 2019. This CAR Form has considered the investigation information obtained along with submissions from Valero Energy Limited.

### Incident Overview

On the 2nd of January 2019 Valero Energy Ltd observed a leak from a Fuel Oil Sea Line (Sea line 3) on the jetty. The company outlined the chronological events as follows: -

#### Wednesday 2nd

22:15hrs – Pilot on the Arctic Blizzard, berth 2, aft harbour tug had spotted oil in the water to the West of berth 2. The vessel was making ready to sail. Low water was 22:09.

22:35hrs – 00:01 – Valero with the assistance of the Svitzer line boat and a harbour tug tried to establish and locate the origin of the oil. The tide was now starting to flood.

#### Thursday 3rd

00:01hrs – The ‘Sea Sweep’ arrived and started cleaning up in the area.

01:00hrs approx. – Origin of the oil, identified leaking at West of the T-head on the 3 Fuel Oil Sealine.

01:20hrs – No 3 Fuel Oil Sealine MOV at the Fuel Oil Pump House closed. Leak substantially reduced to drops.

01:20hrs – The ‘Sea Sweep’ and ‘Dynevor’ Port authority boats were already working on the South side of the T-head where the oil was tracking with the tide.

03:05hrs - Initiated Ambipar Oil Spill response. Resource coming from Milford Haven, Bristol, Barnsley & London.

04:12hrs – High tide, Initiated resource to place tarpaulin underneath leak area to prevent the drips entering the waterway.

06:30hrs – The oil is dispersed moving west with tide, stretching between Puma Jetty and South Hook Jetty. Darkness making it difficult to make an accurate assessment of the leak. Estimation of product lost is order of 10’s m3.

07:30hrs - Beaches surveyed by Ambipar Response and no oil present at Sandy Haven, Gelliswick, Milford, Neyland Yacht Club and Burton. Resource will concentrate on surveying beaches on the south side of the Haven. Plan to do a water survey on Haven at first light at 08:15hrs.

Valero self-notified the incident to NRW via telephone and later followed up the report with a Part A Notification in line with their permitted requirements. As detailed above the company instigated their Oil Spill Contingency Plan and mobilised a specialist contractor (Ambipar Response). The initial response was scaled up by the company due to initial estimates of the loss of containment at around 10,000 litres. This was a very conservative estimate at the time of the report as it was dark (early hours the morning).

Milford Haven Port Authority had declared the incident as Tier 2, which resulted in a multi-agency response with involvement of the Maritime and Coastguard Agency (MCA), Mid and West Fire Rescue Service (FRS) and Shoreline Clean-up Assessment Teams. The MCA carried out aerial surveillance of the Haven along with specialist drones from the FRS. Booms were deployed strategically based on tidal data and aerial footage and located on Sandy Haven and The Gann to protect sensitive habitats. Valero along with other agencies responded quickly and initiated a significant amount of resources to mitigate any environmental impact.

In the days following initial response and based on detailed aerial surveys the company provided NRW with updated details on the quantity of oil that was lost into the Haven. The company estimated that the loss was in the region of 500 litres and not the initial estimate of 10,000 litres. The pipeline is utilised for heavier products such as Heavy Fuel Oil and Vacuum Distillation Residues and is steam traced due to the viscosity of the material. The section of the pipe that resulted in the loss of containment was found to have a hole of approximately 0.5mm x 1.5mm. The pipeline is covered in lagging for heat retention and is thought to have covered the hole restricting the leak flow. The estimate was also calculated based on the aerial photographs taken on the 3rd of January (following day) which is believed to show a plume of around 20 litres of oil remaining in the Haven, which is in line with reduced estimate of 500 litres for the initial loss to the Haven that was first noticed on the 2nd of January.

In relation to the environmental impact, due to the rapid response of the company and other agencies the impact on local habitats were minimised significantly with deployment of booms, oil skimmers and clean up teams on the beaches. The company removed seaweed from the areas and cleaned any minor oil sheens on the shoreline. The seaweed was only slightly contaminated approximately 1%, however was removed to protect to the habitat.

NRW attended the jetty and observed that Valero had placed temporary sheeting under the leak area to prevent oil entering the Haven. NRW also deployed staff with the Haven area to obtain oil samples from the shoreline and on site at the Valero jetty (source of the leak). Samples were analysed at the NRW laboratory for evidential purposes. Photographs were also taken of the jetty area around Sealine No 3 by NRW.

Valero carried out an incident investigation to identify the root cause of the loss of containment from Sealine no 3 and identified the cause as corrosion under insulation (CUI). It is believed that a hole in the outer casing of the lagging allowed water to ingress, which in turn vapourised and condensed on the pipe corroding a localised area.

NRW issued Valero Energy Limited with a Regulation 37 Notice (1) and (2) of the Environmental Permitting Regulations to suspend the operation of the Sealines (1 and 3) based on the loss of containment from both pipelines within a short period of each other. The Notice required the company to suspend operation of the pipelines until their integrity could be assessed. Valero has responded to the Notice and NRW will be writing to the company outlining the status of the Notice and steps detailed within the Notice.

The company has carried out extensive inspection work on the jetty fuel oil sealines and introduced a new intelligent pigging assessment to fully inform the company of the condition of the lines. The company have voluntarily chosen this approach at significant extra cost, however, will provide both NRW and the company with confidence that the condition of the pipelines over the Haven are in good condition and less likely to result in loss of containment into the Haven.

### Conclusion

The resulting incident has raised concerns within NRW over the jetty sea lines, however the company has implemented several mitigation measures to minimise any future risk, these range from updated spill equipment, new spill procedures and training, along with a comprehensive inspection regime. The company has written to NRW on the 20th October 2021 outlining the findings of their investigation along with changes made on site, which has resulted in significant costs to the company in the £ millions. The company will also continue with their improvement work on the jetty lines to minimise the risk of a future release to the environment.

The company have been open during discussions with NRW and during information requests as part of the investigations. They have acted immediately to the incident and implemented several changes voluntarily to mitigate risks. The company also supported clean up measures and funded deployment of aerial support mechanism during the incident.

The notification of this event was made by Valero in accordance with the permit requirements (EPR YP3930EX) under condition 4.3.1.

The release to water was not from a permitted release point (EPR YP3930EX) at the Valero refinery and is therefore contrary to the permit condition 3.1.1 (Table S3.2).

The effect of the release has been scored a Compliance Classification Score (CCS) 2. A CCS2 score for the release is due to the potential of a significant impact. The root cause of the incident has not been scored in this specific incident as the company had been following industry standards on jetty pipeline inspection procedures.

As a protective response, an Enforcement notice was served in January 2019, following dialogue with Valero, requiring a review their 'Scheme of Examination' for the jetty including leak detection and maintenance.

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.