Valero Pembrokeshire Oil Terminal Ltd
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Date: 31 March 2025
Your Ref:

Mr William Wallace
Senior Officer, Installation and RSR Permitting
Natural Resources Wales
Crown Buildings
Cathays Park
Cardiff
CF10 3NQ

Dear Mr Wallace,

Application reference: **PAN-026226 (EPR/BK1341IN)**
Operator: **Valero Pembrokeshire Oil Terminal Limited**
Facility: **Valero Pembrokeshire Oil Terminal, Waterston, SA73 1DR**
Reference: **Request for Information re: NRW email dated 25th March 2025**

In response to your email dated 25th March 2025, please see additional information below to support a duly made status for our application.

1) Total Annual Throughput:

Information requested: Clarification if the total annual throughput from loading/unloading from ocean going vessels will increase as a result of the variation - in the application and pre-application documents there is refence to a new loading arm at berth 2. Can you:

- Specify if this will increase the throughput of loading/unloading and if so, can you specify the amount it will increase by.
- If there is any increase, please state if this would result in exceeding the threshold of 1,000,000 tonnes per year (at or above the level which BAT 52 applies).

Response:

- Berth 2 currently has 3 loading arms. The current arrangement is limited to 2 loading arms for white oil service. The project will see an additional loading arm installed on Berth 2 to provide a total of 2 arms dedicated for crude oil service. The maximum design rating for each arm is 4,500 m^3/hr, however piping restrictions will limit offload rates to a maximum of 6,000 m^3/hr for both arms.

  It should be noted that the loading arm replacement was part of an improvement process to replace flexible hoses with hard arms to improve safety and risk to the environment.

  Although berth usage is forecast to increase, the importing of crude oil will displace some of the current throughput on the berth, as 3 of the largest inshore storage tanks will be removed from the current storage inventory. The potential yearly crude volumes for continuous transfers to Pembroke is between 675,840m^3 (low rate 80 m^3/hr) and 2,851,200 m^3 (high rate 330 m^3/hr).

- Industrial Emissions Directive (IED) Best Available Technique (BAT) 52 requires the installation of a vapour recovery technique to reduce Non-Methane Volatile Organic Compound (NMVOC)

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emissions from marine loading. BAT 52 is not applicable to loading/unloading operations for sea-going vessels with an annual throughput <1 million m^3/yr.

Valero's interpretation is crude ships are fully inerted and do not vent to atmosphere during unloading operations, so BAT 52 does not apply. Gasoline throughput since VPOT acquisition has averaged 0.55 million m^3/year (2019 – 2024), i.e. below BAT 52 threshold for sea-going vessels.

Water draw off effluent from VPOT crude oil storage tanks may be transferred to the Refinery by ship for treatment. The calculated volume may be up to 85,000 m^3/year assuming a 3% water content in the crude and high rate of transfer. The NMVOC content of this effluent will be minimal and the volume will not result in VPOT exceeding the BAT 52 threshold.

The inshore crude oil receiving tanks are external floating roof tanks with primary and secondary seals and meet BAT 49 – '*In order to reduce VOC emissions to air from the storage of volatile liquid hydrocarbon compounds, BAT is to use floating roof storage tanks equipped with high efficiency seals*'.

Valero conclude that the Crude Project will not change VPOT's existing BAT 52 compliance and the 1 million m^3/year threshold will not be exceeded.

2) Management Documents:

Information requested: Similar to the request for Valero (Pembroke Refinery) there are a few documents (such as the accident management plan) that are stated to be reviewed prior to commissioning. Can you provide an outlined of what parts of the documents will be revised (either at the preliminary stage or final stage).

Response: VPOT's Inner Emergency Plan (onsite emergency response plan) will be updated following detailed design (Q3-4 2025) and pre commissioning (2026) stages. The existing plan already includes guidance for on-site and jetty loss of containment incidents. Valero have PERO trained staff and a new procedure will be written for the operation of the Cross Haven Pipeline. This will detail emergency shutdown, depressurisation and isolation of the pipeline. Documents will be based on UKOPA guidance. VPOT's ERA & QRA has assessed the MAH scenarios (safety and environment) and the 2025 COMAH Safety Report will provide the ALARP demonstration. The scenario for VPOT's 2025 COMAH multi agency exercise is loss of containment from crude line at VPOT.

The proposed piping run(s) within VPOT boundary fence line will be located within existing pipe tracks containing other petroleum hydrocarbon product lines. This will continue to be reviewed as more detailed process hazard analysis studies are completed throughout the design and engineering phases of the project.

As operation of the Cross Haven Pipeline has the potential to cause an off-site incident[1],VPOT's COMAH External Plan will also be reviewed.

[1] The COMAH Regulations define an off-site incident as: '*an occurrence (including in particular, a major emission, fire or explosion) resulting from uncontrolled developments in the course of the operation of any establishment and leading to serious danger to human health or the environment, immediate or delayed, outside the establishment, and involving one or more dangerous substances'.*

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3) Specification of new pipeline:

Information requested: Provide with more information on the specification new pipeline and how this design will have containment to prevent contamination to land in the event that a leak occurs in this section of pipework. It also noted that some sections of the proposed extended pipeline go through the site covered by Dragon LNG permit. Can you confirm if there is any co-ordination between your site and Dragon LNG and if there are any joint responses if any leaks or accidents occur in this section of pipework.

Response: The new pipework will be constructed to the American Society of Mechanical Engineers B31.3 – Process Piping (ASME B31.3) supported by Valero piping standards. ASME B31.3 contains requirements for piping, covering materials and components, design, fabrication, assembly, erection, examination, inspection and testing of piping. The material will be standard weight carbon steel and externally coated to Valero painting standards.

The pipeline will be fully welded with flanges being limited to the valved tie ins at either end of the new pipe route. The pipework will be subject to ongoing inspection as part of VPOT's written schemes of examination process (WSE's). The connection to the existing Cross Haven pipeline has an existing pig launcher which is located in a bunded area. This bund drains to a three chamber interceptor and as part of this project a hydrocarbon detector will be installed in the 1st chamber.

The proposed transfer pumps will be replaced with new equipment having double seals to reduce the risks from seal failure.

The route will follow existing Valero pipe tracks which already contain process pipework that run close to, but not within the Dragon LNG site or permit boundary.

There are regular meetings between VPOT and Dragon LNG as both sites form a Domino Group defined under COMAH Regulation 16.

Valero trust this letter clarifies the points raised, if however, further information is required, please contact the under signed.

Yours sincerely,

Huw Morgan

Digitally signed by Huw Morgan
Date: 2025.04.01 08:51:33 +01'00'

Huw Morgan
HES Supervisor

cc: David McLoughlin - Director Pipelines & Terminals
Jamie Dow - Senior Manager VPOT
Jeff Cox - Senior Manager Logistics Engineering