Cyfoeth Naturiol Cymru
Natural Resources Wales

Natural Resources Wales Permitting Decisions

Valero Pembrokeshire Oil Terminal Permit Variation

Decision Document

Application for a Normal Variation

The application number is: PAN-026226

The permit variation number is: EPR/BK1341IN/V008

The operator is: Valero Pembrokeshire Oil Terminal Ltd.

The Installation is located at: Valero Pembrokeshire Oil Terminal, Main Road Waterston, Milford Haven, SA73 1DR

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Contents

Glossary of acronyms and definitions used in this document

API-American Petroleum Institute

BAT- Best Available Techniques

BRef- Best Available Techniques (BAT) Reference Document for the Refining of Mineral Oil and Gas (2015)

COMAH- Control of Major Accident Hazards

DAA- Directly associated activity

EMS-Environmental Management System

EPR-Environmental Permitting Regulations (England and Wales) 2016

IED-Industrial Emissions Directive (2010)

NRW-Natural Resources Wales

VPOT-Valero Pembrokeshire Oil Terminal

1. Executive summary

1.1. Application summary

Valero Pembrokeshire Oil Terminal Ltd. (VPOT) applied to vary their permit as part of the recommissioning of the pipeline connection with Pembroke Refinery (EPR/YP3930EX). Crude will be received on site by ship and stored in three tanks prior to transfer via the Cross-Haven pipeline to Pembroke Refinery for processing or storage. The proposed variation is to allow the following changes:

- Connection to Cross-Haven pipeline located in south-east corner of VPOT. The transfer of crude from the site will be added as a directly associated activity. The crude is to be stored in three tanks (9, 11 and 12) that are already permitted to store crude. The variation will also include new pipework that will link the tanks to the berth and the Cross-Haven pipeline.
- Addition of new loading arm to Berth 2.
- Listing the effluent treatment activity in the permit as a directly associated activity (DAA). This activity was already carried out on site and has been assessed in the permit review against the best available techniques (BAT) (2021) but was never listed as a DAA. As such it is being added to the permit as a directly associated activity to reflect the operations on site.

The Cross-Haven pipeline is regulated by The Pipe Line Safety Regulations 1996 and as such is considered out of scope of the EPR Permit and this variation.

1.2. Our decision

We have decided to issue the variation for Valero Pembrokeshire Oil Terminal operated by Valero Pembrokeshire Oil Terminal Ltd.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

We have taken into account all relevant considerations and legal requirements.

2. Receipt of the application

The application was received on 14/08/2024**.** In order for us to be able to consider the application duly made, we needed more information. We requested the following:

- Clarification if the total annual throughput from loading/unloading from ocean going vessels will increase as a result of the variation.
- Outline what parts of the various management documents referenced are to be revised.
- Information on the specification of the new pipeline and how this design will have containment to prevent contamination to land.

An email requesting this information was sent to the applicant on 25/03/2025. Upon receipt of this information, on 16/04/2025, we were able to consider the application duly made. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

3. Confidential information

The applicant made no claim for commercial confidentiality, and we have not received information in relation to the application that appears to be confidential in relation to any party.

4. Legislation

The variation will be issued, under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that the decision on this application is consistent with its general purpose of pursuing the sustainable management of natural resources

(SMNR) in relation to Wales and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in issuing the variation a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

As the EPR regulator for Part A1 installations in Wales, NRW are required to determine any duly made Part A1 permit applications. This means that we must decide either to grant, or to refuse the variation based upon an objective assessment of the proposals against the detailed legal requirements of EPR. Our public participation statement[1] gives more information on what can, and cannot, be taken into account when making our permitting decision.

The application, and this decision document, only considers the permitting of the facility under EPR as described throughout the document. We only assess the installation and its impacts and cannot take into consideration indirect impacts which are not as a direct result of activity within the installation boundary.

Any proposed development and wider associated activities will be required to be compliant with all relevant and applicable law, for example, environmental law, health and safety law, planning law. This other legislation acts largely independently of EPR (although they may be inter-related). Such other matters are beyond both the scope of this document, and of our regulatory remit and expertise and are not relevant to our EPR permitting decision. Ensuring compliance with all other regulation and obtaining any required consents (such as planning permission) is the responsibility of those undertaking the development and is regulated by the relevant appropriate authority for each.

[1] Natural Resources Wales / Public participation: how you can take part in our permit and licence consultations

5. Consultation

No consultation has been carried out on this application because the variation was deemed a normal permit variation and not a substantial. This decision was made in accordance with the Environment Permitting Regulations (EPR), our statutory Public Participation Statement[2] and our Regulatory Guidance.

6. Requests for information

Further information was requested during determination by way of a Schedule 5 Notice requiring the applicant to provide further information relating to information regarding the containment measure for Tanks 9, 11 and 12 (see section 9.2). The Schedule 5 Notice was sent on 25/06/2025 with a deadline for response of 17/07/2025 (extended to the 08/08/2025).

The applicant's response to the Schedule 5 Notice was provided on 08/08/2025. The additional information supplied satisfied the requirements of the Schedule 5 Notice.

A copy of the information notice and e-mails requesting further information were placed on our public register as were the responses when received.

7. The Installation

7.1. The permitted activities

The regulated facility is currently an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations:

- Section 1.2 Part A1 (e) The loading, unloading or other handling of, the storage of, or the physical, chemical or thermal treatment of crude oil

An installation may also comprise "directly associated activities", which at this Installation include includes:

[2] Natural Resources Wales / Public participation: how you can take part in our permit and licence consultations

- Connection to mainline pipeline limited pumping station located north of VPOT. Connection to the Mainline Pipeline

Together, these listed and directly associated activities comprise the Installation.

7.2. Changes to the installation

The variation will make the following changes to the permit:

- Addition of the effluent treatment facility as a directly associated activity (DAA) -The site already has an existing effluent treatment system that utilises an American Petroleum Industries (API) oil separation system. This had been assessed in previous permit review, however this activity was not listed as an individual/separate activity in the permit. The variation is to add this as a directly associated activity
- Connection to Cross-Haven pipeline located in the south-east corner of VPOT. -The transfer of crude from the site will be added as a directly associated activity.
- Receipt crude - The activity is to be expanded to include a new loading arm and associated pipework to the existing storage tanks and the Cross-Haven Pipeline.

8. Operation of the installation

8.1. Operator competence

The applicant is the sole operator of the Installation. We are satisfied that the applicant is the person who will have control over the operation of the Installation after the variation is issued; and that they will be able to operate the Installation so as to comply with the conditions included in the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator[3].

[3] RGN 1 Understanding the meaning of 'operator' (naturalresources.wales)

8.2. Environmental Management System

The applicant has stated in the application that they will implement an Environmental Management System (EMS) that will meet the requirements for an EMS in our "How to comply with your environmental permit" guidance[4].

There are some management plans (see accident management plan) that integrate into the wider EMS that have not yet been finalised. As such we have put a pre-operational measure for the applicant to submit a finalised version of the management plans prior to the commissioning of the Cross-Haven pipeline.

We have reviewed the application and are satisfied that appropriate management systems and management structures will be in place for this Installation, and that sufficient resources are available to the Operator to ensure compliance with all the permit conditions.

8.2.1 Accident management

The EMS includes an Accident Management Plan which the applicant has submitted as part of this application. We have reviewed this and are satisfied that appropriate controls are in place to help reduce the occurrence and impact of any accidents that occur.
The operator has outlined what aspects of the accident management plan/emergency plan) will be amended as a result of the addition of the connection to the Cross-Haven pipeline.

In order to ensure that the management system proposed by the applicant sufficiently manages the residual risk of accidents, permit condition 1.1.1a requires the implementation of a written management system which addresses the pollution risks associated with, amongst other things, accidents.

[4] Natural Resources Wales / Guidance to help you comply with your environmental permit

8.3. Operating techniques

8.3.1 Installation activities and assessment of Best Available Techniques

The applicant has described the proposed equipment and operating techniques and compared these against the relevant Best Available Techniques conclusions (BATc) which for an installation of this type is the BRef for Refining of Mineral Oil and Gas.

We have specified that the applicant must operate the permit in accordance with descriptions in the application.

Sections 8.3.1.1-8.3.1.4 detail the different sections of the variation against the relevant BAT techniques.

8.3.1.1 Water Treatment

The use of the API oil separator for the removal of oil was an existing activity carried out at the site and had previously been assessed under the BRef review in 2021, and had not been listed in the permit as a directly associated activity. The use of API oil separators as a treatment process is an established technique at the site and is a recognised applicable technique for water treatment within the BRef for refining of mineral oils[5] and complies with the requirements of BAT 13 of the refining of mineral oils BATc.

We have reviewed the techniques proposed and consider them to represent BAT at this installation.

8.3.1.2 New pipework

The variation will result in new associated pipework that is located within the installation boundary. As noted the Cross-Haven pipeline is regulated under a different regime, not EPR and as such we have only assessed the risk of the pipework located within the installation.

[5] Best Available Techniques (BAT) Reference Document for the Refining of Mineral Oil and Gas, Section 4.24.4.1

The new pipe will be built to American Society of Mechanical Engineers B31.3 - Process Piping (ASME B31.3) standard and is recognised by the Health and Safety Executive (HSE) guidance on the storage of flammable liquids. The pipework will be subject to regular inspection and leak detection and have special procedures and/or temporary equipment to maintain performances when necessary to manage special circumstances such as spills as required by BAT conclusion, BAT 11(iv) of the Refining of Mineral Oil and Gas BRef.
We are satisfied that the measures and standard represent best practice and will minimise the likelihood of leakage from the associated pipework.

8.3.1.3 Storage of crude

The crude is to be stored in three existing tanks (9, 11 and 12). These tanks are already permitted to store crude, although have not stored crude since the site operated as a refinery. These tanks have however been used to store white oil service (gasoline, diesel and jet) in the more recent past. While the variation will not change this activity (and therefore would not introduce a new risk or impact pathway), we have reviewed the existing storage and containment arrangements as part of this variation.

Section 9.2 discusses the containment measures associated with these tanks and our regulatory approach.

8.3.1.4 Loading arm

The changes to the site include a new loading arm at one of the berths (Berth 2). Currently the site has three loading arms but two of these are for white oil services and the variation will allow two arms for crude oil services.

The applicant had supplied confirmation that the addition of the new loading arm would not result in the berths or the site exceeding 1 million m^3/year of loading/unloading of volatile liquid hydrocarbon compounds and as such the site will remain below the threshold where the BAT conclusion for vapour recovery (BAT 52) from ocean going vessels and associated emission limits applies.

8.3.2 Efficient use of raw materials, water and energy

Having considered the information submitted in the application, we are satisfied that the applicant will ensure that raw materials, water and energy is used as efficiently as possible.
The operator will continue to report on efficiency as already required in their permit.

8.3.3 Avoidance, recovery or disposal of wastes produced by the activities

The site has an existing effluent treatment plant (see section 8.3.1.1) to treat the waste generated from the crude, however the permit for Pembroke Refinery (EPR/YP3930EX) has also been varied to allow that site to accept and treat waste slop oil and dewatering effluent that would be generated at Pembrokeshire Oil Terminal. These waste would be sent to the Refinery either via pipeline or lorry.

Having considered the information submitted in the application, we are satisfied that the waste hierarchy referred to in Article 4 of the WFD will be applied to the generation of waste and that any waste generated will be treated in accordance with this Article.

We are satisfied that waste from the Installation that cannot be recovered will be disposed of offsite using a method that minimises any impact on the environment. Permit condition 1.4.1 of the permit will ensure that this position is maintained.

9. Site

9.1. Site Plan

There are no changes to the site boundary as a result of this variation. The site plan in the permit has not changed.

9.2. Site protection: potentially polluting substances and prevention measures

The operator has a duty to ensure that soil and groundwater are protected in order to meet the requirements of Articles 14 (1)(b), 14(1)(e) and 16(2) of the IED.

The main impact pathways associated with the changes on site are as follows:

1) Leakage from the new pipework

Details on preventive measures on leakage from associated pipework is discussed in Section 8.3.1.2.

The site is already permitted to store crude in tanks 9, 11 and 12 but has not done so since before the latest relevant BAT conclusions were published. The site is also permitted to use effluent treatment tanks 875 and 876. As such the variation does not pose any additional risks or new impact pathways.

Tanks 875 and 876

Tanks 875 and 876 are located next to the effluent treatment plant (see figure 1). The effluent (oily water) generated from the storage of the crude (in tanks 9, 11 and 12) will be pumped to tanks 875 and 876 for settlement prior to treatment at the effluent treatment plant (where recovered oil is sent back to tanks 875 and 876). The treated effluent is discharged via emission point C. Oil recovered from the settlement would be sent to Pembroke Refinery for further processing.

Tanks 875 and 876 are currently used for this purpose. The variation will not result in a change in the use of these tanks and therefore there is no change in environmental risks compared to the site's existing operation. Both these tanks have secondary containment in the form of bunds and are equipped with under tank liners.

Crude storage - Tanks 9, 11 and 12

The crude that is to be accepted on site (before being sent to the Pembroke Refinery) is to be stored in three tanks (tanks 9, 11 and 12) which are located on the western edge of the site. All three tanks have secondary containment in the form of an earth bund but the bunds for all three tanks are unlined. Tank 11 has no under tank liner, whilst tanks 9 and 12 do have under tank liners.

Given that the bunds were unlined and tank 11 does not have an under tank liner, there was a potential risk to ground posed by the tanks in the event that a loss from

primary containment failure occurs. However, these tanks are already permitted for the storage of crude oil under the current permit and had in the past stored crude when the site operated as a refinery. The variation while allowing the crude to be sent to Pembroke refinery, will not change the permitted storage of crude and the theoretical risk posed by the permitted operations after the variation would not increase compared to the risk from existing activities authorised on site.

BAT conclusion 51 of the Best Available Techniques for the Refining of Mineral Oil and Gas (2015) is to prevent or reduce emissions to soil and groundwater from the storage of hydrocarbon compounds, using one or more of the suggested techniques. As part of the schedule 5 response the operator had outlined how they apply techniques against BAT 51. Tanks 9, 11 and 12 fall within the scope of the COMAH containment policy. These have already been assessed under COMAH and we are expecting the submission of the Operator's COMAH improvement plan in 2026. The requirements of the COMAH containment policy, go beyond those of BATc 51 to demonstrate BAT. The Operator will be required to make any required improvements in line with the improvement plan and outcome of ongoing COMAH inspections.

Permit condition 3.2.1 requires that emissions of substances not controlled by emission limits (i.e., fugitive emissions) shall not cause pollution. Permit condition 3.2.3 requires that all liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container. These conditions are enforceable and we will take appropriate action if they are not complied with.

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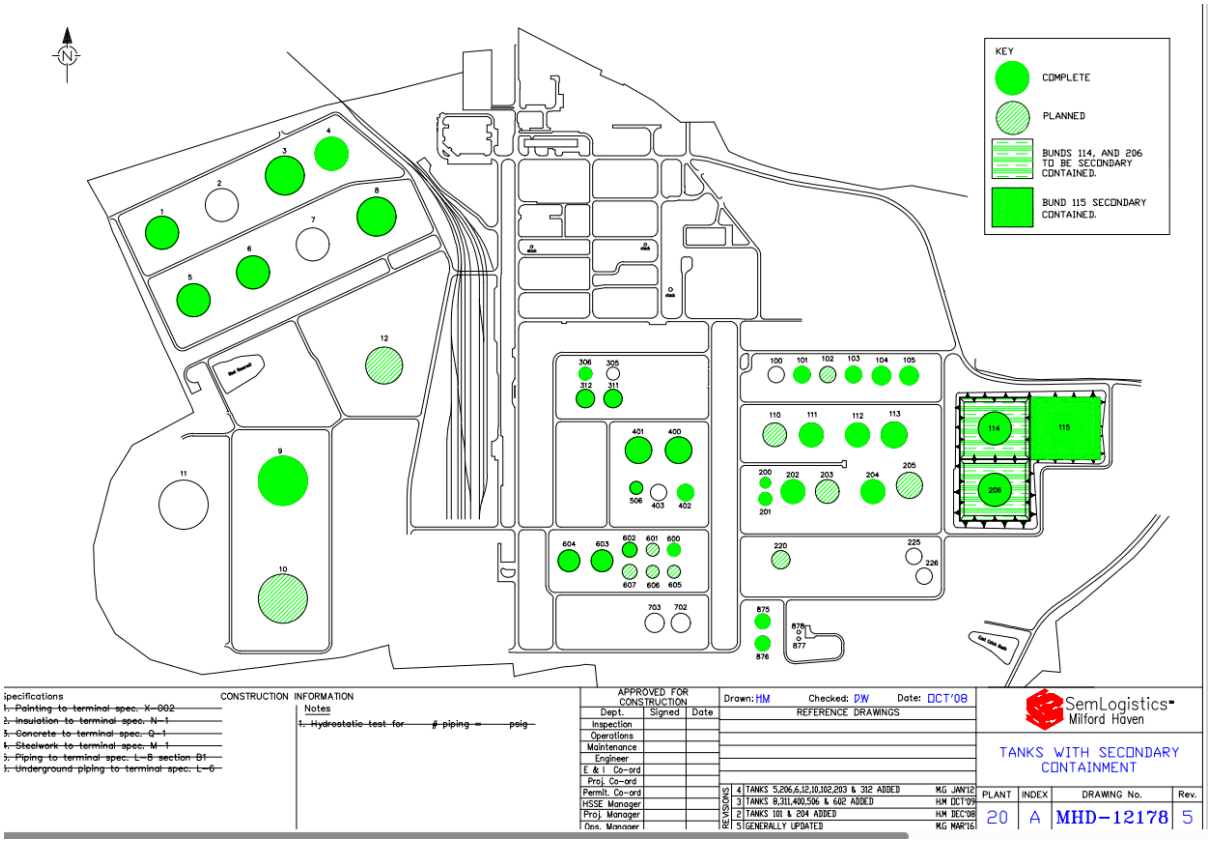

Figure 1: location and containment measure for the tanks from the document: "SemLogistics Milford Haven – Review of Refining Mineral Oil and Gas BAT Conclusions", 2015 (submitted as part of the Regulation 61(1) response)

10. Environmental Risk Assessment

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. All these factors have been considered during are determination and the relevant risks from this proposal are discussed in this and other sections of this document.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring ensuring a high level of protection.

In line with our guidance, the applicant has provided an environmental risk assessment with the application which identifies and the sources of key risks from the installation /

variation, possible pathways and receptors. This risk assessment and further assessments provided by the applicant and/or completed by NRW will be discussed in further detail below.

The Cross-Haven pipeline is regulated by The Pipe Line Safety Regulations 1996[6] and as such is considered out of scope of the EPR Permit and this variation. The risks assessed during this variation determination are those of the associated activities and changes on site.

10.1. Assessment of impact on air quality

There are no new channelled emissions to air as a result of the proposal and there will be no new changes to any of the existing emission points to air as a result of the variation. Fugitive emissions to air is discussed in detail in Section 10.3

10.2. Assessment of impact to surface and ground water

The installation includes two direct discharges to surface water. The applicant has outlined in their application document that the proposal would not result in an increase in volume of effluent discharge or will it exceed the existing emission limits set out in the permit. As such the variation will not increase the impact over the existing permitted emission levels.

A Water Framework Directive Compliance Assessment was not carried out as the variation would not result in a change in any emissions parameters or increase the volume discharged over the current permitted limits set out in the permit.

Emission Limits

There are no changes to the emission limits set out in the permit. The existing emission limits and monitoring parameters, which had been determined in the previous BRef review and IC9.20 will remain in the permit.

[6] The Pipelines Safety Regulations 1996

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

10.3. Fugitive emissions

The applicant has identified the following potential fugitive emissions in their environmental risk assessment:

- Emissions to air from leaks from tanks or associated pipework
- Emission to ground

The application details measures which will be in place for preventing and minimising fugitive emissions. The tanks 9, 11 and 12 are equipped with external floating roofs that minimises the risk of fugitive emissions to air.

Details of risk to ground water in the event of loss of primary containment are discussed in detail in section 9.2 of this document.

Permit condition 3.2.1 requires that emissions of substances not controlled by emission limits (i.e., fugitive emissions) shall not cause pollution. Condition 3.2.2 requires that a management plan shall be developed if pollution is subsequently identified.

10.4. Assessment of odour impact

The site already stores and handles crude on site. Tanks 9, 11 and 12 have external floating roofs equipped (aligned with BAT 49) to minimise fugitive emissions that could cause odour.
Given what is already carried out on site, the variation is unlikely to lead to any increase in risk of odour impact.

10.5. Noise and vibration assessment

There are sensitive receptors within the vicinity of the installation. The nearest residential receptors being located within 100 meters north of the installation in Waterston.

The applicant has identified the following sources of noise in their environmental risk assessment:

- Noise from the pumps used to transfer crude (24 hours a day all week)

The site already operates these pumps to transfer substances around the site in a near continuous operation. The operator has outlined in their report that the pumps will either be the existing pumps on site but with modifications to perform a reduced duty, or these would be replaced by smaller pumps.
Given the nature of the existing operation of the pumps, the variation is unlikely to lead to any new source of noise or changes that would increase the risk of noise impact over the sites existing operation.

Conditions 3.4.1 of the permit requires noise from the activities to be below that which could cause pollution outside the site. We are satisfied that this will be sufficiently protective in conjunction with the measures described by the applicant for minimising noise at the installation.

11. Impact on National Site Network Sites, SSSIs and non-statutory sites

The applicant has used the relevant screening distance criteria to identify relevant protected conservation sites which could be at risk from the proposal. We are in agreement with the screening distances used.

A full assessment of the variation application and its potential to affect the identified sites identified has been carried out as part of the permit determination process. National Site Network sites, Sites of Special Scientific Interest (SSSI) and non-statutory conservation sites will be discussed separately below.

11.1. The National Site Network

The following National Site Network sites are located within 10 km of the installation:

- Pembrokeshire Marine / Sir Benfro Foro (SAC) UK0013116
- Castlemartin Coast (SPA) UK9014061
- Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru (SAC) UK0014787
- West Wales Marine / Gorllewin Cymru Forol (SAC) UK0030397
- Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton (SAC) UK0014793

A Habitats Regulations Assessment (HRA) is not required because there is no new conceivable impact pathways to any of the National Site Network sites identified by virtue of the scale or location or nature of the project. There are no new point source emissions to air or water.

The proposal will not result in any changes to emissions to surface water or increase of emissions to air over the site's existing operations. As such there was no additional impact pathway as a result of the proposed changes over the site's existing operations.

11.2. Sites of Special Scientific Interest (SSSI)

The following SSSIs are located within 2 km of the installation:

- Milford Haven Waterway
- Scoveston Fort

As there are no new point source emissions to air or water discharge and there are no changes to the existing emission limits or discharge volumes as such there are no new impact pathways that would increase the risk to the designated features over what the site is currently permitted for.

11.3. Non-statutory conservation sites

The following relevant non-statutory sites are located within 2 km of the installation:

- 13 designated ancient woodlands

Given that there are no new emissions to air, the risk of fugitive emissions is not going to increase and there is no change in water discharge limits. There is no impact pathway from the proposal that will impact these non-statutory conservation sites.

Based upon the information in the application we are satisfied that there will be no adverse impact to the non-statutory conservation sites identified.

12. The Permit Conditions

12.1. Updating permit conditions during consolidation

We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit.

The operator has agreed that the new conditions are acceptable.

12.2. Incorporating the variation

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including additional information received as part of the determination process.

These descriptions have been specified in the Operating Techniques table (Table S1.2) in the permit.

12.3. Emission Limits

There has been no changes to any emissions limits to either air or water as a result of the changes on site.

12.4. Monitoring

There has been no changes to the monitoring requirements on the permit.

12.5. Reporting

We have not changed any of the reporting format as a result of this variation.

12.6. Raw Materials

We have not changed any of the specification to raw materials being received on site.

12.7. Pre-operational conditions

Based on the information in the application, we consider that we need to impose pre-operational conditions. Details of the pre-operational condition used can be found in Annex 1. See sections 8.2, for details on why we have imposed this pre-operational condition.

13. OPRA

The OPRA score has changed as a result of this variation. The new agreed score is now 171 (was 153). This will form the basis for ongoing subsistence fee's.

ANNEX 1: Pre-Operational Conditions

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
PO1	Export of crude to Pembroke Refinery via the Cross-Haven Pipeline.	Prior to operation of sending of crude oil to Pembroke Refinery via the Cross-Haven pipeline, the operator must submit to Natural Resources Wales for approval the finalised version of the amendments to the accident management plan

End of Document