



This form will report compliance with your permit as determined by an Environment Agency officer

Site	Dimlington Gas Terminal EPR/PP3237CR					Permit Ref	PP3237CR		
Operator/ Permit holder	PERENCO UK LIMITED								
Date	31/01/2024					Time in		Out	
What parts of the permit were assessed	See below								
Assessment	Report/data review	EPR Activity:	Installation	X	Waste Op		Water Discharge		
Recipient's name/position	Director - Perenco UK Ltd								
Officer's name	John Bullers					Date issued		12/02/2024	

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations (EPR). A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your [local office](#).

Permit Conditions and Compliance Summary			Condition(s) breached
a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	A	
	2. Management system & operating procedures	A	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	N	
	2. Land & Groundwater	O	
	3. Surface water	O	
	4. Sewer	N	
	5. Waste	A	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates & litter	N	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	N	
	3. Maintenance records	N	
	4. Reporting & notification	A	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk),

A = Assessed (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable, **O** = Ongoing non-compliance – not scored

MSA, MSB, TCM = Management System condition A, Management System Condition B and Technically Competent Manager condition which are environmental permit conditions from Part 3 of schedule9 EPR (see notes in Section 5/6).

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response			

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

Scope

The purpose of this CAR is as follows:

1. To confirm receipt of a letter from the operator (submitted via e-mail) on 31 January 2024. The letter was submitted in response to actions 1 and 2 in CAR ref: PP3237CR/0477445 (dated 05/10/2023) and actions 3 and 4 in CAR ref: PP3237CR/0478720 (dated 05/10/2023).
2. To discuss the content of the letter and assess compliance with the operator's environmental permit as required.
3. To set any new actions as required.

Action 1 (CAR ref: PP3237CR/0477445)

Provide a report to the Environment Agency detailing how Perenco UK Ltd (PUK) intend to prevent PFAS contaminated surface water being discharged via the pipe located at TA3925720175. The report must as a minimum, consider the feasibility of all the methods described in the Lithos report ref: 4672/1 (dated June 2023). The report must provide timescales for the implementation of the chosen methods. Deadline – 31/01/2024

Action 4 (CAR ref: PP3237CR/0478720)

Provide a report to the Environment Agency detailing how Perenco UK Ltd intend to prevent PFOS contaminated surface water being discharged via the pipe located at TA3925720175. The report must as a minimum, consider the feasibility of all of the methods described in the Lithos report ref: 4672/1 (dated June 2023). The report must provide timescales for the implementation of the chosen methods. Deadline – 31/01/2024.

Operator Response

On 31 January 2024 PUK submitted a letter (via e-mail) which stated the following:

1. The response below covers both action 1 and action 4 above, as the PUK response to the PFAS and PFOS contamination is the same at this stage.
2. Initial water analysis results as detailed in the Lithos report ref: 4672/1 dated June 2023 (the "Lithos Report") showed contamination of PFOS and PFAS which has been shared with the Environment Agency.
3. Following receipt of the Lithos Report, PUK engaged with specialist vendors to discuss the Lithos Report's options for water remediation. The specialists unanimously agreed that activated carbon is the most widely used and effective method for both PFAS and PFOS remediation in surface water and further they had experience themselves of successful use of this technology on sites in the UK and globally.

4. The following table, taken from the Lithos Report, sets out each proposed method and PUK's assessment of feasibility in green and red.

Technique	Feasibility
Pumping & disposal of water within the drainage system (including storm water pond and firefighting water pond)	LITHOS: Relatively easy, infrastructure already available. Disposal will be costly. COMPLETE. All localised sumps pumped out and disposed via licenced water carrier (ASCO)
Pump and treat using Granular Activated Carbon (GAC)	LITHOS: Easily implemented within the drainage system (either within manhole chambers or within on-site filters). Analytical data indicates the PFASs are typically short chain meaning the GAC may not be suitable. Selected as preferred remediation method, specialist vendor confirmed activated carbon IS suitable for both PFAS and PFOS treatment. Development of activated carbons has come a long way in recent years with products on the market specifically aimed at typical PFAS and PFOS compounds and a single product being capable of removing both simultaneously.
Reverse osmosis (RO) and nanofiltration	LITHOS: Significant on-site constraints associated with the gas terminal infrastructure exist, a large-scale operation may prove difficult and be impractical. • Technology not widely used on large scale. • Availability of this technology is limited. • Not likely to be scalable for our needs.
Ion Exchange Resin (IER)	LITHOS: Potentially successful based on the PFASs identified. Likely easily implemented around the existing gas terminal infrastructure. Effectiveness can be greatly reduced by the presence of natural organic matter and may therefore not be suitable. • Technology not widely used at industrial sites. • Not considered as effective as activated carbon due to the factors mentioned above.
Flocculation/precipitation	LITHOS: Potentially suitable for use in the on-site ponds. Unlikely to disrupt to site operations. Concentrations within the ponds may not be high enough for the technique to be effective. • Reported levels of contamination not suited to the data available on this technology. • Activated carbon considered industry standard for PFOS/PFAS treatment.
Electrochemical oxidation	LITHOS: Analytical data indicates the PFASs are typically short chain, therefore this treatment will likely prove unsuccessful. • Limited experience and data on this technology. Data suggest it is not effective. • Added complexity with electrical supplies and instrumentation.

5. PUK have instructed Chemviron (Specialist) to conduct a trial (taking 5-7 days) using an activated carbon adsorber, the results of which will inform the feasibility of full-scale implementation in 2024.

6. The trial is scheduled to take place by mid-February 2024 with the results of the trial expected by end February 2024 as sampling results have an approximately 7-day turnaround.

Regulator Response

The response is satisfactory and covers the requirements of Action 1 in CAR ref: PP3237CR/0477445 and Action 4 in CAR ref: PP3237CR/0478720. As such actions 1 and 4 can be considered complete. To ensure that the trial is completed the following action must be completed by the given date.

Action 1 – Submit the results of the trial of the activated carbon adsorber described in points 5 and 6 of the letter received on 31/01/2024. Deadline – 08/03/2024.

Action 2 - (CAR ref: PP3237CR/0477445)

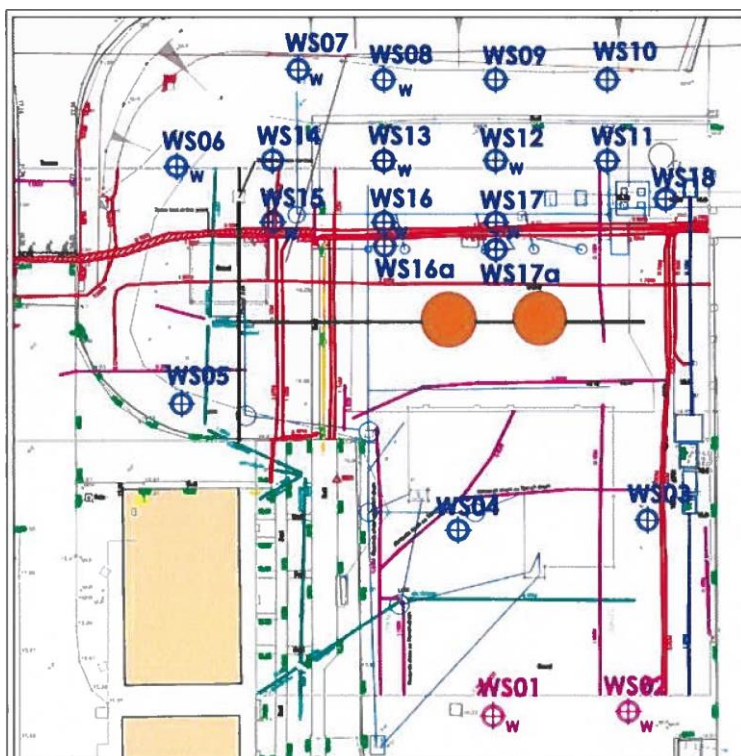
Provide a report to the Environment Agency detailing how Perenco UK Ltd intend to demonstrate that the PFAS contamination identified in the soils and shallow ground water is not migrating off site. Deadline – 31/01/2024.

Operator Response

On 31 January 2024 PUK submitted a letter (via e-mail) which stated the following:

1. PUK will carry out repeat sampling of several boreholes around the spill perimeter and compare results with those in the Lithos Report. These boreholes were established and sampled by Lithos during the immediate spill response.
2. We will resample at the locations below:

WS05 & WS06 (west)
WS01 & WS02 (South)
WS07 & WS10 (North)
WS11 & WS18 (East)



Regulator Response

Further information was requested from the operator in response to this proposal on 12/02/2024. Further consultation with the EA's Groundwater and Contaminated Land Team may also be required. As such compliance with this action will be assessed at a future date once the appropriate information has been supplied and assessed. Action 2 described in CAR ref: PP3237CR/0477445) remains open.

Action 3 - (CAR ref: PP3237CR/0478720)

Demonstrate that there is no PFOS contamination at a concentration above 50mg/m3 within the wastewater being removed from tank T06. Deadline – 31/01/2024.

Operator Response

On 31 January 2024 PUK submitted a letter (via e-mail) which stated the following:

T06 (oily water sewer) was sampled in January 2024 and the results are below 50mg/m3 :

Analysis method	Result ng/l (6/1/24)	Converted mg/m3	Converted mg/l
Total PFOS (1763-23-1)	278	0.278	0.000278

Regulator Response

Important Note – In the original CAR form PUK were asked to demonstrate that the concentration was below 50 mg/m3. This was an error as the concentration should have read 50 mg/kg.

As the concentration of total PFOS has been shown to be 0.000278 mg/l (mg/kg) the amount of PFOS in the sample taken from tank T06 is well below the threshold. As such, action 3 can be considered closed.

Section 3- Enforcement Response

Only one of the boxes below should be ticked

You must take immediate action to rectify any non-compliance and prevent repetition.

Non-compliance with your permit conditions constitutes an offence* and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

**Non-compliance with MSA, MSB & TCM do not constitute an offence but can result in the service of a compliance, suspension and/or revocation notice.*

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

We will now consider what enforcement action is appropriate and notify you, referencing this form.

Section 4- Action(s)

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence* and we may take legal action against you.

● We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.

● Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

● A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for further information

A breach of permit condition **MSA, **MSB** & **TCM** is not an offence but may result in the service of a notice requiring compliance and/or suspension or revocation of the permit.*

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

MSA, MSB & TCM are conditions inserted into certain permits by Schedule 9 Part 3 EPR

MSA requires operators to manage and operate in accordance with a written management system that identifies and minimises risks of pollution.

MSB requires that the management system must be reviewed, kept up-to-date and a written record kept of this.

TCM requires the submission of technical competence information.

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

A permit holder can challenge any part of the CAR form by writing to the Environment Agency office local to the site within 28 days of receipt. If the issue cannot be resolved by the local office, a permit holder may request an appeal of the regulatory decision by emailing enquiries@environment-agency.gov.uk within 14 days of receipt of the outcome.

If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary and Health Service Ombudsman phone their helpline on 0345 015 4033.