



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

Site	Preston New Road Exploration Site EPR/AB3101MW		Permit Ref	UP3431VF		
Operator/ Permit holder	Cuadrilla Bowland Limited					
Date	15/01/2019		Time in	09:15	Out	15:30
What parts of the permit were assessed	Environmental Management & Monitoring Plan - Leak Detection & Repair					
Assessment	Audit	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	HSE & P Manager					
Officer's name	EA Officers		Date issued	21/02/2019		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. 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

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	A	
	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	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
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	A	
	4. Reporting & notification	N	
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

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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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.

An audit was carried out on the operator's Leak Detection and Repair (LDAR) programme. A specific leak detection and repair procedure (ref:HSE-CORP-PRO-032) provides details on how leaks are detected and prioritised for repair.

This is the second of three audits to be carried out on aspects of the operator's Environmental Management and Monitoring Plan (EMMP). The third EMMP audit will be conducted at the end of February that looks at the operation of the flare during the well testing phase.

No non-compliances were recorded during this inspection.

The operator has produced an LDAR Inventory of the components on site which have the potential to leak natural gas. The Inventory describes each component, the equipment group location (e.g. flare area), type of fluid handled, capacity and a relative risk rating (based on the capacity and component type). This risk rating is in line with the operator's procedure for Leak Detection and Repair. The Inventory is reviewed when equipment is changed on site and the procedure is reviewed every 12 months.

The Leak Detection and Repair programme has been reviewed by Environment Agency gas management specialists and determined as fit for purpose.

The operator undertakes LDAR monitoring fortnightly and monitors every item on the LDAR Inventory. The risk rating calculated in the inventory is not currently used to stratify the monitoring. During the audit the operator carried out LDAR monitoring in the flare area and a spot check of the components monitored (for example flare area common line – entry to flare) found that they were included on the LDAR inventory. Tags were fitted to identify the components where minor leaks were found during monitoring on 14 January 2019.

The presence of minor leaks following installation and commissioning of gas management equipment is possible and provides justification for the leak detection monitoring at the current frequency.

Monitoring is completed on a section of the site and then any identified leaks are repaired. The time taken to repair a leak is undertaken on a case by case basis and depends on the magnitude of the leak, health and safety implications and criticality of the component. Once a leak is repaired the component is retested and the fix is complete when it measures 0ppm of methane.

Procedure HSE-CORP-PRO-032, references standards EN 15446 and USEPA M21 that must be implemented in any leak detection and repair programme. Both documents were available. The operator used the standard when explaining the process of calculating emissions from measured results to demonstrate their understanding of the standards.

Training records were available to demonstrate proficiency in using Toxic Vapour Analysers (TVA)('sniffer') analysers. This is the handheld instrument specifically used to detect leaks in gas pipework on site.

Training-records for the programme were not available, although the operator's demonstration of the process of leak detection indicated both training and competence.

Action 1: The operator must document competency requirements and hold records of training for the LDAR programme and reference within the site management system.

Recommendation 1: At the time of this audit one member of staff has had training for the LDAR programme. In order to provide resilience, Cuadrilla should train a second person if not already done so.

There is a log book available for use, recording the maintenance and calibration of the TVA, demonstrating reliability.

There were electronic records for the Quality Assurance / Quality Checks before and after use of the TVA instrument. These were produced in both electronic and printed form. The records provided the traceability required by the permit and applicable standards for the management system.

Calibration gases and related equipment is available on site for added quality assurance of the TVA instrument as required by the standard EN 15446.

The operator demonstrated that their procedures meet the calibration and related Quality Assurance / Quality Check requirements prescribed in the standards, before using the TVA.

The operator has a register of assets classified according to their risk of leaks. The risk is the product of the type of asset and the throughput of methane. The register is maintained electronically and there was a printed copy available. There were approximately 1,000 items with the potential to leak, whilst the operator uses a system of colour coding risks to make the register easy to use, i.e. a red marker indicates the highest risk.

There were records available to show that the operator has evaluated the performance of the TVA. The records are maintained electronically. The manufacturer also performs some performance tests during the annual service and calibration. However, whilst the first service was reportedly in August 2018, the service and calibration report was not available at the time of the audit.

Action 2: The service and calibration records for the TVA need to be available. It is recommended that these records are maintained electronically within the management system.

Before starting the measurements the operator performed a background check before entering the zoned area where the measurements take place.


The operator performs the measurements in a controlled, deliberate and slow manner, for each particular type of apparatus. When the TVA indicated a leak, the operator held the probe over the leak for the required time, and until the reading for the leak stabilised.

When the operator finds a leak, the details are recorded on a form which is then used to update the electronic records in the management system. The asset is tagged with the details of the leak and the maintenance team is directed to make a repair. The operator keeps a register of all leaks. Once the leak is repaired, the maintenance team using a soap solution to screen the repair whilst the operator checks the repair using the TVA. The operator demonstrated this process at a section of pipework where a leak of 3.1% methane was measured on the 14th January. This leak was repaired within 24 hours and the operator demonstrated how the TVA is used to verify a repair.

The operator had not considered the measurement of uncertainty when calculating the mass emissions from any leak.

Action 3: The operator needs to consider the measurement uncertainty and express the mass emission results with a corresponding margin of error.

The third EMMP audit on flare operations will be conducted at the end of February, checks will be performed to ensure the actions in this report are completed.

 Environment Agency	EPR Compliance Assessment Report	Report ID: UP3431VF/0325788	
This form will report compliance with your permit as determined by an Environment Agency officer			
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Operator/ Permit	Cuadrilla Bowland Limited	Date	15/01/2019

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.	
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

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.

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?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. 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.