Cyfoeth Naturiol Cymru Natural Resources Wales

Compliance Assessment Report

Report ID: CAR_NRW0032190

This form will report compliance with your permit as determined by an NRW officer					
Site	Felindre, Gas Compressor Station	Permit Ref	RP3232LD		
Operator/Permit holder	National Grid Gas PLC				
Regime	Installations				
Date of assessment	31/08/2017	Time in	10:00	Out	13:30
Assessment type	Audit				
Parts of the permit assessed	Improvement Conditions - Table S1.3				
Lead officer's name	Jenkins, Nicholas				
Accompanied by					
Recipient's name/position	Neil Billingham/ Senior Engineer	Date issued	22/09/2017		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). 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	CCS Category	Condition(s) breached
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	A	

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.
A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,
O = Ongoing non-compliance, not scored.

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

If the Number of breaches recorded is greater than zero, please see Section 3 for 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 (eg. 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 advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Attendees

Andrea Hamilton; Gary Matthews; Neil Billingham – National Grid Gas Plc

Nick Jenkins – Natural Resources Wales

Agenda

1. Introductions
2. Improvement conditions
3. AOB – Alert system failure; National Grid gas liaison meetings; commissioning of the electric drive; query on fugitive emissions
4. Site Tour

1. Introductions

Introductions were made around the table and the role of two teams were described i.e engineering/environmental team and environmental assurance/compliance team. National Grid Gas Plc (NGG) gave an overview of the site and advised that to year to date, the site has operated for approximately 14 hours.

2. Improvement Conditions

The purpose of the meeting is to discuss the sign off of 6 improvement conditions outlined in table S1.3 of NGG's permit. The table has been reproduced below with comments relating to each condition and confirmation as to whether there was compliance with condition 2.5.1 of the environmental permit, which states that 'the operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency'.

Key dates for the ICs are the permit issue and the completion of commissioning, these are July 2007 and

December 2015 respectively.

Reference	Requirement	Date	Compliant Y/N	Comments
IC1	A written report shall be submitted to the agency detailing the results of a noise assessment. The assessment shall examine noise levels at all nearby sensitive receptors during various operating scenarios. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary.	6 months from completion of commissioning	Y	AECOM report submitted to NRW 20/04/16. CAR form ref 6114 acknowledges the monitoring.

IC2	The Operator shall undertake a review of vented and fugitive gas emission from the installation. The review shall address the following issues:
	• Identify each potential source of such emission, quantify and assess the impact on the environment.
	• Consider the options to minimise such emissions, giving consideration (but not limited) to the following:
	  • Current vent delay philosophy
	  • Emissions of odorised gas (if any)
	  • the number of compressor system vents
	  • the natural gas venting philosophy
	  • discharge sequencing to prevent inappropriate pressure loads on vent systems
	  • the use of gas recycling or recompression
	  • use of vented gas as a fuel
	  • gas storage, flaring or other alternative venting techniques
	Where improvements are identified propose a timetable to implement such improvements. A summary of the review shall be submitted in writing to the Agency. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary.
	The improvements identified shall be implemented by the operator from the date of approval by the
		12 months from completion of commissioning	N	NGG commissioned GL Noble Denton to undertake the work. It produced a report entitled 'National Transmission System – Compressor Survey Fugitive Natural Gas Emissions Measurements' at the Felindre Compressor station during 15-16 December 2010. No records can be found either by NGG or NRW to suggest that this document was submitted. Also, no evidence was supplied to implement the improvements identified in the report.

	Agency			
IC3	The Operator shall update the documented system of environmental management for the installation with a procedure for the monitoring and management of noise emissions. Upon completion of the procedure a summary of the document shall be submitted to the Agency in writing. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary. The procedure shall be implemented by the operator from the date of approval in writing by the Agency	12 months from completion of commissioning	Y	Although NGG has 2 noise management procedures these were produced before IC1 was submitted therefore it is unclear as to whether the outcomes of the assessment were considered in its procedures. Nevertheless a summary document was submitted to NRW 25 April 2016.
IC4	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Combustion Technical Guidance Note. Upon completion of the plan, a summary of the document shall be submitted to the Agency in writing.	[1 year from permit issue]	N	Site Closure Plan was produced by Enviros October 2007 and updated January 2014. No evidence to suggest that this was submitted in line with the permit requirements.
IC5	The Operator shall carry out a waste minimisation audit of the installation that would be considered as part of the National Grid Gas network wide audit. The assessment shall have regard to the Agency Combustion Technical Guidance Note, Section 2.4.2. The audit report shall provide information on any lines and operations identified as causing a process loss, specifying for each, the amount lost (tonnes/year) and the percentage recovered in process or recycled. A summary of the audit shall be sent to the Agency in writing together with a timetable to implement any necessary changes identified. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary. The changes identified shall be implemented by the operator from the date of approval by the Agency.	[2 years from permit issue]	N	NGG submitted a letter 18 November 2009 advising that the installation was not operational but provided waste figures based on a similar site. NGG advised that a report would be issued 31 January 2011 unless agreed with the Agency. A report was submitted to NRW 19 August 2014 which was outside of the requirement to submit. No holding letters were found on our systems.
IC6	The Operator shall produce an Energy Efficiency Plan for the	[2 years from permit issue]	N	18 November 2009 letter to

	installation that would be considered as part of the National Grid Gas network wide plan. The plan shall have regard to the Agency Combustion Technical Guidance Note, Section 2.7.2.		advise that report would be issued 31 January 2011. Report was produced 27 April 2015 with no reference to any subsequent reports.

Although NGG has now submitted all the reports required under table S1.3, we could not find any evidence to suggest that some of the ICs were received by EA/NRW in the required timescale. The environmental risk for this breach of permit is considered as no impact but there is still a breach which should be scored accordingly. Due to the changes in the filing systems since NRW was established and the concerns that some of this data may have been lost in the transition, we will not be scoring NGG. Nevertheless, this exercise is helpful as any further reviews of the permit will require an updated improvement condition table to be included.

3. Any other business

Alert System Failure – 25 August 2017, NGG notified NRW that the Alert system that monitors the emissions from the gas turbine at the site and holds NGG's PEMS system had failed. A result of this NGG were not able to monitor or report any combustion emission from the site but the site had been made unavailable for use for Grid pumping of gas. NGG advised that the Alert system supplier has been mobilised and they were building a replacement system with the intention of having it on site at Felindre and operating by mid next week.

There is a requirement within the environmental permit for NGG to notify NRW 'without delay following the detection of any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution'.

We discussed whether the failure of the system would merit a notification based on the description above but NGG advised that it notified NRW as courtesy rather than in accordance with the permit condition. This is welcomed and we would hope that this continues.

NGG Liaison Meetings – NGG and the its environmental regulators meet annually (usually in May) to discuss its strategic view going forward. In preparation of the meeting NGG issue a 'Network Review' document which covers the following headings: environmental priorities on the transmission system; compressor utilisation; reduction of emissions and its investment strategy. This is an opportunity for the regulators to review and advise on any amendments or inclusions. It's also an opportunity to discuss any changes on the horizon which may influence the way the site is regulated e.g. changes to the BRef or MCPD etc that NGG may not be aware of.

NRW has been part of the meetings and it was the responsibility of the site regulator of the Felindre installation to attend. Although we would like to consider the network review document we do not feel that our attendance at this point would be necessary. NGG advised that in their permits for its sites in England and Scotland, there is a requirement to submit the Network Review document. This is not the case in Felindre's current environmental permit.

Commissioning of the Electric Drive – In its 2017 Network Review document NGG, one of its current priorities include: Demonstrating the capability of the two newly commissioned units at Felindre and progressing the commissioning of the electric drive at this site.

This drive is defined in schedule 1 of the environmental permit as a directly associated activity. In NGG's application for the permit it stated that:

The installation will operate primarily using an electrically powered Variable Speed Drive (VSD) that will have no point source emissions to air. The VSD will act as the lead unit, with predicted operation of 8760 hours per year. Two turbines fired on natural gas will provide backup. These units will operate only when there is an electrical supply failure or when the VSD is unable to meet the compression requirements for the installation.

NGG advised that the electric drive has never been commissioned as there have been limited amounts of gas flow. The project at Felindre will be to bring the drive out of its current mothball status and create a pipework loop to enable gas to be pumped around for the drive to be commissioned. The time frame on this is 'within the next couple of years'.

There appears to be confusion around the proposed operation of the VSD and the gas fired turbines as outlined above but NRW do not envisage any issues around compliance with the permit. We would also welcome updates on the project when appropriate.

Query on fugitive emissions – The decision document produced to clarify our decision in granting the environmental permit, clearly outlines that 'approximately 160 tonnes of natural gas per year is lost through fugitive emissions for the whole network between each compressor station'. I advised, incorrectly that this applied to the Felindre site and not as a whole network. NGG advised that this was extremely unlikely for the Felindre site and even an over estimate for the whole NGG network (figures for 2016 suggested that 55T of gas was lost through fugitive emissions).

4. Site Tour

Following the meeting we walked the installation. It was very quiet with no gas being compressed at the installation. It was also very clean. We toured the turbine hall but also viewed the electrically powered VSD. Work was underway on bringing the unit into the commissioning phase.

[END]

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	**Report ID: CAR_NRW0032190**

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

Site	Felindre, Gas Compressor Station	Permit Ref	RP3232LD
Operator/Permit holder	National Grid Gas PLC	Date	31/08/2017

Section 3 – Enforcement Response

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.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

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 verbally or 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.

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 that 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 Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW 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 (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW 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 NRW 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 fifteen working 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 officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language
If you would like this form in Welsh please contact your Regulatory Officer.