Cyfoeth Naturiol Cymru Natural Resources Wales

Compliance Assessment Report

Report ID: CAR_NRW0026309

This form will report compliance with your permit as determined by an NRW officer					
Site	Milford Haven Energy	Permit Ref	AP3136UA		
Operator/Permit holder	Dragon LNG Ltd				
Regime	Installations				
Date of assessment	15/07/2016	Time in	09:30	Out	16:40
Assessment type	Audit				
Parts of the permit assessed	See Agenda				
Lead officer's name	Evans, Gary Lewis				
Accompanied by	Jenkins, Nicholas				
Recipient's name/position	Balachander Veerasamay/ Environmental Advisor	Date issued	30/08/2016		

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
A1 - Specified by permit	A	
F1 - Amenity - Odour	A	
F2 - Amenity - Noise	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

Paul Howells – (Dragon) HSE Manager

Balachander Veerasamy – (Dragon) Environmental Advisor

Kerry Watkins – (Dragon) Compliance Engineer

Andy Scott – (Dragon) Reliquefaction plant project manager – only present for agenda point 1

Jane Molloy – (Dragon) HSE Advisor – only present for discussion around COMAH (not presented in this CAR)

Gary Evans – (Natural Resources Wales) Technical Specialist Industry Regulation

Nick Jenkins – (Natural Resources Wales) PPC Officer

Agenda

1. Update on re liquefaction plant (Pre Operational) & Improvement Programme (Cogen)
2. Noise and Odour Complaint Investigation/Procedures
3. Effluent Discharge Results (Including inspection of all discharge points)
4. Installation Permitted Boundary (Review Schedule 7)
5. Update - Energy Efficiency Directive
6. Dragon LNG Habitat Management (overview)
7. AOB

1. Update on re liquefaction plant & Improvement Programme (Cogen)

   Andy Scott was introduced as the reliquefaction plant project manager and gave a presentation to the progress of the reliquefaction plant. Andy explained that this is the biggest plant of its kind built onshore but similar technology is used on the LNG tankers. Where it differs is that the Dragon plant will air cooled using a heat exchanger which consists of 9 fans (3x3 bank) whereas tankers are water cooled.

   We were provided with an explanation of the 3 stage compander system which is a key part of the system that cools and compresses on the first two stages and finally expands the boil off gas (BOG) before returning it as product back to the holding tanks. The plant will be driven by a variable frequency drive motor in order to limit the inrush current.

   The production capacity of the plant has been limited to the existing two tanks and therefore an increase in

storage will require an extension of the reliquefaction plant.

The end of commissioning for the plant was originally expected to be January 2017 but this has been extended until the first week of April 2017. Dragon still expect that the dual operation of the co-generation and the reliquefaction will cease at the end of June 2017, although any extension past this date NRW will need notification. Pre operational reference 1 requires the operator to submit a written commissioning plan at least 2 months prior to the commencement of commissioning. Dragon advised that the start of commissioning is expected to be the end of February/beginning of March 2017. Therefore NRW would require the submission of the commissioning plan at the end of December/beginning of January 2017.

The co-gen plant is to be sold back to the manufacturer and the operator advised that there is no plan to replace it. Dragon queried whether there will be a requirement to remove the co-generation from its environmental permit when it ceases operation in June 2017. This decision is the responsibility of the operator and we would recommend that Dragon considers how its EPOPRA profile changes with the removal of the two activities that form part of the co-generation process.

Dragon submitted its operational data on efficiency which has been created to satisfy improvement condition 9.8. This was received 22 July 2017. This data will be assessed separately and an associated CAR form will be produced.

2 Noise and Odour Complaint Investigation/Procedures

Odour

30 June 2016, NRW notified Dragon of an odour complaint observed in the Hakin area, approximately 4kms west of the installation. The description of the complaint was as follows:

air was foul this morning and was making them sick, complainant unsure where the smell was coming from.

NRW notified all of its installations in the locality and asked that each operator investigates the complaint and provides a response. Dragon responded 1 July following an investigation but was not able to find a source of odour that may have resulted in the complaint description. Dragon do not have an odour management plan (OMP) and can be requested to submit one to NRW when we consider that activities at the installation are giving rise to pollution outside the site due to odour. At this stage NRW to not require Dragon to submit an OMP.

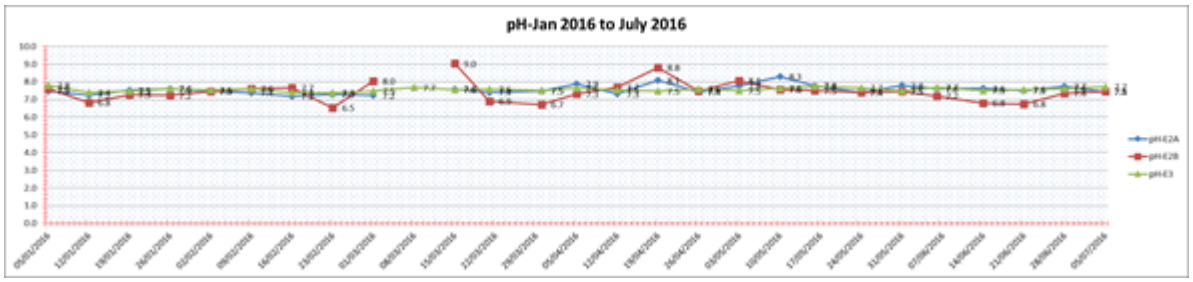
Noise

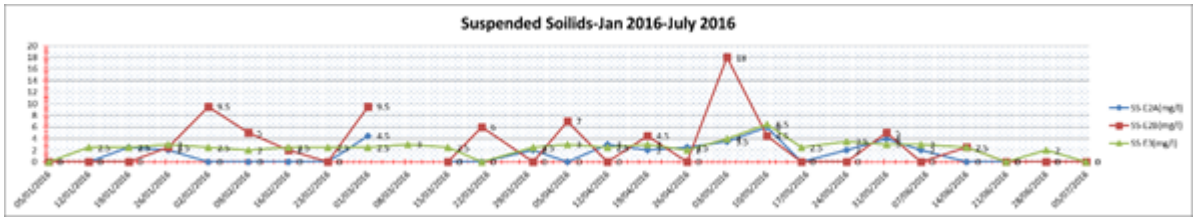
Dragon has submitted a Control of Pollution Action 1974, Section 61 notice to Pembrokeshire County Council for the control of noise during the construction of the reliquefaction plant. This notice has now been provided to NRW and will form part of the regulation of the environmental permit under section 3.4 noise and vibration. The local authority are responsible for the notice and we will work with it to ensure that the operator does not pollute the environment. Currently the operator is undertaking sound monitoring at six receptors, twice a day and is having quarterly meetings with the local environmental health officer (Diana Turberville) to review its working

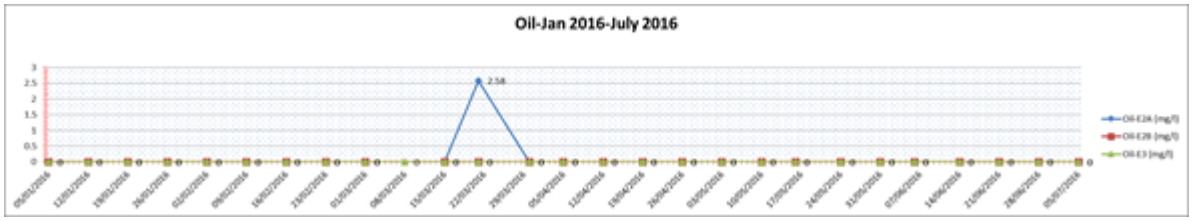
practices and sound levels.

3 Effluent Discharge Results (Including inspection of all discharge points)

We discussed the results from 2016 to date for the determinands specified in the permit i.e. suspended solids; oil and pH. There was no inclusion of total oxidised nitrogen and the reason will need to be clarified. For the three deteminands which have been graphed below, there were no breaches outside of the emission limits. Dragon advised that the missing data corresponded to the co-gen shut down in March.







NRW requested photographs of the water discharge points and these were submitted 17 August 2016. They will be used in the forthcoming Operator Monitoring Assessment provisionally booked for November 2016. The description of the photograph for each discharge point has been provided by Dragon:

E2 (A)-North Pit Access:

E2 (B)-South Pit Access:

E3-FireWater Pond Sampling Point Access:

W1-AGI Pond Discharge:

When is a reservoir a reservoir?

NRW and Dragon have been in discussions with Matthew O'Brien, NRW's reservoir safety officer regarding whether the fire safety pond and whether it would need to be registered with us. The Reservoirs Act 1975 only applies to large raised reservoirs and these are regulated by us

- a dam, embankment, wall or other structure is designed or used for collecting and storing water, and
- the raised structure is capable of holding 10,000 cubic metres, or more, above the natural level of any part of the surrounding land

10,000 cubic metres is approximately 2.2 million gallons, and roughly equivalent to four Olympic sized swimming pools. The surface area multiplied by the height of dam or embankment will provide an initial indication of its capacity. For example, a reservoir which measures 100 x 100 metres with an embankment 1 metre high may hold 10,000 cubic metres if all the sides are vertical. We recommend a professional opinion be sought if you have any doubt as how to calculate capacity.

Reservoirs are often referred to by different terms and have a wide variety of uses, these could include: water storage; irrigation ponds; waste lagoons; ornamental lakes; recreation/ amenity; flood storage areas; hydropower generation.

Dragon originally estimated their firewater pond had a volume of 10,086 cubic metres but this has been recalculated as 9,600 cubic metres following the re-profiling of the pond sides. This estimation was undertaken by Braemer Howells and Dragon will provide evidence to show how the contractor has calculated this figure. This will be shared with Mathew O'Brien and a response provided.

4 Installation Permitted Boundary (Review Schedule 7)

In light of the proximity of the Dragon installation to the proposed energy from waste facility at Blackbridge, we sought clarification on Dragon's permitted boundary and whether there is likely to be any change that would need to be included in a permit variation. Dragon confirmed that there will be no need to vary the current installation boundary.

5 Update - Energy Efficiency Directive Article 14 of the Energy Efficiency Directive may require operators of certain types of combustion installations to carry out a cost-benefit assessment (CBA) of opportunities for co-generation or supplying a district heating or cooling network when they apply for a new environmental permit, or for a variation when substantially refurbishing an existing installation.

NRW does not currently have its own guidance with regards to CBAs but we do have draft Environment Agency guidance that all UK Regulators are using in the interim. This was supplied to Dragon 14 July 2016. NRW are unclear whether Dragon would consider the replacement of its co-generation plant and wanted a discussion as to whether EED applied. Dragon confirmed that it does not have a plan to replace the current co-gen plant.

6 Dragon LNG Habitat Management (overview)

The social and economic well-being of the people of Wales, of both current and future generations, depend on securing and improving the health and resilience of our ecosystems and the many services they provide. Dragon has supported this ethos in the work they have undertaken both within and outside the boundary of the installation. Some of the work includes:

- The Dragon LNG Darwin Centre Experience – which supports STEM (Science, Technology, Engineering and Maths) education in all Pembrokeshire Schools and Pembrokeshire College since 2005, with more than 33,000 young people taking part. It donates a hands-on day of STEM outdoor activity and classroom sessions for every final year in all junior schools;
- Construction of homes for reptiles; bats; badgers and bees with the latter gathering pollen from the adjacent meadow where an array of wildflowers are grown;
- Rearing of rare sheep breeds (Balwen) by working in conjunction with a local farmer and the Rare Breed Survival Trust (Started in March 2016)

7 AOB

Operator Monitoring Assessment (OMA)

We are intending to undertake an OMA for water discharges at the Dragon installation in Quarter 4 of 2016/17. The guidance notes have been provided to Dragon for reference and we will arrange a suitable date before the end of September 2016.

[END]

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	**Report ID: CAR_NRW0026309**

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Site	Milford Haven Energy	Permit Ref	AP3136UA
Operator/Permit holder	Dragon LNG Ltd	Date	15/07/2016

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.

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.