Compliance Assessment Report

Report ID: CAR_NRW0032310

This form will report compliance with your permit as determined by an NRW officer					
Site	Barry Silicon Installation	Permit Ref	KP3734SH		
Operator/Permit holder	Navigator Terminals Windmill Limited				
Regime	Installations				
Date of assessment	19/05/2017	Time in	10:00	Out	16:00
Assessment type	Audit				
Parts of the permit assessed	LDAR Monitoring & AMP				
Lead officer's name	Kemp, Andi				
Accompanied by					
Recipient's name/position	Andy Jackson/ Terminal Manager	Date issued	17/10/2017		

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**

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

Purpose of Compliance Assessment

In May 2017 a site inspection took place to follow up on a recommendation to review the accident management plan for sub COMAH events and to witness a contractor perform the quarterly monitoring requirement of the LDAR programme.

Accident Management Plan

The recommendation made in the June 2016 CAR1 was to ensure the operator included sub COMAH events in their accident management plan – the major events are covered by the sites COMAH safety report. The operator was progressing a risk matrix, covering a list of potential incidents. By May 2017 sufficient progress had been made to submit this to the regulator.

Source, pathway, receptor linkages have been included. Mitigation procedures, actions and tools are described, followed by a risk ranking based on a simple numerical grid as defined by the product of severity and likelihood. The ranking of the event likelihood and severity is explained on a second document.

Looking at the list of events assessed, it appears that the most relevant sub COMAH events have been considered, for example:

- Vehicle oil / fuel leak
- Punctured IBC
- Out of specification lagoon contents released
- Loss of line contents during maintenance

Taking these example events, in some cases e.g. vehicle fuel leak, there is no prevention measure; in others e.g. loss of line contents or out of spec lagoon release, there are procedures to follow, in these cases isolations and line clearing and locked discharge valve.

Recommendation 1 October 16 2017: *For the case of fuel leaks, where no credit or procedure is given in terms of initial prevention, the operator could expand a vehicle checklist, for example, to include visual inspection for fuel, oil or other fluid leaks.*

Moving on to the mitigation column, again looking at the four examples above, there are described various infrastructure designs and / or procedures to follow. For example a description of the secondary and tertiary containment and drainage system; IBCs stored in bunded area; spill response procedure: NTW-OPS-_PROC0034 – this was assessed previously.

The last column is headed *Actions* and presumably this is for any highlighted deficiencies and improvements identified; such as routine to hydraulically test lagoon discharge valve and review pressure testing of delivery system for shipping operations.

The overall risk is determined as the product of severity and frequency as detailed on the supporting risk matrix spreadsheet. Here frequency starts off < once per 5 years moving to a fourth column of > once per year. Severity is divided into Safety, Environmental, Operational and Customer. This gives a 4 x 4 grid, with numbers 1 and 2 being green (low risk), 2 and 4 being yellow, 6, 8 and 9 are orange and lastly 12 and 16 are red and the highest risk. These colours appear on the main assessment to give an instant view of how many at low, medium, medium high and high risk events there are. While it may be apparent to the operator which severity aspect(s) are included or relevant to the risk ranking, this fine detail is not obvious to the regulator. NRW will confine its interest to environmental matters.

Action 1 October 16 2017: *The operator to clarify the following points with regard to the assignment of risk ranking scores:*

- *Vehicle fuel, fluid leaks are down as < once per 5 years – what is the justification for this figure?*
- *Same for pump seals / flange failures at < once per 2 years up to once per 5 years.*
- *Same for small release at berth, where < once per 5 years is quoted.*

Due: 31st December 2017

Taking the last event and using the frequency of 2 instead of 1, the risk then moves to 6, medium high risk. Of course this statement is made without knowing what factors may influence a leak at the berth: number of operations, weather, difference in competence of various shipping staff, varying states of condition of loading equipment of various vessels etc.

The environmental severity indicators seem appropriate. And have taken various things into account, such as breaching a limit once or multiple times, off site effects, number of complaints.

Recommendation 2 October 16 2017: *Following the CDOIF and DETR MATTE guidance documents, ensure the duration and extent of impact to the environmental compartment are considered. It may be the case that this has been considered and that these sub COMAH events do not reach MATTE thresholds. However, it is worth making some statement so that it is obvious that off site effects and how much of and how long a receptor could be affected has been looked at, even if sub MATTE.*

Fugitive Emissions

The following conditions cover fugitive emissions management: 2.2.5.1, 2.2.5.2; and mass releases of the substances concerned (methanol and D4 / D5 cyclics) must be reported annually by condition 4.1.2.1. To do this the site currently carries out a Leak Detection And Repair program, which includes using US EPA Method 21 for identifying sources of leaks.

The operator submits the estimates of losses annually on form MR1 and the LDAR provides some of the data for methanol losses; the cyclics losses are calculated using an application of Raoults law based on the mixture of N_2 blanketing gas and cyclics vapour losses from mainly tank filling. The previous CAR1 contains some information on a change in operations that has led to more tank movements and hence an increased estimate of cyclic losses.

The main aspects of the monitoring exercise are:

- Competent contractor using an appropriate analyser
- Tank vents around circumference and valves, pumps, filters and flanges – 398 points monitored
- Leak detection set at the most stringent M21 value of >500 ppm
- LDAR screening document: NTW-ENG-PROC-0042:
    - Use of intrinsically safe instrument
    - Control room operator allows monitoring and monitors valve control etc.
    - Exceed instrument response time at monitoring point
    - Exact points and aspects of components explained, e.g. packing gland, shaft seals etc.

Action 2 October 16 2017: *The operator to confirm the following and review the above LDAR screening document to include this extra detail:*

- Specification and name / model number of instrument
- Analytical basis, e.g. PID and confirmation that methanol is a suitable analyte for the instrument with the relevant interferences
- Range in ppm
- Response time
- Response factor used
- Calibration procedure: zero and standard gas concentration in the likely range to be monitored and % drift

from calibration gas concentration
- Pump flow rate
- Procedure for ensuring no water interference
- Any points considered unsafe or too difficult to monitor
- Influences of seasonal conditions on losses
- **Calculation for cyclics loss estimation and PID readings for methanol loss estimation**
- Procedure for tracking identified repairs and / or replacement – threshold for completion date
- Actual campaign for the monitoring, that shows the data values
- How the operator responds to >500 ppm leaks

Due: 31st December 2017

The inspection of the use of Method 21 was carried out on site on one of the methanol tanks. The contractor was a two man team, who are familiar with the site. They used a Foxboro TVA 1000B PID for the methanol analysis. NRW witnessed how the contractor uses the analyser to detect a leak at the various circumference tank vent points and how moisture is dealt with. The data is recorded ad it appears the monitoring is conducted beyond the analyser response time and values are left to settle. The data is fed back to the operator.

END

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	**Report ID: CAR_NRW0032310**

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Site	Barry Silicon Installation	Permit Ref	KP3734SH
Operator/Permit holder	Navigator Terminals Windmill Limited	Date	19/05/2017

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.