

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

Site	Point Of Ayr Gas Terminal	Permit Ref	DP3934EW		
Operator/Permit holder	Eni UK Ltd				
Regime	Installations				
Date of assessment	31/12/2017	Time in	09:30	Out	14:00
Assessment type	Report/Data Review				
Parts of the permit assessed	1.1, 3.1, 3.6, 4.2, 4.3				
Lead officer's name	Voice, Elizabeth				
Accompanied by					
Recipient's name/position	Catherine Jones/ Senior Environmental Advisor	Date issued	09/03/2018		

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
B5 - Infrastructure - Plant and equipment	C3	3.1.2
	C3	3.1.2
	C3	3.1.2
C2 - General Management - Management system and operating procedures	C3	1.1.1(a)
E1 - Emissions - Air	C3	3.1.2
	C3	3.1.2
	C3	3.1.2

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	7	Total compliance score (see section 5 for scoring scheme)	28
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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

This assessment report is for the site annual review and the inspection dated 07/09/17.

Requirement

Permit condition 3.1.2 The limits given in Schedule 4 shall not be exceeded.

Findings

Q2

18/05/2017 00:56 (date of detection of leak)

Pin hole leak on Lean Solvent Line on Tail Gas Unit (TGU) requiring unit to be shut down. Lean solvent was observed dripping from the line work between the Solvent Regenerator and Solvent Reboiler. The Tail Gas Unit was taken off line, and the unit cooled down for vessel preparation and isolation to allow investigation of cause of the leak. A defined life repair using an engineered wrap was installed to return the TGU into service. The Lean Rich Exchanger fouled plates were also changed. Emissions within limits 23/05/17 at 11:18.

No site perimeter odour issues.

Breach of A1 SO₂ hourly average limit 970mg/m³ against elv 190mg/m³.

23/06/17

TGU taken offline for inspection activities as part of a planned outage. Breach of SO₂ emission limit value of 1200mg/m³ +/- 300mg/m³ against limit of 190mg/m³ for 23/06/17 – 13/07/17 and 07/08/17 – 20/08/17.

No site perimeter odour issues.

Compliance

B5 Plant and equipment CCS 3

E1 Emissions to air CCS 3

Q3

04/09/17

Breach of SO₂ 13:16-14:53 with peak hourly average of 692mg/m³ against elv of 190mg/m³. Control room operator noticed breach and informed supervisor who adjusted plant operating parameters to reduce emissions.

Root cause probably the instability of the Solvent Recovery Unit (SRU), and issues with controlling the air flow to the Reaction Furnace. Control Room Operators were briefed on monitoring of the TOX and troubleshooting problems. Engineering review of SRU and TGU process with independent experts.

Compliance

B5 Plant and equipment CCS 3

E1 Emissions to air CCS 3

Q4

03/11/17 04:10-04:45

Breach of SO₂ with an hourly average emission of 632mg/m³ against the elv of 190mg/m³. Same as issues as breach 04/09/17.

03/11/17 14:03

Breach of SO₂ with an hourly average emission of 1500mg/m³ against the elv of 190mg/m³.

Following start-up of the plant it was noticed that the operating pressure in the airbox of the reaction furnace was gradually increasing. This was due to significant contamination of the contact condenser in the TGU with solids and sulphur blockages in the second and third condensers. The contact condenser was back flushed several times to clear the blockage and minimise the operating pressure without success. It was found that there was still significant presence of solids in the fluid.

A request was made by ENI to take the TGU offline for a week to allow remediation activities to be undertaken to rectify the current operational issues. The purpose was to reduce the operating pressure in the Sulphur Recovery Unit to allow the condenser to be flushed from top to bottom. This would help resolve the issues encountered with significant contamination of the fluids and provide higher reliability of the TGU.

SO₂ emissions measured on 10/11/17 was 5600mg/m³. Gas production was stopped and NRW notified by phone. Gas production restarted at 21:49 on 14/11/17 and SO₂ concentration was within emission limit value. The production rate increased which caused further blockages in the Tail Gas Unit's Contact Condenser. The TGU was taken off line for 12 hours during which time the SO₂ reached 1400mg/m³. The TGU was restarted at 18:59 on 15/11/17.

No site perimeter odour issues.

A plan was been developed to prevent recurrence and to ensure key equipment was functional and sulphur blockages fully cleared prior to restarting production. A study was commissioned to identify further Sulphur Recovery Unit performance improvement opportunities.

11/12/17 08:30 to 18:16

Breach of SO₂ with an hourly average emission of 1000mg/m³ against the elv of 190mg/m³. The Contact Condenser Top Circulation Pumps on the TGU were unable to operate due to solids in the pump suction strainers. The pumps were flushed and the solids removed.

Compliance

B5 Plant and equipment CCS 3

E1 Emissions to air CCS3

NRW requested that air modelling be carried out to assess the impact of operating for 25 days without the tail gas unit. A final report was submitted 'Eni Point of Ayr Gas Plant: Assessment of TGU Outage (25 days) Impacts on Air Quality' dated 14/07/17'. The modelling report demonstrated that no air quality standards for the protection of human health were predicted to be exceeded, and that the change in short term SO₂ impacts were insignificant at any off-site location. The change in impacts on ecological receptors was also insignificant.

ENI operated for 47 days in 2017 without the TGU. This is unacceptable and the compliance scores for 2017 reflect the length of time operating without environmental protection.

Action

Review and update procedures to ensure trigger alarms associated with emission limit values gives sufficient scope to prevent breach of these values. Confirm by email that you have complied with this action by 30/04/18.

Provide a summary of the engineering review commissioned to improve the SRU and TGU processes. What actions were identified and what actions have been carried out / completed? Report to be submitted 30/04/18.

Review of Maintenance 07/09/2017

ENI use a Maintenance Management Tool on SAP with different levels of criticality (safety critical equipment, business critical, non-critical). SAP generates a monthly work plan. Members of the Planning Team schedule the resources required for the following week and meetings are held weekly. Issues which may impact the work plan are insufficient people or lead time for ordering equipment.

Critical spares are stored in the warehouse on site. The warehouse manager is responsible for the minimum and maximum range of stock.

A review of defects on the safety critical equipment is carried out monthly. The CEMS is classified as Category 3 (non-critical) equipment. The tail gas regeneration boiler is recorded as safety critical for maintenance but non-critical equipment.

The reboiler has been in place 18 years and has corroded badly over the last three years. It has had vessel inspections by Lloyds Register 08/11/16 and 06/07/17. The 2016 inspection was carried out with lagging on due to temperature of the reboiler (can only remove lagging if the TGU has not run for 4 days). In 2013 the vessel was fully mapped.

The Integrity Engineer decides how often inspections are carried out and liaises with Lloyds, the site manager and the operations manager.

Site vessels are on SAP, and pipelines on RBMI (risk based maintenance system). The process, history, risk and metallurgy are considered within the assessments.

Shutdowns occur every 2 years. There will be a shutdown in 2018 and 2020.

The warehouse uses MRP (material requirement planning). The automatic reordering systems has been turned off. There is a local agreement to order on demand.

Requirement

1.1.1 (a) The activities shall be managed and operated in a way in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operation, maintenance, accidents, incidents and non-conformances.

Finding

There is no list of environmentally critical equipment in the EMS.

Action

C2 Management systems CCS4

Environmentally critical equipment list to be added to the EMS. Cross reference with the level of criticality of equipment on SAP or RBMI to ensure align. Submit by 31/05/18.

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0032889**

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

Site	Point Of Ayr Gas Terminal	Permit Ref	DP3934EW
Operator/Permit holder	Eni UK Ltd	Date	31/12/2017

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.

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.

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			
C2	C3	See section 2	31/05/2018
E1	C3	See section 2	30/04/2018
E1	C3	See section 2	30/04/2018
E1	C3	See section 2	30/04/2018
B5	C3	See section 2	30/04/2018
B5	C3	See section 2	30/04/2018
B5	C3	See section 2	30/04/2018

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.