

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

Site	Pembroke Refinery	Permit Ref	YP3930EX		
Operator/Permit holder	Valero Energy Ltd				
Regime	Installations				
Date of assessment	26/10/2018	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Improvement condition reponses				
Lead officer's name	Broom, Mark				
Accompanied by					
Recipient's name/position	Neil White/ Environmental Engineering Manager	Date issued	19/11/2018		

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
C2 - General Management - Management system and operating procedures	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
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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

The refinery BAT conclusions has two conclusions that use a concept of Integrated Refinery Emissions Management (BATc 57 and 58). The first of the two relates to NOx releases and the second one is concerned with Sulphur dioxide releases. Valero had two Improvement conditions (IC36 and 37) to describe how they comply with each BATc 57 and 58 conclusions and how they will apply the principles of Integrated Refinery Emissions Management to their releases of NOx and Sulphur dioxide from the refinery as a whole. This integrated approach to managing the releases of NOx and Sulphur dioxide from the refinery as a whole is often termed the bubble approach or methodology. The UK regulators have been working with the Refinery sector to have consensus on the practicable implementation of the bubble approach for both NOx and Sulphur dioxide releases at UK refinery sites.

Valero combined their response to the two improvement conditions 36 and 37 into a single submissions because of the over lap in the bubble approach. The submission was made by email on 3 August 2018.

Assessing each condition in turn (i.e. IC36/BAT57 and IC37/58).

BAT 57. In order to achieve an overall reduction of NOx emissions to air from combustion units and fluid catalytic cracking (FCC) units, BAT is to use an integrated emission management technique as an alternative to applying BAT 24 and BAT 34 - the combustion and FCCU conclusions relating to NOx releases.

The basis of the BATc is to have three aspects that need to be included in the submission that are in addition to the monitoring requirements for the release points.

- a monitoring plan including a description of the processes monitored, a list of the emission sources and source streams (products, waste gases) monitored for each process and a description of the methodology (calculations, measurements) used and the underlying assumptions and associated level of confidence;
- continuous monitoring of the flue-gas flow rates of the units concerned, either through direct measurement or by an equivalent method;
- a data management system for collecting, processing and reporting all monitoring data needed to determine the emissions from the sources covered by the integrated emission management technique.

The job aid (section 2.2) includes the emission limit values used in the recently issued permit. These values were determined using the relevant BATcs in the EU published refinery and combustion best available Techniques conclusions.

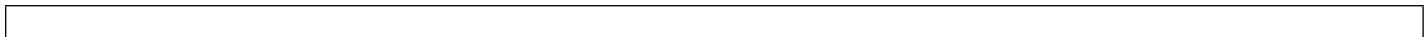
The release points are detailed in the methodology together with the calculation approach used for the bubble. The use of CEMS and PEMS is either described in the job aid or signposted as relevant documents at the end of the document. Data management is carried out within the site plant data handling system and there are clear criteria used to decide when plant is deemed to be in its normal operational mode for inclusion into the NOx bubble.

On that basis this approach meets the principles of the BATc 57 and its use is consistent with the UK approach to this issue.

BAT 58. In order to achieve an overall reduction of SO2 emissions to air from combustion units, fluid catalytic cracking (FCC) units and waste gas sulphur recovery units, BAT is to use an integrated emission management technique as an alternative to applying BAT 26, BAT 36 and BAT 54. BAT 26 36 and 54 are the relevant conclusions for sulphur dioxide releases from the combustion plant, FCCU and sulphur recovery units respectively.

As with the NOx bubble (BATc57) Valero have used the same approach (monitoring plan, flow measurement and data management) but including the sulphur recovery systems into this bubble approach. They have clearly outlined how they measure sulphur recovery efficiency which is additional to the NOx bubble. Again the three BATc sub criteria are essentially the same as the NOx bubble approach.

On that basis for BATc58, Valero have met the principles of the conclusion and its use is consistent with the UK approach to this issue.



EPR Compliance Assessment Report

**Report ID:
CAR_NRW0034112**

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Site	Pembroke Refinery	Permit Ref	YP3930EX
Operator/Permit holder	Valero Energy Ltd	Date	26/10/2018

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.