

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

Site	Valero Refinery Pembrokeshire		Permit Ref	QP3033LW		
Operator/ Permit holder	Valero Energy Limited					
Date	15 January 2015		Time in	09.30	Out	15.30
What parts of the permit were assessed	See below					
Assessment	EPR - inspection	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	Neil White, Environmental Engineer, Valero Energy Limited					
Officers names	DMP Broom		Date issued	12/5/2015		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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

Condition(s) breached

a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	A	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	A	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	A	
e) Emissions	1. Air	A	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	A	
	3. Dust/fibres/particulates	A	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	A	
	2. Records of activity, site diary, journal & events	A	
	3. Maintenance records	N	
	4. Reporting & notification	A	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk), A = Assessed or assessed in part (no evidence of non-compliance), N = Not assessed, NA = Not Applicable

Number of breaches recorded	-	Total compliance score (see section 5 for scoring scheme)	-
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If the Total No Breaches is greater than zero, then please see Section 3 for details of 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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

Site description

Valero produce a variety of petroleum products from crude oil. The products range from liquid gases such as propane and butane through gasolines to gas oils and kerosenes through to heavier products such as fuel oils. To produce these products they use a number of unit processes such as distillation, fractionation, isomerisation, cracking and alkylation to produce products that meet the required specification. The site also removes sulphur from the raw materials by conversion to hydrogen sulphide and its subsequent conversion to solid sulphur. The aqueous effluent processed within the refinery is treated with oil separation and biological treatment to reduce the impact of the refinery on the receiving Haven waterway. Some gases and oils are burnt on site to produce power to operate the refinery.

Purpose of visit/assessment

To attend the Community meeting and to review progress with implementation of the Industrial Emissions Directive (IED).

Person(s) present (Office based)

VEL Neil White
Clare James

NRW Mark Broom

Valero Community Advisory Panel

The Valero Community Advisory Panel met and the feedback was very positive on the recent turnaround with the staggered start/finish time and the use of buses to smooth out the follow of people into and out of the refinery. The turnaround was reported to have been completed ahead of plan in a safe and profitable manner.

BAT conclusions

The NRW approach to the BAT conclusion responses is for a qualitative response as used by Tata Steel in their Regulation 60 response – see the link below to the Tata Steel response <http://naturalresources.wales/media/2469/tata-reg-60-bat-response.pdf?lang=en>. It is not clear how the refinery BAT conclusions interface with the IED Annex V requirements. The two documents are not aligned in terms of monitoring requirements e.g. Annex V has three elv averaging times daily mean, monthly mean and annual mean (95th percentile of hourly means) against the BAT conclusions requirements of daily mean and annual mean. If Valero choose to go for the sulphur and /or nitrogen oxide bubble limits (BATcs 57 and 58) they will still have to ensure that they do not breach the Annex V requirements and Annex V elv which are the backstop for the large combustion plant performance.

The UK environmental regulators have been looking at the issue of Regulation 60 responses and have been developing an example to help with the refinery regulation 60 responses. Valero think that they have the following areas where they may need to consider derogations.

FCCU - Valero have carried out some work on the FCCU during the recent shutdown. They have noticed a step change in performance of the particulates. The results show that they are close to the BAT AEL so they may require a derogation as the unit gets towards a turnaround. It may be that there are decisions to be made: Valero know that the deSOx catalyst suffers from attrition. If Valero stop or reduce the use of deSOx catalyst and go for a bubble limit (BATc 57) then they may have more certainly on compliance with the FCCU dust BATc (25). Alternatively they could keep using desox catalyst and choose to live with the risk of breaching the FCCU particulate limit and comply with the FCCU particulate conclusion (BATc 25) and the FCCU sulphur limit (BATc(26)). The status of the site sulphur bubble limit going beyond the current permit into the refinery review is not clear.

Low NOx burners - Based on their heaters and burners on the combustion plant they may need one or more derogations to meet the relevant BAT conclusions (BATc34) – gas firing 150 mg/m³ and multifuelled firing 300 mg/m³ as monthly means.

Vapour recovery - BAT conclusions 52 (BATc52) requires vapours from loading and unloading operations of petroleum

derivatives with a Reid vapour pressure > 4kPa to be recovered where the annual throughput is >5000 m³/year and where the vessel loading/unloading capacity is > 1000000 m³/year. As the Valero jetty has a number of berths and space is restricted they may need derogations from fully implementing this requirement.

Waste water treatment - Valero have looked at the BAT conclusions and have concluded that they may need to denitrify their effluent to achieve the BATAEL 1 – 25 mg/l as a daily mean and <15 mg/l where nitrification/denitrification is used. Based on these levels a derogation may be needed.

Valero use a system designed 'Envirosoft' to automatically exclude start up and shut down operations based on pre-defined criteria. This system should help to exclude start up and shut down conditions for BATAEL compliance purposes. However soot blowing on the FCCU operations may need to be included in the monthly mean compliance levels but this has to be confirmed.

During the recent turnaround a number of projects will help close some of the Bat gaps. For example the FCCU waste boiler can be installed now that the connections are in place. This will help to improve the waste heat recovered on site - BATc2. Valero also plan to ensure that all acid offgases from sour water stripping will be routed to an SRU before the 4th anniversary of the refinery BAT conclusions being published (BATc9).

Annex V compliance

Valero do not see that a daily mean is practical for them. The Annex V regulation 60 will in short ask how Valero will comply with the Annex V requirements – dynamic ELVs for multifueled firing plant and the three averaging times (daily, monthly and 95th percentile hourly) limits. It will be for Valero to show how they can comply with these requirements through their Annex V regulation 60 response.

Other issues

Annual reporting Air form (discontinuous monitoring) etc.

As there are AST reports for the NERP combustion plant – which will be reviewed at the NERP review on 10 February 2015 – only those plant that have discontinuous monitoring for SO₂/NO_x and Particulates need to be reported.

The NERP CEMS equipment requires a variety of different tests Annual surveillance tests (ASTs). QAL2 and QAL3 tests at set frequencies. These assessments and checks should be reported to the regulator according to condition 3.7.6. These will be reviewed at the NERP verification meeting. However when the new post-NERP permit has been issued, these will need to be submitted from that point onwards as there will be no equivalent to a NERP verification assessment.

Water turns – pH

The permitted limits for W1 is a range 6 – 9 i.e. a minimum and a maximum. The minimum in the reporting period should also be reported in addition to the mean and the maximum in a reporting period to show compliance with the permitted limits.

Annual reporting (condition 4.2.1).

The standard deadline for this reporting is 31 January each year. However Valero have previously agreed that these reports would be submitted after the annual monitoring returns and once the Pollution Inventory has been reported. Previous inspectors have accepted the end of March each year to allow time to collate and review the monitoring and Pollution inventory information. This is allowable as the standard 4.2.1 condition has or any other date as agreed in writing with the Agency.

Waste returns (condition 4.2.5)

Quarterly waste returns are needed to be submitted to the regulator if waste is received onto the installation. Valero receive ballast water for treatment in the oily water and then the effluent systems. This waste stream needs to be reported according to this condition. Waste returns need to be sent to Natural Resources Wales for data collation and assessment. The ballast water is deemed to be hazardous waste so it also needs to be reported but to the Environment Agency because they are hosting this service for Natural Resources Wales. This information can be emailed through according to the links provided. If the industry Regulation email address is also used then one email could satisfy all three requirements.

RSR charges

Valero have had a number of similar invoices about their RSR charges and they could not understand the reason for these charges after looking at the charging scheme. Following a series of emails and phone calls with the NRW accounts department this issue has now been resolved.

Conclusions

Valero have reviewed the Refinery BAT conclusions and they have started to look at the implications to the refinery and their investment plans. The implications of IED on their combustion plant still are not clear due to difficulties over interpretation over multi-fuelled firing. However it will be for Valero to show compliance with the daily, monthly and annual emission limit values once a decision has been made on the classification of the fuels burnt within the site. The compliance date is from 1 January 2016 based on present information.

[END OF SECTION 2]

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

Site	Valero Refinery Pembrokeshire	Permit	QP3033LW
Operator/ Permit	Valero Energy Limited	Date	12/5/2015

Section 3- Enforcement Response **Only one of the boxes below should be ticked**

<p>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.</p>	
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.	n/a
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.	n/a
We will now consider what enforcement action is appropriate and notify you, referencing this form.	n/a

Section 4- Action(s)

Where a non - compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

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 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 which 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 Natural Resources Wales (NRW) to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). 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 (e.g. 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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

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

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 twenty 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 the officer's line managers. 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) 601 0987**.