

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

| | | | | | | |
|--|---|---------------|--------------|-----------------------|----------|-----------------|
| Site | Valero Refinery Pembrokeshire | | Permit Ref | QP3033LW (as amended) | | |
| Operator/ Permit holder | Valero Energy Limited | | | | | |
| Date | 26 November 2015 | | Time in | 10.30 | Out | 13:30 |
| 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 | 23/12/15 | | |

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) | - |
|------------------------------------|---|---|---|

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 review any queries on the Regulation 60 response for the combustion plant

Person(s) present (Office based)

VEL Neil White
Clare James
Tom Day (IED)

NRW Mark Broom

The NRW position on the draft limits for the large combustion plant were discussed –

| Plant number | Plant id | Fuel | SO2 mm | NOx mm | Dust mm |
|--------------|--------------|------------------------|--------|---------|---------|
| LCP 48 | A1/A2 | 100% RFG | 35 | 300 | 5 |
| LCP 48 | A1/A2 | >0 % and < or =50% RFO | 1000 | 300-450 | 5-50 |
| LCP 48 | A1/A2 | >50% and <100% RFO | 1000 | 450 | 50 |
| LCP 48 | A1/A2 | 100% RFO | 250 | 450 | 50 |
| LCP 49 | A3/A4 | 100% RFG | 35 | 300 | 5 |
| LCP 49 | A3/A4 | >0 % and < or =50% RFO | 1000 | 300-450 | 5-50 |
| LCP 49 | A3/A4 | >50% and <100% RFO | 1000 | 450 | 50 |
| LCP 49 | A3/A4 | 100% RFO | 250 | 450 | 50 |
| LCP 50 | A6 | 100% RFG | 35 | 300 | 5 |
| LCP 51 | A7/A8/A9/A10 | 100% RFG | 35 | 300 | 5 |
| LCP 51 | A7/A8/A9/A10 | Any VDU off gas | 1000 | 300 | 5 |
| LCP 51 | A7/A8/A9/A10 | >0 % and < or =50% RFO | 1000 | 300-450 | 5-50 |
| LCP 51 | A7/A8/A9/A10 | >50% and <100% RFO | 1000 | 450 | 50 |
| LCP 51 | A7/A8/A9/A10 | 100% RFO | 250 | 450 | 50 |
| LCP 52 | A12 | 100% RFG | 35 | 300 | 5 |

mm = monthly mean

RFG = refinery fuel gas,

RFO = refinery fuel oil

VDU vacuum distillation unit

In the case of >0 % and < or =50% RFO, the elvs shall be calculated according to Article 40(2)(b)

For those stacks that have discontinuous monitoring, the draft NRW position is that the limits would be 110% of the monthly mean levels above.

The start up and shut down criteria will need to be specified in the new variation. NRW has applied the liquid fuel ELV (250 mg/m³) from Annex V to the use of 100% RFO in the draft permitted limits. The draft permit is expected to be issued to Valero for comment by the end of the first week in December 2015.

Note since the ELV table (above) was discussed, NRW has reviewed the sulphur limits for 100% RFO firing. It has concluded that Article 40(3) wording applies in this case and the limit should be 1000 mg/Nm³. The latest draft permit has been changed to reflect this new position.

Other issues

The Valero refinery has 8 berths on their two linked jetties. Out of these berths 1, 3, 4 and 5 load <1M m³/year whereas berths 2, 7 and 8 load more than the BAT52 threshold of 1 M m³/year into sea going vessels. It is not clear if this BAT threshold applies to the refinery, the jetty or the berth loading annual throughput or annual design capacities.

NRW is looking to apply the BATAEL for this operation as specified in the conclusions document. The monitoring timescales was discussed. The monitoring for VOC recovery in BAT 52 refers out to the directive 94/63/EC on petrol vapour recovery – see <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31994L0063&from=EN> Annex II, paragraph 2 which outlines the monitoring times, precision and measurement error for monitoring of VOCs from loading operations but not the BS EN monitoring standard.

If vapour destruction is used, rather than recovery, because of technical or space reasons, what limits would be used by the regulator. Vapour thermal oxidisers are used elsewhere and limits are applied but the BAT conclusions for the refinery sector does not detail the BATAELs in this case. Lastly if VOCs are unloaded (e.g. petrol and certain crude oils) within a refinery at more than 1M m³/year then that operation may also need to VOC recovery in some form.

Based on the wording on BAT 56 for flaring, flare gas recovery does not have to be installed as its use is optional in this conclusion. As such Valero are not planning to install this system but have focussed their efforts to minimise 'routine' flaring of refinery gases.


At the meeting with NRW on 4 November 2015, the use of antimony in the FCCU Valero use antimony as a passivator was discussed with JW and GLE. Its use in the FCCU process means that the NOx BATAEL from BATC 24 (note 1) is therefore 700 mg/Nm³ as a monthly mean.

These IED issues can be discussed in more detail in January/February when NRW and Valero can review each of the BATcs that apply to the refinery.

Conclusions and further actions required

A short but useful review of some Annex V and IED questions. The queries over BAT 52 – applicability of the 1M m³/year threshold, monitoring, limits for vapour destruction and importation of volatile materials will be clarified by NRW after discussions at the UK refineries sector group.

[END OF SECTION 2]

| | | |
|--|---|-----------------|
|  | EPR Compliance Assessment Report | Report ID: 6053 |
|--|---|-----------------|

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

| | | | |
|------------------|-------------------------------|--------|-----------------------|
| Site | Valero Refinery Pembrokeshire | Permit | QP3033LW (as amended) |
| Operator/ Permit | Valero Energy Limited | Date | 23/12/2015 |

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

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. | 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**.