

## TITLE V PERMIT COMMENT ADDENDUM

**Engineer:** René Toledo  
**Facility Name:** Equilon Enterprises LLC dba Shell Oil Products US  
**Permit Number:** F-00386-3  
**Date:** July 23, 2010

### A. EPA Comments Received December 16, 2009:

On November 2, 2009, EPA Region IX (EPA) was mailed (via US mail) the Notice of Proposed Decision, and associated documents, for this Title V Permit renewal - pursuant to District Rule 3.8, Section 409. On December 18, 2009, the District received three (3) comments from EPA regarding the proposed Title V Permit renewal (see attached EPA letter dated December 16, 2009), which are summarized below:

Comment 1: The proposed permit lacks specific Compliance Assurance Monitoring (CAM) requirements for the facility's Loading Rack, and associated control equipment, and the CAM plan submitted with Equilon's permit renewal application does not include all required CAM elements. Also, additional compliance certification language is needed.

Response 1: The District concurs with EPA's comment regarding adding Loading Rack CAM conditions to the Title V Permit. As such, a new CAM section will be added to the Final Title V Permit, II.F, Compliance Assurance Monitoring Requirements (with all subsequent sections re-numbered). In addition, proposed permit conditions II.D4.1 and II.E4.1 have been removed from the Final Title V Permit (which will allow the removal of sections II.D4 and II.E4 as a whole).

On January 19, 2010, the Permit Holder submitted a revised Loading Rack CAM plan that appears to be in compliance with the CAM design criteria of 40 CFR §64.3 (see attached Equilon letter and revised CAM plan dated January 15, 2010). On June 25, 2010 (see attached email), EPA confirmed that although they believed that the installation of a pressure measuring device which allows for the continuous monitoring and recording of the carbon system's differential pressure was feasible, they would defer the final decision to the District. The District therefore considers the manual monitoring and recording of each carbon adsorption bed's pressure gage at least once every twenty four (24) hours to be adequate in determining on-going compliance with the system's performance requirements. EPA's email also requested the inclusion of a condition specifically requiring that each carbon adsorption canister be regenerated.

On July 8, 2010, the District provided the Permit Holder with a copy of the revised CAM requirements specific to the Loading Rack of P-44-74(a2) (see attached email). On July 15, 2010, the Permit Holder provided the District

with additional comments specifically pertaining to conditions II.F2 and II.F3 (see attached email). The District has taken the applicant's follow-up comments under consideration and has revised the two affected conditions accordingly. Due to the specificity of the CAM regulation, the District has retained the "24-hour" monitoring frequency of condition II.F.3. The following conditions reflect the final language to be used in the renewed Title V.

- F.1 The Permit Holder shall perform daily inspections and maintenance of the Loading Rack equipment and control equipment per the District-approved CAM plan. Records and results of each inspection and maintenance event shall be maintained for a period of no less than five (5) years from the date of inspection/maintenance. An excursion occurs if an inspection is not performed or documented, or if corrective action is not initiated within forty-eight (48) hours to correct any problem(s) identified during the inspection. An excursion shall trigger an investigation, corrective action, and a reporting requirement. If any daily inspection reveals a potential problem(s) with the Loading Rack equipment and/or control equipment, the Permit Holder shall immediately perform the monitoring required by condition F.3 of this permit. [40 CFR, Part 64, §64.7]*
- F.2 The two (2) carbon adsorption beds shall be connected in parallel, and shall be operated simultaneously so that one carbon adsorption bed is undergoing regeneration under vacuum, while the other carbon bed is on-line and controlling the VOC emissions from the process. Unless otherwise approved in writing by the District, the minimum regeneration duration of each carbon adsorption bed shall be fifteen (15) minutes. [40 CFR, Part 64, §64.7]*
- F.3 When the vapor recovery system (VRS) is operating, each carbon adsorption bed operating in its regeneration cycle shall reach at least 25 inches-Hg vacuum gauge pressure. The Permit Holder shall monitor at least once every 24 hours the vacuum gauge pressure for each carbon adsorption bed during a regeneration cycle. Where the VRS is operating and the vacuum gauge pressure reading in a regeneration cycle is observed at or above 25 inches-Hg, the Permit Holder shall record the time when the reading was observed, the name of the carbon bed regenerating, and that the regeneration cycle attained 25 inches-Hg. Where the VRS is operating and the maximum vacuum gauge pressure reading in a regeneration cycle is observed below 25 inches-Hg, the Permit Holder shall record the time of the observation, the name of the carbon bed regenerating, and the maximum vacuum pressure observed during the regeneration cycle. If during a monitoring event the VRS is not operating, the Permit Holder shall record the system as "idle" and the time of the observation. Records and results of each observation shall be maintained for a period of no less than five (5) years from the date of inspection. An excursion occurs if a pressure reading is not performed*

*or documented, or if a regenerating carbon adsorption bed does not reach at least 25 inches-Hg vacuum gauge pressure during a regeneration cycle. An excursion shall trigger an investigation, corrective action, and a reporting requirement. [40 CFR, Part 64, §64.7]*

- F.4 The Permit Holder shall perform a source test to measure the vapor recovery system emission rate at least once every twelve (12) months in accordance with the test method specified in District Rule 2.21, Section 607. Records and results of each source test event shall be maintained for a period of no less than five (5) years from the date of the source test event. An excursion occurs if a source test is not performed. An exceedance occurs if source test results indicate emissions exceeded a permitted VOC limit or rate. An excursion and/or exceedance shall trigger an investigation, corrective action, and a reporting requirement. [40 CFR, Part 64, §64.7]*
- F.5 The Permit Holder shall perform, at least once every three (3) months, a Loading Rack equipment and control equipment leak inspection per the District-approved CAM plan. Records and results of each leak inspection event shall be maintained for a period of no less than five (5) years from the date of inspection. An excursion occurs if a leak inspection is not performed or if a gas or liquid leak, as defined in District Rule 2.23, is found during normal loading operations that is not repaired within the time limits outlined in District Rule 2.23. An excursion shall trigger an investigation, corrective action, and a reporting requirement. [40 CFR, Part 64, §64.7]*
- F.6 The Permit Holder shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, used for compliance with the District-approved CAM plan. [40 CFR, Part 64, §64.7(b)]*
- F.7 Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the Permit Holder shall collect data at all required intervals at all times when the Loading Rack equipment and associated control equipment are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of demonstrating compliance with the District-approved CAM plan. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR, Part 64, §64.7(c)]*
- F.8 Upon detecting an excursion or exceedance per the District-approved CAM plan, the Permit Holder shall restore operation of the Loading Rack equipment and associated control equipment to its normal or*

*usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR, Part 64, §64.7(d)]*

- F.9 If the Permit Holder identifies a failure to achieve compliance with an emission limitation or standard for which the District-approved CAM plan did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permit Holder shall promptly notify the District and, if necessary, submit a proposed modification to the Title V Operating Permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR, Part 64, §64.7(e)]*
- F.10 Upon an accumulation of all excursions exceeding five (5) percent duration of the total Loading Rack operating time, the Permit Holder shall submit a quality improvement plan (QIP) consistent with 40 CFR §64.8(b). [40 CFR, Part 64, §64.8]*
- F.11 Any excursion or exceedance per the District-approved CAM plan shall be promptly reported to the District. For the purpose of this condition, prompt means as soon as reasonably possible, but no later than ten (10) days after detection. [40 CFR, Part 64, §64.9]*
- F.12 A CAM plan monitoring report shall be submitted at least every six (6) months and shall include the following:*
- a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the correction actions taken; and*
  - b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents.*
- The CAM plan monitoring report may be incorporated with the monitoring report required by District Rule 3.8, Section 302.7b. [40 CFR, Part 64, §64.9]*

In addition, the District concurs with EPA regarding the additional language for annual compliance certifications. The District will revise proposed permit condition IV.0.3 to read as follows on the final permit:

### **Streamlining Demonstration**

As shown below, the standard statement of compliance status language of Rule 3.8 (Federal Operating Permits), will be streamlined under the provisions of Rule 3.4 to include the applicable CAM excursion and exceedance reporting requirements of 40 CFR Part 70.6:

**Streamlined Requirement:** Section 302.14(c) of Rule 3.8 requires “the compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period.”

Revised condition IV.0.3 now reads:

*O.3 The compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period. The compliance certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred. [District Rule 3.4, District Rule 3.8, §302.14(c), and 40 CFR Part 70.6]*

The Rule 3.8 annual reporting requirements have been streamlined by the District Rule 3.4 requirement.

**Comment 2:** The statement of basis contains at least three inaccurate statements about versions of rules in the YSAQMD portion of the California State Implementation Plan (SIP).

**Response 2:** The District concurs that the SIP version of Rule 2.23, Fugitive Hydrocarbon Emissions, was adopted on March 23, 1994. After reviewing the SIP version of Rule 2.23, the District has determined that correct permit conditions from the rule were placed on the proposed permit. No changes regarding Rule 2.23 will be made on final permit. Future District Statement of Basis documents will be checked to ensure correct SIP rule versions are evaluated.

The District does not concur that the SIP does not contain any version of Rule 3.1, General Permit Requirements. Based on the text contained on Page 67068 of the Federal Register, Vol. 69, No. 220, the SIP approved version of Rule 3.1 (adopted February 23, 1994) was “deleted without replacement Rule 3.1, paragraphs 403 and 406.” As such, all other sections of Rule 3.1

are still contained in the SIP. Since no part of the Title V permit references either Section 403 (dealing with Denial of Applications) or Section 406 (dealing with Appeals), no changes regarding Rule 3.1 will be made on the final permit.

The District concurs that the SIP version of Rule 3.4, New Source Review, was adopted on December 11, 1996. After reviewing the SIP version of Rule 3.4, the District has determined that correct permit conditions from the rule were placed on the proposed permit. No changes regarding Rule 3.4 will be made on final permit. Future District Statement of Basis documents will be checked to ensure correct SIP rule versions are evaluated.

Comment 3: The annual compliance certification requirement must include additional language.

Response 3: See the District's response to EPA's Comment 4 below (received May 24, 2010).

**B. EPA Comments Received May 24, 2010:**

Per the comments made by EPA on another recent Title V permit renewal (see attached email received May 24, 2010), the District will update the proposed Title V permit. For reference, these program related comments and the District's responses are summarized below.

Comment 4: The annual compliance certification and semi-annual monitoring report submittal deadlines contained in the proposed Title V permit are not practically enforceable and has recommended that the affected conditions be revised to include explicit applicability periods and due dates. The comment also contains specific examples of acceptable condition language and reporting scenarios.

Response 4: The District agrees with the comment and will revise the affected Title V conditions to contain explicit applicability periods and report due dates. In order to document the inclusion of new language, the District will use this comment addendum to perform a streamline demonstration for each condition.

**Streamlining Demonstration**

As shown below, the standard annual compliance certification reporting language of Rule 3.8 (Federal Operating Permits), will be streamlined under the provisions of Rule 3.4 to include specific reporting and submittal dates:

**Streamlined Requirement:** Section 302.14(a) of Rule 3.8 requires "the responsible official shall submit a compliance certification to the U.S. EPA and the APCO every twelve (12) months unless required more frequently by an applicable requirement. All compliance reports and other documents required

to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.”

Revised condition IV.0.1 now reads:

*O.1 The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every twelve (12) months unless required more frequently by an applicable requirement. The twelve (12) month period shall be January 1 through December 31, and shall be submitted by January 30 following the reporting period, unless otherwise approved in writing by the District. All compliance reports and other documents required to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [District Rule 3.4 and District Rule 3.8, §302.14(a)]*

The Rule 3.8 annual reporting requirements have been streamlined by the District Rule 3.4 requirement.

#### **Streamlining Demonstration**

As shown below, the standard semi-annual monitoring report language of Rule 3.8, will be streamlined under the provisions of Rule 3.4 to include specific reporting and submittal dates:

**Streamlined Requirement:** Section 302.7(b) of Rule 3.8 requires “a monitoring report shall be submitted at least every six (6) months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7(a) of Rule 3.8.”

Revised condition IV.V.2 now reads:

*V.2 A semi-annual monitoring report shall be submitted at least every six (6) consecutive months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7(a) of Rule 3.8. The six (6) month periods shall be January 1 through June 30 and July 1 through December 31, unless otherwise approved in writing by the District. The reports shall be submitted by July 30 and January 30 following each reporting period respectfully, unless otherwise approved in writing by the District. [District Rule 3.4 and District 3.8, §302.7(b)]*

The Rule 3.8 semi-annual reporting requirements have been streamlined by the District Rule 3.4 requirement.

Comment 5: A portion of Section 302.14(a) of District Rule 3.8, has been omitted from the proposed Title V permit, and requests that the rule language be included in the permit.

Response 5: The District agrees with the comment and has revised condition IV.O.1 to read:

*O.1 The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every twelve (12) months unless required more frequently by an applicable requirement. The twelve (12) month period shall be January 1 through December 31, and shall be submitted by January 30 following the reporting period, unless otherwise approved in writing by the District. All compliance reports and other documents required to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [District Rule 3.4 and District Rule 3.8, §302.14(a)]*

Comment 6: EPA requests that citations for all streamlined permit requirements contained in the Title V permit be expanded to include citations of the subsumed requirements along with the most stringent rule requirements. EPA states that this citation methodology will comply with the guidance previously established in EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" (March 5, 1996), and will help to assure the public and EPA that all emission limits have been considered and included in the permit.

Response 6: The District agrees with the comment and has amended the rule citation of each affected Title V permit condition to include a reference to each subsumed rule requirement. Except for the two previously discussed reporting conditions (see EPA Comment 4 above), the Statement of Basis for this proposed Title V permit contains all of the necessary streamlining procedures (which remain unaffected by the rule citation amendment). The District has revised the citation of condition II.C3.5 (Work Practice and Operational Requirements for P-44-74(a2) [Loading Rack]) read:

*[District Rule 3.1, §402, District Rule 2.21, §308.1, and 40 CFR 60.502(b)/C-08-179]*

### **C. ARB COMMENTS:**

On November 2, 2009, ARB was mailed (via US mail) the Notice of Proposed Decision, and associated documents, for this Title V Permit renewal - pursuant to District Rule 3.8, Section 409. As of the date of this comment addendum, no comments have been received from ARB.

**D. PUBLIC COMMENTS:**

On November 4, 2009, the public notice for the proposed decision to issue this Title V Permit renewal was published in the West Sacramento Press newspaper. The 30-day public comment period ended on December 4, 2009. No comments were received from the public, other than the Permit Holder, during this period. Seven (7) comments from the Permit Holder were received on December 4, 2009 (see attached Equilon letter dated December 3, 2009):

Comment 1: Update responsible official information.

Response 1: The District will update the Responsible Official section on the final permit to list the "Responsible Official" as Clorinda Nothstein, Western Region Manager, (310)816-2009.

Comment 2: Add site contact person cell phone information.

Response 2: The District will add Ms. Geijer's cell phone number of (206) 618-9061 to the final permit

Comment 3: Remove proposed permit condition C1.36 from the final permit since it only applies to the storage tanks and not the loading racks.

Response 3: The District concurs that District Rule 2.21, Section 501 does not apply to bulk loading racks. Therefore, proposed permit condition C1.36 has been removed from the final permit.

Comment 4: Revise proposed permit condition D1.4 for clarity.

Response 4: The District concurs with the comment and will revise condition D1.4, as suggested, to read as follows on the final permit:

*D1.4 For internal floating roof tanks, the Permit Holder shall visually inspect the secondary seal, floating roof, and deck fittings and use an explosimeter that is calibrated in accordance with the manufacturer's specifications to measure the LEL of the storage tank. For each storage tank, inspections and LEL measurements shall be completed at least once every three (3) months, and LEL measurements shall be taken at a distance of no less than four (4) feet from the storage tank viewport or access hatch. [District Rule 2.21, §502.2(a)]*

Comment 5: Missing source test notification and protocol submission requirements.

Response 5: No revision is necessary since the requirements for the Permit Holder to notify the District of a compliance source test event and for the submission of a source test protocol is listed in condition D3.4 of the proposed permit.

Comment 6: Need for revised CAM plan (operation and maintenance).

Response 6: See District Response to EPA Comment 1.

Comment 7: Need for revised CAM plan (record-keeping and reporting).

Response 7: See District Response to EPA Comment 1.

**E. RECOMMENDATION:**

Make the changes as described above and issue Final Title V Permit F-00386-3.

Engineer: Rene Toledo Date: 07/23/2010

Reviewed by: Susan K. McLay Date: 7/23/10

## Rene Toledo

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**From:** Rene Toledo  
**Sent:** Friday, July 23, 2010 11:55 AM  
**To:** 'theresa.geijer@shell.com'  
**Cc:** MGruber@algcorp.com; Susan McLaughlin  
**Subject:** RE: Revised Response to Comments for Title V renewal (West Sac.) (resent)

Theresa and Mark,

We have updated condition II.F.2 to replace the term "frequency" with "duration".

We have taken your comments on condition II.F.3 into consideration and discussed the use of "daily" vs. "24-hours" with EPA. According to EPA, CAM requires at least one monitoring event every 24 hours and the example contained in the regulation does not apply to your system since the second part of the example's "daily" requirement is "a weekly or monthly check of emissions with a portable analyzer." As such, we have revised condition II.F.3 once again to incorporate several of your comments and retained the "24-hour" monitoring frequency. The revised condition now reads:

*When the vapor recovery system (VRS) is operating, each carbon adsorption bed operating in its regeneration cycle shall reach at least 25 inches-Hg vacuum gauge pressure. The Permit Holder shall monitor at least once every 24 hours the vacuum gauge pressure for each carbon adsorption bed during a regeneration cycle. Where the VRS is operating and the vacuum gauge pressure reading in a regeneration cycle is observed at or above 25 inches-Hg, the Permit Holder shall record the time when the reading was observed, the name of the carbon bed regenerating, and that the regeneration cycle attained 25 inches-Hg. Where the VRS is operating and the maximum vacuum gauge pressure reading in a regeneration cycle is observed below 25 inches-Hg, the Permit Holder shall record the time of the observation, the name of the carbon bed regenerating, and the maximum vacuum pressure observed during the regeneration cycle. If during a monitoring event the VRS is not operating, the Permit Holder shall record the system as "idle" and the time of the observation. Records and results of each observation shall be maintained for a period of no less than five (5) years from the date of inspection. An excursion occurs if a pressure reading is not performed or documented, or if a regenerating carbon adsorption bed does not reach at least 25 inches-Hg vacuum gauge pressure during a regeneration cycle. An excursion shall trigger an investigation, corrective action, and a reporting requirement.*

Please review the condition and revise your CAM plan to reflect the new language.

Lastly, please be assured that this monitoring requirement will be revised/replaced if a CEM system is installed.

Please call me at 530-757-3679 with any questions you may have.

Sincerely,

René Toledo  
Yolo-Solano AQMD  
530-757-3679  
RToledo@ysaqmd.org

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**From:** theresa.geijer@shell.com [mailto:theresa.geijer@shell.com]  
**Sent:** Thursday, July 15, 2010 3:51 PM  
**To:** Rene Toledo

**Cc:** MGruber@algcorp.com

**Subject:** RE: Revised Response to Comments for Title V renewal (West Sac.) (resent)

Rene – Thank you. As discussed yesterday, we have reviewed the requirements in your email dated 7/8/2010 and have made revisions to the CAM plan (attached). As discussed, we respectfully request that you consider the following comments with regard to the new conditions:

Condition F.2: The phrase “the minimum regeneration frequency of each carbon bed shall be fifteen minutes” seems to be worded incorrectly. We believe the intent of this condition is to set a minimum duration for the regeneration cycle, not frequency. Please change the word “frequency” to “duration.”

Condition F.3: There are several issues with this condition that need to be addressed. They are listed below:

1. Shell believes this condition as currently worded is more restrictive than what is required by the CAM rule. § 64.3(b)(4)(iii) requires that “monitoring shall include some data collection at least once per 24-hour period (e.g., a daily inspection of a carbon adsorber operation in conjunction with a weekly or monthly check of emissions with a portable analyzer).” Based on § 64.3(b)(4)(iii), Shell believes that monitoring the vacuum level during regeneration should be performed every day, but not with a maximum of 24 hours between readings as is required by the current proposed condition. In fact, the example given in the rule is a daily inspection of a carbon adsorber operation.
2. Additionally, a requirement to perform regeneration cycle monitoring at least once every 24 hours would be unduly burdensome given the intermittent nature of the vapor recovery unit. The vapors from the load rack are sent first to a bladder tank, which only vents to the carbon adsorption system when it reaches a certain height, and then stops venting when nearly empty. The period between venting events could be several hours or more, which could make it impossible to monitor the vacuum on the carbon beds within 24 hours of the previous day’s observations.
3. The condition as currently written requires monitoring of the regeneration cycle every day. If the load rack does not operate on a particular day, the vapor recovery unit will not operate and monitoring of the vacuum cycle would be unnecessary and impossible. The condition should be modified to apply only on days that the VRU operates.
4. The vacuum level of 25 inches Hg is the gauge pressure, not the absolute pressure, so the word absolute should be removed from the condition, as should the reference to “psia” since the pressure is recorded in inches Hg, not pounds per square inch.
5. To avoid confusion and ambiguity, Shell believes that the condition should be reworded to remove references to negative pressure levels, and instead refer to the vacuum level.
6. The manufacturer of the carbon adsorption unit provided Shell with a recommendation on the vacuum level needed to be achieved in order to ensure that the carbon beds are being regenerated properly. According to the manufacturer, if the regenerating carbon bed reaches at least 25 inches Hg during the vacuum cycle, the bed will be properly regenerated and will have the capacity to meet the VOC emissions limit under worst case loading conditions. Therefore, it is adequate to observe that the pressure reaches at least 25 inches Hg during the

vacuum cycle, and recording the lowest pressure level during the entire regeneration cycle is not necessary.

Shell proposes to reword Condition F.3 as follows, and has modified the CAM plan accordingly:

*The carbon adsorption bed operating in its regeneration cycle shall reach at least 25 inches-Hg vacuum gauge pressure. The Permit Holder shall monitor at least once every day in which the VRU operates, the vacuum gauge pressure for each carbon adsorption bed during a regeneration cycle. The Permit Holder shall record the highest vacuum gauge pressure reading observed for each carbon adsorption bed. Where the vacuum gauge pressure reading in a cycle is observed at or above 25 inches-Hg, it is sufficient to record that the regeneration cycle attained 25 inches-Hg and the time when this reading was observed. Records and results of each pressure reading shall be maintained for a period of no less than five (5) years from the date of inspection. An excursion occurs if a pressure reading is not performed or documented, or if the regenerating carbon adsorption bed does not reach at least 25 inches-Hg vacuum gauge pressure during a regeneration cycle. An excursion shall trigger an investigation, corrective action, and a reporting requirement.*

Shell will need to implement new procedures, perform employee training, and modify employee scheduling to comply with the requirements of Condition F.3. Shell requests a reasonable amount of time to comply with this condition once the new Title V permit is issued.

Also, as discussed Shell intends to install a Continuous Emissions Monitoring System on the vapor recovery unit to comply with the requirements of 40CFR63 Subpart BBBBBB, and expects to submit a permit application for the CEMS shortly. Once the CEMS is installed, it is expected that the monitoring procedures of Condition F.3 will no longer be necessary.

Let me know if you have any questions or comments.  
Thank You, Theresa

-----Original Message-----

**From:** Rene Toledo [mailto:rtoledo@ysaqmd.org]  
**Sent:** Thursday, July 08, 2010 1:12 PM  
**To:** Geijer, Theresa A SPLC-DSD/623  
**Cc:** Mark Gruber  
**Subject:** Revised Response to Comments for Title V renewal (West Sac.) (resent)

Theresa and Mark,

Sorry, there was a typo in the deadline for revised Condition 0.1. The deadline for the annual report submission is January 30<sup>th</sup>, not July 30<sup>th</sup> following the reporting period. The attached PDF has the corrected language.

Please call me at 530-757-3679 with any questions you may have.

Thanks,

René Toledo  
Yolo-Solano AQMD  
530-757-3679

## Rene Toledo

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**From:** Kohn.Roger@epamail.epa.gov  
**Sent:** Friday, June 25, 2010 1:39 PM  
**To:** Rene Toledo  
**Subject:** Equilon CAM - Pressure Gauge Etc.

**Categories:** EPA

Hi Rene,

Getting back to you on your pressure gauge question. We think it would be reasonable to require Equilon to install a gauge that would produce an output that could be datalogged. That way there would be an automated data system that would provide readings every day, whereas manual inspection may not. Having said that, we'd defer to the District on this. If you're satisfied with the once per day manual inspection and recording, that certainly meets the minimum CAM requirement. (Of course there must be an indicator range in the permit to compare the observed values to, plus definition of excursion. And as I mentioned to Gary previously, we think a condition that specifically requires the facility to regenerate the carbon should be included.)

Roger Kohn  
USEPA Region 9 - Air Division (AIR-3)  
75 Hawthorne Street  
San Francisco, CA 94105-3901  
Phone 415-972-3973  
Fax: 415-947-3579

## Rene Toledo

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**From:** Kohn.Roger@epamail.epa.gov  
**Sent:** Thursday, May 20, 2010 5:19 PM  
**To:** Rene Toledo  
**Cc:** Susan McLaughlin  
**Subject:** EPA Comments on MM Yolo Power Renewal

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello Rene,

Finished sooner than I thought so I'll send my comments now.

I have reviewed the District's proposed renewal the title V permit for MM Yolo Power, and I offer the following comments. These issues are not specific to the MM Yolo Power permit. Rather, they are recommendations about improvements the District could make to all of its title V permits. Although we are highlighting some problematic District title V permitting practices, EPA recognizes that it may not be practical to address these issues in all existing permits at this time, or even when individual permits are being modified to address other issues. However, the title V permit renewal process is an excellent opportunity for the District to perform QA/QC on existing permits and make improvements based on lessons learned in title V program implementation. Therefore EPA strongly recommends that the District address these issues when it renews the MM Yolo Power permit, and make the same changes to all other title V permits when they are processed for renewal.

The annual compliance certification and semi-annual monitoring conditions in the District's title V permits are not practically enforceable. The conditions require the certifications to be submitted "every 12 months" and the monitoring reports to be submitted "every six months". However the permit does not specify the exact periods of time that these certifications and reports must cover, provide the source time following the end of the reporting period to compile the data, or specify a deadline by which the certifications and reports must be submitted to the District. The District should revise these conditions to clarify these requirements and make them practically enforceable. For example, the District could require that compliance certifications be postmarked by January 30 of each year (or some other reasonable date) and cover the previous calendar year. Similarly, the District could require that the semi-annual monitoring reports cover the periods from January 1 to June 30 and from July 1 to December 31, and be postmarked by the 30th day following the end of the reporting period. While we have found that a calendar year cycle works well, the District is free to set any 12 month cycle desired, as long as it is specified in the permit. Regardless of what approach the District chooses to address this issue, the District should revise sections IV.E and IV.L of the MM Yolo Power permit to correct this deficiency.

The District's EPA-approved title V rule require that "All compliance reports and other documents required to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." (See Rule 3.8, section 302.14.) District title V permits that EPA has reviewed recently, including the proposed MM Yolo Power renewal, do not contain this requirement. The District must add this language to the permit.

The District frequently streamlines multiple overlapping emission limits as allowed in EPA guidance (White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996). However, the citations of origin and authority for the streamlined emission limits in District title V permits refer only to the District NSR permits that contain the most stringent emission limits. In accordance with WP2, the District must also include all subsumed emission limits in these citations. When streamlining, it is important that title V permits cite all applicable requirements, including subsumed emission limits, because a source could be out of compliance with a streamlined limit but in compliance with one or more subsumed limits. Including complete authority citations in title V permits when streamlining has the added benefit of providing assurance to EPA and the public that all emission limits have been considered and included in the permit.

Roger Kohn  
USEPA Region 9 - Air Division (AIR-3)  
75 Hawthorne Street  
San Francisco, CA 94105-3901



RECEIVED JAN 19 2010

Shell Oil Products US

Seattle Terminal

2555 13th Ave SW.

Seattle, WA 98134

January 15, 2010

Gary Ma  
Yolo-Solano Air Quality Management District  
1947 Galileo Court, Suite 103  
Davis, CA 95618

**Subject: Equilon Enterprises LLC dba Shell Oil Products US  
West Sacramento Terminal  
1509 South River Road  
West Sacramento, CA 95691  
Revised Compliance Assurance Monitoring Plan**

Dear Mr. Ma:

Please find enclosed a revised Compliance Assurance Monitoring (CAM) plan for the Shell Oil Products US (Shell) West Sacramento Terminal. The enclosed CAM plan is intended to replace the CAM plan that was originally submitted with the Title V permit renewal application. The plan proposes to monitor, among other items, the vacuum level of the carbon beds during the carbon bed regeneration cycle. Please note that the vacuum level identified in the plan to trigger investigative action (-25" Hg) is based on a manufacturer recommendation and is not based on data collected for the specific vapor recovery unit at the West Sacramento Terminal. If monitoring data collected following implementation of the CAM plan indicates that the vacuum level should be adjusted, Shell will modify the plan as appropriate and in accordance with the requirements of 40 CFR Part 64 and local permitting requirements.

If you have any questions or need additional information, please contact me at (206) 618-9061.

Sincerely,

Theresa Geijer  
Environmental Coordinator

Enclosures

**Shell West Sacramento Terminal  
Compliance Assurance Monitoring Plan – Carbon Adsorption Vapor Recovery Unit**

**I. Background**

**A. Emissions unit identification**

Description:	Loading Rack
ID:	P-44-74(a2)
Facility:	Equilon Enterprises LLC dba Shell Oil Products US West Sacramento Terminal 1509 South River Road West Sacramento, CA 95691

**B. Applicable regulations, emission limits, and monitoring requirements**

Regulations:	40 CFR 60, Subpart XX Yolo-Solano AQMD Rule 2.21 - Organic Liquid Storage and Transfer
Emission Limits:	35 mg VOC per liter gasoline loaded (40 CFR 60, Subpart XX) 0.08 lbs VOC per 1,000 gal organic liquid transferred (District Rule 2.21) 0.053 lbs VOC per 1,000 gal organic liquid transferred (Title V Permit Condition 2)
Monitoring Requirements:	Monitor vacuum level during carbon bed regeneration cycle weekly, annual VRU source test, conduct a daily inspection and maintenance program, conduct a quarterly leak detection and repair program.

**C. Control technology description**

The pollutant specific emissions unit (PSEU) is a dual bed vacuum regenerative carbon adsorber used to reduce VOC emissions from the loading of petroleum products (e.g., gasoline, diesel fuel).

The activated carbon in each of the carbon beds is regenerated every 15 minutes. After a bed completes 15 minutes of vapor processing, the vapor stream is diverted to the other carbon bed and the spent bed goes through a regeneration cycle. Regeneration of the activated carbon is accomplished by subjecting it to a vacuum. The vacuum causes the adsorbed hydrocarbons to volatilize from the carbon. The desorbed hydrocarbons are pumped through an absorbing column where they are brought into contact with chilled gasoline and absorbed. The remaining air/vapor mixture is then passed through the on-line carbon bed to remove remaining hydrocarbons before venting to the atmosphere.

## II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. A daily inspection and maintenance program is conducted to verify proper operation of the vapor recovery unit (VRU). The level of vacuum achieved during each carbon bed's regeneration cycle will be monitored weekly to ensure each bed has been fully regenerated. Annual source testing is performed to ensure compliance with the permitted emission limit. Periodic leak checks of the vapor recovery unit also are conducted.

## III. Justification

Monitoring of the vacuum level during regeneration, coupled with regular inspection and maintenance activities and annual source testing, serves to verify that the VRU is operating properly and provide a reasonable assurance of compliance.

The first indicator is a daily inspection and maintenance program, following documented procedures. This program is performed by terminal operators. Operators are trained to recognize sight, smell, and sound anomalies that could indicate the VRU is not operating properly. The results of all inspections and any maintenance performed are recorded in an inspection log. Additionally, any daily inspection that reveals a potential problem will trigger monitoring of the vacuum level on each carbon bed as described below for Indicator #2. An excursion is defined as failure to conduct or document the required inspections or maintenance activities or failure to initiate corrective action within 48 hours to correct any problems identified during the inspection. All excursions will be documented and reported.

For the second indicator, monitoring of the vacuum level during carbon bed regeneration will be performed on a weekly basis, and when the daily sight, smell, and sound inspections reveal a potential problem. The carbon adsorber system was custom-designed specifically for this installation based on the maximum expected loading and types of products loaded. The carbon beds and vacuum pump were sized appropriately. The vacuum level during regeneration is an important variable in the performance of the VRU. If the carbon bed is overloaded, the time to achieve certain vacuum levels will be longer, and the bed will not be fully regenerated during the 15-minute cycle. As per manufacturer guidelines, if the regenerating carbon bed reaches at least -25 inches Hg during the vacuum cycle, the bed will be properly regenerated and will have the capacity to meet the VOC emissions limit under worst case loading conditions. Therefore, an excursion occurs when either regenerating bed does not reach at least -25 inches Hg during a regeneration cycle. An excursion will trigger an investigation, corrective action, and a reporting requirement.

For the third indicator, a source test on the Vapor Recovery Unit is performed annually. Source tests are performed by contracted personnel in accordance with California Air Resources Board Test Procedure TP-203.1. VOC concentrations are measured at the outlet of the carbon canisters, and compared with the quantity of organic liquids loaded during that time. An emission rate per quantity of liquid loaded is determined and compared with the permitted emission limit of 0.053 lbs/1,000 gallons of organic liquid loaded. An excursion occurs if the measured emissions exceed this level. When an excursion occurs, the loading rack will be shut down. An excursion will trigger an investigation, corrective action, and a reporting requirement.

For the fourth indicator, quarterly leak inspections of load rack and VRU components are performed by contracted maintenance personnel. An excursion is defined as detection of a gas or liquid leak (as defined in Yolo-Solano AQMD Rule 2.23) that is not repaired within time limits outlined in Rule 2.23, §302.1.a. All excursions will be documented and reported.

#### **IV. Additional Information**

The facility reserves the right to install additional monitoring equipment (e.g., a Continuous Emissions Monitoring System). In the event the facility chooses to do so, the Compliance Assurance Monitoring plan will be modified as appropriate and in accordance with the requirements of 40 CFR Part 64 and local permitting requirements.

**Table 1 - Monitoring Approach**

	Indicator #1	Indicator #2	Indicator #3	Indicator #4
<b>Performance indicator(s)</b>	Inspection and maintenance program.	Carbon bed pressure.	Source testing.	Leak inspections.
<b>Measurement approach</b>	Proper VRU operation is verified by performing periodic inspections and maintenance. Daily sight, smell, and sound checks are made on the load rack, bladder tank, and vapor recovery system.	Pressure gauge.	A source test is performed annually on the VRU to ensure compliance with the permit emission limit.	Quarterly leak inspections of load rack and VRU components are performed by a contracted maintenance personnel.
<b>Indicator range(s) or designated condition(s)</b>	An excursion occurs if the inspection is not performed or if corrective action is not initiated within 48 hours to correct any problems identified. An excursion will trigger an investigation, corrective action, and a reporting requirement.	An excursion occurs when the regenerating carbon bed does not reach at least -25 inches Hg during a regeneration cycle. An excursion will trigger an investigation, corrective action, and a reporting requirement.	The permitted emission limit is 0.053 pounds of VOC per 1,000 gallons of organic liquid loaded. An excursion occurs when the facility is notified that the official source test results show that emissions exceed this level. When the facility is notified of the excursion, the loading rack will be shut down. An excursion will trigger an investigation, corrective action, and a reporting requirement.	An excursion is defined as detection of a gas or liquid leak (as defined in Rule 2.23) during normal loading operations that is not repaired within time limits outlined in Rule 2.23, §302.1.a. An excursion will trigger an investigation, corrective action, and a reporting requirement.
<b>Data representativeness</b>	--	The pressure during the regeneration cycle is measured in the vacuum pump suction line.	A source test is a direct measurement of the performance of the VRU and ensures that the device is operating properly.	A handheld monitor is used to check for leaks in the vapor collection system.
<b>QA/QC practices</b>	Personnel are trained on inspection and maintenance procedures and proper frequencies.	Pressure gauge is calibrated per manufacturer's recommendations. <sup>4,7</sup>	The source test is conducted by a contractor and follows California Air Resources Board Test Procedure TP-203.1.	Follow procedures in 40 CFR 60, Appendix A, Method 21.
<b>Monitoring frequency</b>	Daily.	Weekly on each carbon bed.	Annually.	Quarterly.



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

December 16, 2009

Susan McLaughlin  
Supervising Air Quality Engineer  
Yolo-Solano Air Quality Management District  
1947 Galileo Ct., Ste 103  
Davis, CA 95618

Re: EPA Comments on Proposed Renewal of Title V Operating Permit for Equilon Enterprises

Dear Ms. McLaughlin:

Thank you for the opportunity to review the Yolo-Solano Air Quality Management District's ("District") proposed title V operating permit renewal for Equilon Enterprises, a petroleum bulk storage and loading terminal operation located in West Sacramento, CA.

We have enclosed our comments, which focus on carbon adsorber monitoring requirements under the Compliance Assurance Monitoring ("CAM") regulations. As we discussed with your staff, we look forward to working with the District to develop appropriate CAM conditions for inclusion in the final permit. Please contact Roger Kohn at (415) 972-3973 or [kohn.roger@epa.gov](mailto:kohn.roger@epa.gov) if you have any questions concerning our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Gerardo C. Rios".

Gerardo C. Rios  
Chief, Permits Office  
Air Division

**EPA Region 9 Comments  
Equilon Enterprises LLC  
Permit No. F-00386-3**

1. As we have discussed with your staff, the proposed permit lacks Compliance Assurance Monitoring (“CAM”) requirements for the carbon adsorption unit that controls VOC emissions from the loading rack. The permit contains only two CAM conditions (II.D.4. and E.4.1.). These conditions incorporate by reference two sections of the CAM regulations, §64.7 and §64.9. These sections of Part 64 merely contain generic requirements for the operation of approved monitoring, and reporting and record-keeping requirements. The District cannot satisfy CAM requirements by simply incorporating sections of Part 64 into the permit. Rather, Part 64 requires that sources submit CAM plans, and that permitting authorities develop CAM conditions based on these plans and discussions with sources.

The CAM plan included in Equilon’s permit renewal application proposes only to track when the adsorber is in use, and does not propose any indicator ranges or excursion definitions. We understand the source has contacted the District and intends to submit a revised CAM plan. The District must review the revised plan and add CAM conditions to the permit that ensure that the adsorber is monitored to ensure it operates properly. At a minimum, the final permit must contain all required CAM elements, including an indicator range(s), a monitoring frequency (at least once per 24 hours), appropriate record-keeping requirements, a definition of excursion (or exceedance), and appropriate compliance certification language.<sup>1</sup> We believe the District should include a regeneration or replacement cycle as part of the CAM requirements for this unit based on the manufacturer’s operation manual, requiring the towers to switch operation (e.g. stripping or absorbing) based on criteria such as a specific period of time or when there is a certain pressure build-up in the absorbing unit. We note that the source’s original CAM plan states that carbon will be “replaced when breakthrough is determined.” CAM for this type of control device should ensure that breakthrough does not occur. For more information and an example of CAM for a carbon adsorber on a loading rack, please see the example on this EPA webpage: <http://www.epa.gov/ttn/emc/cam/camsupp2.pdf>.

2. The statement of basis contains at least three inaccurate statements about versions of rules in the YSAQMD portion of the California State Implementation Plan (“SIP”):
  - The District states that the version of Rule 2.23 (Fugitive Hydrocarbon Emissions) adopted on August 13, 1997 is in the SIP; but the SIP version of this rule was adopted on March 23, 1994.
  - The District states that the version of Rule 3.1 (General Permit Requirements) adopted on February 23, 1994 is in the SIP; however the SIP does not contain any version of this rule.

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<sup>1</sup> Part 70 was revised when Part 64 was promulgated. One of the changes was to §70.6(c)(5)(iii), which now requires that annual compliance certifications “identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under part 64 of this chapter occurred.” The District must include this language in this and other title V permits with emission units subject to CAM.

- The District states that the version of Rule 3.4 (New Source Review) adopted on August 13, 1997 is in the SIP; but the SIP version of this rule was adopted on December 11, 1996.

The District should correct these statements and compare current versions of applicable rules with versions in the SIP to ensure that the final permit accurately reflects the content of SIP rules. Region 9 maintains a database of federally enforceable SIP rules on its website, which District permit writers may find useful when verifying SIP requirements. See [www.epa.gov/region09/air/sips/index.html](http://www.epa.gov/region09/air/sips/index.html).

3. The annual compliance certification requirement in this and all District permits must state that “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete;” in accordance with Rule 3.8 (section 302.14). The District must add this language to one of the conditions in section IV.N. of the permit.



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December 3, 2009

Ms. Susan McLaughlin  
Supervising Air Quality Engineer  
Yolo-Solano Air Pollution Control District  
1947 Galileo Court, Suite 103  
Davis, CA 95618

**Subject: Equilon Enterprises LLC dba Shell Oil Products US  
Sacramento Terminal  
Title V Operating Permit Renewal Draft – Written Comments  
Permit Number F-00386-3**

Dear Ms. McLaughlin:

We received and have reviewed the proposed renewed Title V Operating Permit (dated November 2, 2009) for the Shell (Equilon Enterprises LLC, dba Shell Oil Products US) terminal located at 1509 South River Road in West Sacramento, CA. Attached for your consideration is a table (3 pages), which summarizes our comments to the proposed permit renewal. Thank you for your consideration the opportunity to provide comments.

If you have any questions or need additional information please contact me at (206) 618-9061.

Sincerely,

Theresa Geijer  
Environmental Coordinator  
Shell Pipeline Company LP  
2555 13<sup>th</sup> Ave SW  
Seattle, WA 98134

Enclosure

cc: ADaniels File

Shell West Sacramento Terminal  
Proposed Title V Permit (11/2/09) - Comments to Yolo-Solano AQMD

Condition Number	Condition Text	#:	Comments to YSAQMD
--	Responsible Official: Name: Holly P. Kranzmann Title: Regional Operations Manager Phone: (310) 816-2009	Responsible official should be changed to:  Clorinda Nothstein Western Region Manager (310) 816-2009	
--	Site Contact Person: Name: Theresa Geijer Title: Environmental Coordinator Phone: (206) 224-0464	The stated phone number is the office number. Please add cell phone number to contact information. That number is (206) 618-9061.	
C1.36	For P-44-74(a2) [Loading Rack], the Permit Holder shall submit a maintenance plan to the APCO at least 7 days prior to performing maintenance on the loading rack. The plan shall state the equipment Permit to Operate number (unit identification number), a detailed description of the maintenance to be performed, the expected duration of the maintenance, the reason that the maintenance is necessary, emission control measures that will be employed, and the effect of not performing the maintenance. [District Rule 2.21, §501]	As per Rule 2.21, 501, the requirement to submit a maintenance plan only applies to storage tanks. Please remove this condition or provide justification for its inclusion.	

Shell West Sacramento Terminal  
Proposed Title V Permit (11/2/09) - Comments to Yolo-Solano AQMD

Condition Number	Condition Text	Comments to YSAQMD
D1.4	For internal floating roof tanks, the Permit Holder shall visually inspect the secondary seal, floating roof, and deck fittings and use an explosimeter that is calibrated in accordance with the manufacturer's specifications to measure the LEL of the storage tank. For each storage tank, inspections and measurements shall be completed at least once every 3 months at a distance of no less than 4 feet from the storage tank viewport or access hatch. [District Rule 2.21, §502.2.a]	The condition as it is written is ambiguous. It could be interpreted to mean that both visual inspections and LEL measurements shall be made 4 feet or less from the viewport. Shell believes the intent of the condition is to require LEL readings to be made at a distance of no less than 4 feet from the storage tank viewport or access hatch, but not visual inspections. Shell recommends the condition to be reworded as follows:  For internal floating roof tanks, the Permit Holder shall visually inspect the secondary seal, floating roof, and deck fittings and use an explosimeter that is calibrated in accordance with the manufacturer's specifications to measure the LEL of the storage tank. For each storage tank, inspections and LEL measurements shall be completed at least once every 3 months, and LEL measurements shall be taken at a distance of no less than 4 feet from the storage tank viewport or access hatch. [District Rule 2.21, §502.2.a]
D1.10	For P-44-74(a2) [Loading Rack], all source tests performed shall be documented in a report in accordance with the test methods and procedures specified in Section 600. The report shall include sufficient detail to verify compliance with all applicable rule requirements and shall be submitted to the APCO within 45 calendar days after the completion of the test. The source test report shall include the date of the test and names and titles of personnel performing the test. [District Rule 2.21, §503.2]	Shell notes that this condition does not require the Permit Holder to notify the District prior to any compliance source test event, or submit a source test protocol for approval 14 days prior to the test event. Has this requirement been removed? If not, please add that requirement as a separate condition, or as part of condition D1.10.

**Shell West Sacramento Terminal  
Proposed Title V Permit (11/2/09) - Comments to Yolo-Solano AQMD**

Condition Number	Condition Text	Comments to YSAQMD
D4.1	For P-44-74(a2) [Loading Rack], the Permit Holder shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64]	Shell has reviewed the compliance assurance monitoring (CAM) plan that was submitted with the Title V permit application renewal and found some technical deficiencies that should be corrected. A revised CAM plan will be submitted by December 31, 2009.
E4.1	For P-44-74(a2) [Loading Rack], the Permit Holder shall comply with the compliance assurance monitoring record-keeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64]	Shell has reviewed the compliance assurance monitoring (CAM) plan that was submitted with the Title V permit application renewal and found some technical deficiencies that should be corrected. A revised CAM plan will be submitted by December 31, 2009.