

**EVALUATION REPORT/Statement of Basis  
Chevron Products Co., Plant #10  
Application Number 7299/9782**

## **Background**

Chevron Products Co. (Chevron) is proposing a change in conditions for S-3202 External Floating Roof Storage Tank, 150 kbbbl capacity at its refinery located in Richmond. The tank throughput is increasing from 700,000 bbl/y to 4,000,000 bbl/y and the vapor pressure is increasing from 2.6 psia to 8.33 psia. The tank triggered BACT but at this time add-on controls are not cost effective. It may in the future be cost effective to purge with nitrogen and vent to carbon adsorption. The tank will comply with BACT level 2 which will require seals that comply with Regulation 8-5 and that an un-slotted guide pole or equivalent be used. To comply with BACT level 2, Chevron will add a liner in the guide pole extending from the top of the guide pole to below the level of the roof when the roof is landed on its legs.

### BACT Analysis

This application triggered BACT but the POC emissions were not great enough to justify the use of add on control. Chevron provided cost information for add-on control. This source will satisfy BACT level 2 through the use of primary and secondary seals that comply with Regulation 8-5. This is not a case-by-case determination since the BACT/TBACT Workbook covers this source category.

This application also requires 3.501 tons per year of POC offsets.

### Title V

This permit application to grant Chevron a change in conditions for S-3202 qualifies as a minor permit revision i.e. a revision to an existing Title V permit that is neither an administrative amendment as defined in Section 2-6-201 nor a significant permit revision as defined in Section 2-6-226. The proposed minor revisions are subject to a 45-day US EPA review, but are not subject to a public notice.

Changes in the Title V permit include changes to Table II-A-1, Table VII.F.1.10, and section VI.

## **Emission Calculations**

### Storage Tank

POC emission estimate for the tank was performed using Tanks 4.0.

POC:           7182.17 #/y, 3.28 tpy

Emissions from this tank were originally estimated to be 3 pounds per day or 1095 pounds per year.

### Increase in POC Emissions

POC:           7182.17 #/y – 1095 #/y = 6087.17 #/y, 3.044 tpy

Chevron will accept a permit condition limiting the benzene to a maximum of 8.1% by weight.

Benzene:       493.1 #/y



NESHAPS and PSD do not apply to this application.

Title V Monitoring

This application has added some new monitoring to prevent both VOC emissions increases and benzene emissions increases beyond those evaluated. Quarterly sampling or material specification sheets are now required to verify compliance with the benzene concentration limit.

**Recommendation**

Recommend that the following equipment be granted a Change of Conditions:

**S-3202      External Floating Roof Storage Tank, 150 kbbls capacity**

**Conditions**

See condition #13364. (attached)

by \_\_\_\_\_ date \_\_\_\_\_  
Gregory Solomon  
Senior Air Quality Engineer