

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
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AA <i>CD1</i>	#/Chevron	

PERMIT TO OPERATE

APPLICANT	Chevron Products Company
MAILING ADDRESS	601 Vail Street Montebello, CA 90640-4951
EQUIPMENT LOCATION	Same as above

Equipment Description:

A/N 508212

STORAGE TANK, FIXED ROOF, NO. 4, DIESEL, 50,000 BARRELS, 94' -0" DIA. X 48' -0" H.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THROUGHPUT TO THIS TANK OF ORGANIC LIQUIDS SHALL NOT EXCEED 27,800 BARRELS PER DAY. THROUGHPUT RECORDS, IN ADDITION TO THOSE RECORDS REQUIRED BY RULE 463(B)(4) SHALL BE MAINTAINED FOR A 2-YEAR PERIOD AND BE AVAILABLE FOR INSPECTION BY AUTHORIZED DISTRICT PERSONNEL.
[RULE 463, RULE 1303(b)(2) - OFFSETS]

PERIODIC MONITORING: NONE

EMISSIONS AND REQUIREMENTS:

4. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 463
VOC: RULE 1149

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A/N 509197

APPLICATION FOR REVISION OF TITLE V FACILITY
PERMIT REVISION

BACKGROUND

Chevron operates a gasoline and diesel bulk terminal in Montebello under facility ID No. 54264 which is subject to Title V and not subject to RECLAIM. Chevron's initial submittal under application 508212 was to increase the throughput in its diesel tank No. 4 from 22,472 to 39,900 barrels/day. An updated proposal dated 3-22-2010 was submitted by URS to increase from 22,472 to 27,800 barrels/day. The tank is currently operated under application 228675, permit D40373, under which the tank number is 50004. It will be identified as tank 4. No enforcement activity has been found in the inspectors report for this facility. Application 509197 is the Title V revision application for a 'De Minimus Significant Revision' to the current Title V Facility Permit issued on May 25, 2009, and previously revised on January 15, 2010.

EQUIPMENT DESCRIPTION

This is a fixed roof tank with breather vent settings of +/- 0.03 psig. Please refer to Chevron's report that is included in this application folder prepared by URS Corporation for a description of the equipment and more details. No changes have been made to the equipment itself, only the throughput will change. Increasing the throughput will not impact the equipment configuration.

CALCULATIONS

The TANKS 4.09d program was used to calculate the emissions resulting from tank No. 4. URS has submitted the tank calculations for both before and after the increase in throughput. The District engineer has run the TANKS program and confirmed the URS result to be accurate. The turnovers in the calculation results do not match the turnovers listed in the proposed permit condition. The throughput does so the emissions calculations are correct. The before and after throughput is based on 12 months, 30 days/month, and 24 hrs/day:

New throughput - 27,800 bbl/day x365 days/yr = 10,147,000 bbl/yr → 426,174,000 gal/yr

Current throughput - 22,472 bbl/day x365 days/yr = 8,202,280 bbl/yr → 344,495,760 gal/yr

	VOC (lb/yr)	VOC (lb/day) max	VOC (lb/hr)max
Tank 4 (27,800 bbl/day)	4179.93	11.611	0.4837
Tank 4 (22,472 bbl/day)	3822.35	10.618	0.4424
Increase	357.58	0.993	0.0414

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OFFSETS – 0.993 lb/day (1.2) = 1.192 lb/day → 1 lb/day ERCs
 BACT _ 357.58 lb/yr /365 days/yr = 0.980 lb/day

Toxic emissions are calculated based on the weight percent of toxic compounds present in the VOC vapor. These values are generated by the tanks program as listed below:

TOXIC COMPOUND	Proposed (lb/yr)	Current (lb/yr)	Difference (lb/yr)	Difference (lb/hr)
Benzene (including benzene from gasoline)	44.91	40.71	4.20	4.79E-4
Ethyl benzene	33.88	30.71	3.17	3.62E-4
Toluene (methyl benzene)	89.44	81.08	8.36	9.54E-4
Xylenes (isomers and mixtures)	141.45	128.23	13.22	1.51E-3
Napthalene	0.12	0.11	0.01	1.14E-6

A tier two toxic screening calculation was done by the applicant for the entire emissions of the proposed increase. A Google map search shows the nearest receptors are 70 meters commercial and 130 meters residential. The applicant has used the incorrect values of 238 meters residential and 1000 meters commercial. The table above shows the increase in toxic emissions which were used to do a risk assessment on the increase in toxic emissions. Please refer to the attached Excel spreadsheet by the District engineer for the updated calculations. The resulting risk is very small even with the smaller receptor values.

	District Values
Residential MICR	2.10E-08
Commercial MICR	7.75E-09

EVALUATION

- Rule 212** A public notice is not required since no schools are located within 1000 feet of the site, the MICR risk is less than 10 in a million for a single source, and the R212 (g) thresholds are not exceeded.
- Rule 401** The equipment is not expected to emit visible emissions which would exceed the limits of this Rule. Therefore, compliance is expected.
- Rule 402** The equipment is not expected to emit odorous emissions which would cause a public nuisance. Therefore, compliance is expected.

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Rule 463 The increase in throughput will continue to comply with this rule because the vapor pressure of diesel is lower than stipulated in this rule.

Rule1149 During degassing and cleaning, this tank is subject to Rule 1149, and the operation is expected to comply with the applicable provision of the rule.

Rule1178 The increase in throughput will not impact this rule. The vapor pressure of diesel is lower than stipulated in this rule. This rule is not applicable.

Reg. IX Standards of Performance for New Stationary Sources – 40CFR60 Subpart Kb 40
The increase in throughput will not impact this rule. The vapor pressure of diesel is lower than stipulated in this rule. This rule is not applicable.

Reg. X National emission Standards for Hazardous Air Pollutants

40CFR63 Subpart R - The facility is not considered a major source because it does not emit or have the potential emit ≥ 10 tons/yr of a single hazardous air pollutant, or ≥ 25 tons/yr of any combination of hazardous air pollutants. Minor source R is applicable, and is included in the facility wide conditions on the Title V permit.

Reg. XIII 1303(a) – The tank emissions are kept under 1 lb/day by a daily throughput permit condition and thus BACT is not required.
1303(b)(1) - The emissions are below table A-1 limits, hence modeling is not required.
1303(b)(2) - The 30 day per month daily emission is 0.993 lb/day requiring 1 pound of ERC offsets. Chevron has ERC AQ006011 in amount of 8 lbs/day. Therefore, the proposed operation complies with NSR under Reg. XIII.
1303(b)(4) – This facility complies with all applicable rules and regulations of the District.
1303(b)(5) – This is not a major modification because the potential to emit is under 1 lb/day. Compliance is expected.

RULE 1401 The attached Excel spreadsheet shows that the cancer burden is less than 0.5 and the tier II calculation shows a risk increase of 0.02 in a million. All chronic and acute hazard indices are below 1.0 for all organ receptors. Therefore, the proposed operation complies with Rule 1401.

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Reg. XXX This is a Title V facility under the unitized ID 800032. A Title V revision application has been submitted for this change. This is De-minimus Significant Revision. Please note that this does not meet the requirements of Minor Permit Revision under 3000(b)(12)(A)(vi) because of the increase of a hazardous air and Reg XIII (VOC) pollutants, and the cumulative increase of VOC emissions does not exceed 30 lbs/day of VOC for a 'deminimus significant' Title V Facility Permit Revision.

RECOMMENDATION

THE FOLLOWING DISPOSITION IS RECOMMENDED:

Approve A/N 508212 for a PC/PO and issue a Revised T V facility permit under A/N 509197 subject to a 45 day EPA Review of the draft Title V Facility Permit Revision.