ENGINEERING GDF EVALUATION

April 17, 2003

SONOMA HIGHWAY. CHEVRON. – REDWOOD OIL COMPANY; GDF#5021
Application #6244

Redwood Oil Company. on behalf of Sonoma Highway Chevron, submitted this application to increase the gasoline volume sales. The facility is located at 4925 Sonoma Hwy., Santa Rosa, CA.

This station is within 1000 feet of the outer boundary of Whited (Douglas) Elementary School. California Health and Safety Code Section 42301.6 requires that a public notice be prepared and distributed to each address located within 1000 feet of a source that emits hazardous air emissions. In addition, the public notice must be distributed to parents and guardians of students enrolled in any school that is located within one-quarter mile of the Sonoma Highway Chevron Station.

The Sonoma Highway Chevron facility operates the following equipment: Three (3) underground fuel storage tanks. Two (2) 7,000 gasoline, one (1) 5,000 gasoline and one (1) 5,000 diesel fuel tanks with associated piping. Four (4) gasoline dispensers equipped with eight (8) three-product gasoline nozzles (unihose). This facility is equipped with Phase I (Coaxial) and Phase II (Balance) vapor recovery systems.

The gasoline dispensing equipment described above will not be modified and is therefore was not subject to the Enhanced Vapor Recovery (EVR) requirements effective July 1, 2001.

Emission Calculations:

Emission factors are taken from the Gasoline Service Station Industrywide Risk Assessment Guidelines developed by the California Air Pollution Officers Association's (CAPCOA) Toxics Committee. The increased emissions of POC (HC) include emissions from loading, breathing, refueling and spillage. The new annual gasoline throughput limit for this facility is based on a Risk Screening Assessment and Regulation 8-7-301 and 302.

POC (HC) = (1.27 lb/1000 gal)(3.48 MM gal/yr) = 5,612.9 lb/yr
= 15.4 lb/day (365 day/yr)
Cumulative Increase = 2.8 TPY

Toxics Emissions and Risk Screening Analysis:

The toxic air contaminant of concern at this site is benzene, a carcinogen. Benzene is emitted during gasoline dispensing operations. The estimated increase in emission rate and annual emissions of benzene are greater than the toxic trigger level (23.5 lb/yr), therefore an Air Toxics Risk Screening is required. According to the risk screening analysis, the maximum cancer risk is 10 chances in a million and the risk at the school is 0.1 chances in a million for proposed increase of annualized gasoline sales (Ref.; Interoffice Memorandum dated 4/2/2003). This level of risk is considered acceptable under the District's Risk Management Policy for operations that meet the requirements for BACT. As defined in the Toxic Division Risk Management Policy, the impact is acceptable and the facility passes the screening assessment

Statement of Compliance:

The operation of the gasoline dispensing facility is subject to and in compliance with Regulation 8 – Organic Compounds, Rule 7 – Gasoline Dispensing Facilities and California Air Resources Board (CARB) Executive Order G-70-97-A and G-70-17-AD. The operation of this facility meets the requirement of 8-7-301 and 302 (Phase I and Phase II, respectively).
This operation triggers TBACT. Compliance with TBACT for a gasoline dispensing facilities is achieved by limiting the annual gasoline sales to a maximum annual throughput increase that corresponds to a

cancer risk of ten in a million. TBACT is compliance with Regulation 8-7-301 through 312 and conformance with CARB certification demonstrated through piping configuration, equipment list and District source test procedures (District approved ST-27 and 30 test results).

This project is considered to be ministerial under Regulation 2-1-311 because it is evaluated in accordance with Chapter 3.2 of the Permit Handbook (Gasoline Dispensing Facilities). And, therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard conditions and standard emission factors and therefore is ministerial as defined by CEQA.

Permit Conditions:

Pursuant to BAAQMD Toxic Section Policy, this facility's annual gasoline throughput shall not exceed 5.18 million gallons in any consecutive 12-month period.

Recommendation:

I recommend that a Permit to Operate be issued to Sonoma Highway Chevron. – Redwood Oil Company located at 4925 Sonoma Highway, Santa Rosa, limiting the annual gasoline quantity to the total amount determined by the risk screening analysis.

Exemptions:

None

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By: John Joseph
Permit Coordinator