

## DRAFT ENGINEERING EVALUATION

Facility ID No. 202323  
Sonoma Valley Unified SD Operations Yard  
18751 Railroad Avenue, Sonoma, CA 95476  
Application No. 642617

### BACKGROUND

The applicant has requested an Authority to Construct and Permit to Operate for the following:

#### **S-1 Gasoline Dispensing Facility**

The facility configuration is described below:

Current Configuration	Post Construction
1 - 2,000 gallons gasoline ASTs	No change
Phase I Non-EVR Two Point (VR-301 and G-70-102)	Phase I Morrison Brothers EVR w/ SLC (VR-402)
Phase II Balance (Non-EVR) (G-70-116F and G-70-52AM)	No change
1 single product gasoline nozzles	No change
1 - 6,000 gallons diesel tank	No change
1 diesel nozzles	No change
28,000 gallons of gasoline per year throughput limit	No change

This is an existing unpermitted GDF that has been in operation since 1996.

The installed AST is Standing Loss Control compliant. It is a ConVault protected tank, it has been recently repainted with and PPG High Performance Coating Durethane DTM White Base (95-3301), and it is equipped with a Husky Model 5885 P/V valve.

The tank was installed with a Phase I Non-EVR Two-Point system and Phase II Non-EVR Balance system. The facility is installing Phase I Morrison Brothers EVR w/ SLC per VR-402 and has requested a throughput of 28,000 gallons of gasoline per year.

This application is being processed as a new source defined in Regulation 2-1-232.

### EMISSION CALCULATIONS

Table 1 summarizes annual and daily permitted emissions.

**Table 1. Annual and Daily Emissions**

Criteria Pollutant	Emissions Factors (lb/thousand gallon)	Annual Average Emissions (lb/day)	Annual Emissions (lb/year)	Annual Emissions (ton/year)
POC	0.857	0.07	23.99	0.01

Basis:

- Annual throughput of Unleaded Gasoline: 28,000 gallons per year
- Operation schedule: 9 hr/day (max), 9 hr/day (typical), 5 day/week, 52 week/yr
- Phase I EVR for AST
- Phase II Non-EVR for AST
- POC is Precursor Organic Compound.
- Emissions of POC include emissions from loading, breathing, refueling and spillage
- Emission factors are taken from the California Air Resources Board's 1997 Industrywide Risk Assessment for Gasoline Dispensing Facilities and 2015 Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks (CP-206)

### **FACILITY CUMULATIVE INCREASE**

Table 2 summarizes the cumulative increase in criteria pollutant emissions that will result from this application.

**Table 2. Facility Cumulative Emissions Increase, Post 4/5/91**

Cumulative Increase	Existing Emissions (ton/yr)	Application Emissions (tons/yr)	Total Emissions (tons/yr)
POC	0.0	0.01	0.01

### **TOXIC EMISSIONS AND HEALTH RISK ASSESSMENT (HRA)**

A Health Risk Assessment (HRA) is required when the emissions of toxic air contaminants (TACs) are at or exceed the trigger levels outlined in Regulation 2, Rule 5, Table 2-5-1. An HRA is not required, based on the toxic emissions for this source, summarized in Table 3.

**Table 3. Toxic Emissions**

TACs	Category	Emissions (Chronic) (lb/yr)	Emissions (Maximum) (lb/hr)	Reg 2-5 Chronic Trigger (lb/yr)	Reg 2-5 Acute Trigger (lb/hr)	HRA Required
Benzene	Both Carcinogen and Other	0.123	0.00205	2.90	0.06	No
Ethylbenzene	Both Carcinogen and Other	0.102	0.00100	33.00	n/a	No
Hexane	TAC - Other	0.426	0.00775	270000.00	n/a	No
Naphthalene	TAC - Other	0.011	0.00008	2.40	n/a	No
Toluene	TAC - Other	0.560	0.00687	12000.00	82.00	No
Xylene	TAC - Other	0.504	0.00464	27000.00	49.00	No

Basis:

- Emission factors are taken from the California Air Resources Board's 1997 Industrywide Risk Assessment for Gasoline Dispensing Facilities and 2015 Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks (CP-206).
- Composition Data is from ARB Organic Gas Speciation Profiles for E10 Gasoline Fuels (Liquid and Headspace for both Summer and Winter blends), revised 2013 and 2015
- Hourly emissions are calculated in accordance with BAAQMD's Air Toxics NSR Program HRA Guidelines for GDFs, dated December 2016.

## **STATEMENT OF COMPLIANCE**

The owner/operator is expected to comply with all applicable requirements. Key requirements are listed below:

### **California Environmental Quality Act (CEQA), Regulation 2-1-311**

This permit application is not subject to CEQA because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the Permit Handbook Chapter 3.2. The Procedures for Ministerial Evaluation (Section 2-1-427) and Criteria for Approval of Ministerial Permit Applications (Section 2-1-428) have been complied with in the determination that this application is exempt from CEQA.

### **Public Notification, Regulation 2-1-412**

The facility is located within 1000 feet of the outer boundary of El Verano Elementary School, located at 18606 Riverside Drive, and therefore subject to the public notification requirements

A public notice has been prepared and sent to all addresses within 1,000 feet of the proposed source and to the parents or guardians of students enrolled at the school.

### **Best Available Control Technology (BACT), Regulation 2-2-301**

Because this GDF will emit less than 10 pounds of POC per day, the facility is not required to install BACT.

### **Offsets, Regulation 2-2-302**

Because the total facility emissions will be less than 10 tons per year, the facility is not required to provide offsets.

### **Toxic Air Contaminants, Low Emission Levels Exemption, Regulation 2-5-110**

This project is not subject to Regulation 2, Rule 5 because toxic air contaminant emissions are below the acute and chronic trigger levels listed in Table 2-5-1.

### **District Rules (Limits to emissions of pollutants or performance standards)**

Regulation 8-7 (Organic Compounds – Gasoline Dispensing Facilities)

Section 8-7-301 – Phase I Requirements

Section 8-7-302 – Phase II Requirements

Section 8-7-304 – Certification Requirements

### **California Air Resources Board (CARB) Vapor Recovery Certification**

Standing Loss Control requirements per VR-301, the requirements of ConVault AST Filling/Dispensing Vapor Recovery System per G-70-116F, the requirements of Phase I Morrison Brothers EVR w/ SLC per VR-402 and Phase II Non-EVR Balance System per G-70-52AM.

### **Airborne Toxic Control Measure for Benzene for Retail Service Stations**

ATCM, 5/13/1988, Section 93101, Title 17, CA Code of Regulations.

**National Emissions Standards for Hazardous Air Pollutants (NESHAP)**  
40 CFR 63, Subpart CCCCCC (*Gasoline Dispensing Facilities*)

**CONDITIONS**

**Authority to Construct Conditions**

This GDF is subject to the following Construction Conditions:

1. The owner/operator shall install, operate, and maintain the Phase I Morrison Brothers EVR w/ SLC system in accordance with CARB Executive Order VR-402 and the corresponding System Installation, Operation, and Maintenance Manual.

**Start-up Conditions**

This GDF is subject to the following Start-up Conditions:

1. The owner/operator shall ensure the performance tests are successfully conducted at least ten (10) days, but no more than thirty (30) days after start-up. To comply with this condition, all tests shall be conducted after back-filling, paving, and installation of all required Phase I and Phase II components.
2. The owner/operator shall ensure the following vapor recovery system tests are successfully conducted in accordance with the latest version of CARB E.O. VR-401.
  - a. A Static Pressure Performance Test using CARB procedure TP-201.3.

**Operating Conditions**

This GDF is subject to the following Operating Conditions:

Condition Number	Condition Type
100013	Operational, Annual Throughput Limit
100015	Vapor Recovery System, Phase I
100016	Vapor Recovery System, Phase II
100036	Source Testing Notification
100048	Vapor Recovery System, Phase I
100051	Record Keeping
100054	Vapor Recovery Source Testing

**RECOMMENDATION**

The District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of

District, state and federal air quality-related regulations. The preliminary recommendation is to issue an Authority to Construct/Permit to Operate for the equipment listed below. However, the proposed source will be located within 1000 feet of a school which triggers the public notification requirements of District Regulation 2-1-412. After the comments are received and reviewed, the District will make a final determination on the permit.

I recommend that the District initiate a public notice and consider any comments received prior to taking any final action on issuance of an Authority to Construct/Permit to Operate to change permit conditions for the following source:

**S-1 Gasoline Dispensing Facility**

Prepared by: Annie Allen, Air Quality Technician

Date: XX/XX/XXXX

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