

## DRAFT ENGINEERING EVALUATION

Facility ID No. 111979  
Super Gas & Mart  
498 S 4th St, San Jose, CA 95112  
Application No. 692339

### **BACKGROUND**

The applicant has requested to modify the Permit to Operate for the following equipment:

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

The facility configurations are described below:

Current Configuration	Configuration after Modification
2 gasoline USTs (1 - 10,000 gal and 1 - 5,000 gal)	No change
Phase I OPW EVR (VR-102)	No change
Phase II Balance EVR with FFS Healy Clean Air Separator (HCAS) (VR-203)	Phase II Balance EVR with FFS Healy Clean Air Separator (HCAS) and Veeder-Root ISD (VR-204)
4 triple product gasoline nozzles	No change
600,000 gallons of gasoline per year throughput limit	1.0 million gallons of gasoline per year throughput limit

This project involves installing the Veeder-Root ISD system and upgrading ISD software as necessary per VR-204 and requesting a throughput increase to 1.0 million gallons of gasoline per year.

This application is being processed as a modification as defined in Regulation 2-1-234.

### **EMISSION CALCULATIONS**

The owner submitted the following throughput levels for the past 3 years:

**Table 1. Historic Material Throughput**

Year	Throughput Level gallons per year
2022	762,488
2021	303,133
2020	548,848

Table 2 summarizes annual and daily permitted emissions.

**Table 2. 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	0.302	0.83	301.88	0.15

Basis:

- Annual throughput of Unleaded Gasoline: 1.0 million gallons per year
- Operation schedule: 16 hr/day (max), 8 hr/day (typical), 7 day/week, 52 week/yr
- Phase I EVR for UST
- Phase II EVR for UST
- 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 "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities" (12/23/13).

### **FACILITY CUMULATIVE INCREASE**

Table 3 summarizes the cumulative increase in criteria pollutant emissions that will result from this application.

**Table 3. Facility Cumulative Emissions Increase, Post 4/5/91**

Cumulative Increase	Existing Emissions (ton/yr)	Application Emissions (tons/yr)	Total Emissions (tons/yr)
POC	0.09	0.06	0.15

### **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 4.

**Table 4. 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	1.503	0.00850	2.9	0.06	No
Ethylbenzene	Both Carcinogen and Other	0.912	0.00245	33	n/a	No
Hexane	TAC - Other	5.521	0.03360	270000	n/a	No
Naphthalene	TAC - Other	0.088	0.00008	2.4	n/a	No
Toluene	TAC - Other	5.629	0.02239	12000	82	No
Xylene	TAC - Other	4.322	0.00999	27000	49	No

Basis:

- Emission factors are taken from the California Air Resources Board's "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities" (12/23/13).
- 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 Notre Dame High School, located at 596 South Second Street, San Jose, CA 95112, 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, and the following schools within ¼ mile of the source: Lowell Elementary School, located at 625 South 7<sup>th</sup> Street, San Jose, CA 95112.

### **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 potential to emit will be less than 10 tons of POC 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**

Phase I and Phase II Vapor Recovery System Executive Orders VR-102 and VR-204, including changing flowmeters and upgrading the ISD software.

### **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 OPW EVR system in accordance with CARB Executive Order VR-102 and the corresponding System Installation, Operation and Maintenance Manual.
2. The owner/operator shall install, operate, and maintain the Phase II Balance EVR with FFS Healy Clean Air Separator (HCAS) and Veeder-Root ISD in accordance with CARB Executive Order VR-204 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- 102 and E.O. VR-204.
  - a. Static Pressure Performance Test using CARB Test Procedure TP-201.3.
  - b. Dynamic Back Pressure Test using CARB Test Procedure TP-201.4.
  - c. One of the following tests is applicable. The measured leak rate for each component shall be within the limits set in the applicable CARB Executive Order:
    - Stations equipped with drop tube overfill prevention devices ("flapper valves"): a Drop Tube Overfill Prevention Device and Spill Container Drain Valve Leak Test in accordance with CARB Test Procedure TP-201.1D and the applicable CARB Executive Order.
    - All other stations: a Drop Tube/Drain Valve Assembly Leak Test in accordance with CARB Test Procedure TP-201.1C and the applicable CARB Executive Order.
  - d. Liquid Removal Test.
  - e. Vapor Pressure Sensor Verification Test.
  - f. Franklin Fueling Systems HCAS Static Pressure Performance Procedure Test.
  - g. Nozzle Bag Test on all nozzles.
  - h. ISD Operability Test applicable to the manufacturer.

**Operating Conditions**

This GDF is subject to the following Operating Conditions:

Condition Number #100013

The owner/operator shall not allow the total fuel dispensed at this source to exceed the following limits during any consecutive 12-month period:

- 1.0 million gallons of gasoline - unleaded

Condition Number #100015

The owner/operator shall ensure the Phase I OPW EVR is installed, operated, and maintained in accordance with the most recent revision of the California Air Resources Board (CARB) Executive Order (EO) VR-102.

Condition Number #100016

The owner/operator shall ensure the Phase II Balance System with Vapor Polisher and V.R. ISD is installed, operated, and maintained in accordance with the most recent revision of the California Air Resources Board (CARB) Executive Order (EO) VR-204.

Condition Number #100036

The owner/operator shall:

1. Notify Source Test by email ([gdfnotice@baaqmd.gov](mailto:gdfnotice@baaqmd.gov)) or Fax (510-758-3087), at least 48 hours prior to any required testing.
2. Submit test results in a District approved format within thirty (30) days of testing.
  - For start-up tests results, cover sheet shall include the facility number (Facility ID) and application number of the Authority to Construct permit.
  - For annual test results, cover sheet shall include the facility number (Facility ID) and identified as 'Annual' in lieu of the application number.
  - Test results shall be emailed ([gdfresults@baaqmd.gov](mailto:gdfresults@baaqmd.gov)) or mailed to the Districts main office.

Condition Number #100037

The owner/operator shall conduct and pass the following tests at the indicated intervals:

1. A Static Pressure Performance Test, in accordance with CARB procedure TP-201.3 at least once in each 12-month period.
2. Phase I Adaptor Static Torque Test on all rotatable Phase I adaptors in accordance with CARB TP-201.1B at least once in each 36-month period.
3. One of the following tests in each 36-month period. The measured leak rate for each component shall be within the limits set in the applicable CARB Executive Order:
  - Stations equipped with drop tube overfill prevention devices ("flapper valves"): a Drop Tube Overfill Prevention Device and Spill Container Drain Valve Leak Test in accordance with CARB Test Procedure TP-201.1D and the applicable CARB Executive Order.
  - All other stations: a Drop Tube/Drain Valve Assembly Leak Test in accordance with CARB Test Procedure TP-201.1C and the applicable CARB Executive Order.

Condition Number #100050

The owner/operator shall ensure that the Phase II Balance EVR system with the Franklin Fueling System Clean Air Separator (HCAS) and ISD can demonstrate on-going compliance with the vapor integrity requirements of CARB Executive Order E.O. VR-204 by conducting and passing the following tests at least once in each consecutive 12-month period following successful completion of start-up testing. The owner/operator shall ensure tests are conducted and evaluated using the referenced test methods and standards from the latest version of the applicable executive order and/or test procedure.

1. Dynamic Back Pressure Test using CARB Test Procedure TP-201.4
2. Liquid Removal Test Vapor Pressure Sensor Verification Test
3. HCAS Static Pressure Test
4. ISD Vapor Flow Meter Operability Test

Condition Number #100051

The owner/operator of the facility shall maintain the following records. Records shall be maintained on site and made available for inspection for a period of 24 months from the date the record is made.

1. Monthly totals of throughput (sales) of gasoline (all-grades) and other fuels pumped and summarized on an annual basis for each type of fuel (excluding diesel).
2. All scheduled testing and maintenance activities, including:
  - the date of maintenance, inspection, failure and, if applicable, ISD alarm history;
  - the date and time of maintenance call;
  - the maintenance performed;
  - Certified Technician ID number or name of individual conducting maintenance and their phone number.
3. Weekly, quarterly and annual inspection sheets as required by the appropriate CARB Executive Orders.

**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 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**

By: Becky Yu, Senior Air Quality Technician    Date: 11/29/2023