EVALUATION REPORT

7-11, # 37536
925 Cutting Blvd
Richmond, CA 94804
FID #200526
Application #420061

BACKGROUND

Walton Engineering submitted this application to obtain a permit for a brand-new site. The facility seeks a permit for the following device:

S-1 Gasoline Dispensing Facility

The facility configurations are described below:

Proposed Construction
One 20,000 gal gasoline USTs
One 8,000 gal gasoline USTs
One 12,000 gal diesel USTs
Phase I OPW EVR (VR-102)
Phase II Balance EVR with Vapor Polisher and ISD (VR-204)
8 triple product gasoline nozzles
4 diesel nozzles
1.37 million gallons of gasoline per year throughput limit

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

EMISSION CALCULATIONS

This new gas station is being evaluated for a throughput increase to a total of 1.37 million gallons per year from a baseline of zero.

Pollutant	Emissions Factors (lb/thousand gallon)	Emissions (lb/day)	Emissions (lb/year)	Emissions (ton/year)
POC	0.592	2.22	811.04	0.4
Benzene	0.00389	0.015	5.33	0.003

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). Emissions of Precursor Organic Compound (POC) include emissions from loading, breathing, refueling and spillage. At the proposed permitted throughput, benzene emissions from this application are 5.33 pounds per year, which is greater than the 2.9 pound per year benzene trigger limit. Facilities

emitting 2.9 pounds per year benzene or more exceed the benzene trigger level and thus do require a Health Risk Analysis.

NEW SOURCE REVIEW

Best Available Control Technology (BACT), Regulation 2-2-301: Because the total facility emissions will be less than 10 pounds per day, the facility is not required to install BACT. BACT for GDFs is considered the use of CARB-certified Phase I and Phase II enhanced vapor recovery equipment.

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: The expected increased health risk from this project will exceed 1 per million, thus TBACT requirement is triggered. TBACT for GDFs requires the use of CARB certified Phase I and Phase II vapor recovery equipment.

Project Risk Requirement, Regulation 2-5-302: At the proposed throughput, the increased cancer risk does not exceed 10 in one million, the chronic and acute hazard indexes do not exceed 1, and therefore the project complies with the project risk requirement.

STATEMENT OF COMPLIANCE

Permits – General Requirements, Regulation 2, Rule 1

California Environmental Quality Act (CEQA), Regulation 2-1-311: This project is considered to be ministerial under Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 3.2 and therefore is not discretionary as defined by CEQA.

Public Notification, Regulation 2-1-412: The facility is located within 1000 feet of the outer boundary of Nystrom Elementary School located at 230 Harbor Way South, Richmond, California as well as within a quarter mile of Richmond College Prep Charter School located at 217 S. 11th St, Richmond, California, 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 Nystrom Elementary School and Richmond College Prep Charter School.

Gasoline Dispensing Facilities, Regulation 8-7-301 and 302: The owner/operator is expected to comply with Phase I and Phase II requirements of BAAQMD Regulation 8, Rule 7.

California Air Resources Board (CARB) Vapor Recovery Certification, VR-102, and VR-204: The owner/operator is expected to comply with Enhanced Vapor Recovery (EVR) requirements of Phase I OPW EVR and Phase II Balance EVR with Vapor Polisher and ISD.

CONDITIONS

Start Up Conditions for S-1

The following performance tests shall be successfully conducted at least ten (10) days, but no more than thirty (30) days after start-up. For the purpose of compliance with this Condition, all tests shall be conducted after back-filling, paving, and installation of all required Phase I components:

1. **A Static Pressure Performance Test, in accordance with CARB procedure TP-201.3 or the applicable equivalent District test procedure (ST-30) at least once in each 12-month period. If the tank size is 500 gallons or less, the test shall be performed on an empty tank.**
2. **Phase I Adaptor Static Torque Test on all rotatable Phase I adaptors in accordance with CARB TP-201.3 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:**
    a. **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.**
4. **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**.
5. **Dynamic Back Pressure Test - TP-201.4 (7/3/02) in accordance with the condition listed in item 1 of the Vapor Collection Section of E.O. VR-204, Exhibit 2. The dynamic back pressure shall not exceed 0.35" WC @ 60 CFH and 0.62" WC @ 80 CFH**
6. **Liquid Removal Test in accordance with E.O. VR-204, Option 1 (Only test hoses containing more than 25 ml liquid)**
7. **Nozzle Bag Test on all nozzles in accordance with E.O. VR-204**
8. **Vapor Pressure Sensor Verification Test in accordance with E.O. VR-204**
9. **Veeder-Root Vapor Polisher Operability Test in accordance with E.O. VR-204**
10. **Veeder-Root Vapor Polisher Emissions Test in accordance with E.O. VR-204**
11. **ISD Vapor Flow Meter Operability Test in accordance with E.O. VR-204**

Permit to Operate Conditions for S-1

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:

- 1.37 Million Gallons of Gasoline - Unleaded

Condition Number #100014

The owner/operator of the source shall complete source testing per the applicable Executive Order. The owner/operator shall notify BAAQMD Source Test Division and submit source test results.

Condition Number #100015

The Phase I OPW EVR shall be 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 Phase II Balance System with Vapor Polisher and V.R. ISD shall be 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) 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) 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 or the applicable equivalent District test procedure (ST-30) at least once in each 12-month period. If the tank size is 500 gallons or less, the test shall be performed on an empty tank.
2. Phase I Adaptor Static Torque Test on all rotatable Phase I adaptors in accordance with CARB TP-201.3 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 #100043

The Phase II Balance EVR with the Veeder-Root Vapor Polisher and ISD shall be capable of demonstrating on-going compliance with the vapor integrity requirements of CARB Executive Order E.O. VR-204. The owner or operator shall conduct and pass the following tests at least once in each consecutive 12-month period following successful completion of start-up testing. Tests shall be conducted and evaluated using the below referenced test methods and standards:

1. Dynamic Back Pressure Test - TP-201.4 (7/3/02) in accordance with the condition listed in item 1 of the Vapor Collection Section of E.O. VR-204, Exhibit 2. The dynamic back pressure shall not exceed 0.35" WC @ 60 CFH and 0.62" WC @ 80 CFH
2. Liquid Removal Test in accordance with E.O. VR-204, Option 1 (Only test hoses containing more than 25 ml liquid)
3. Vapor Pressure Sensor Verification Test in accordance with E.O. VR-204
4. Veeder-Root Vapor Polisher Operability Test. in accordance with E.O. VR-204
5. Veeder-Root Vapor Polisher Emissions Test in accordance with E.O. VR-204
6. ISD Vapor Flow Meter Operability Test in accordance with E.O. VR-204

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.

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 to change permit conditions for the following source:

S-1 Gasoline Dispensing Facility Install new facility per VR-102 and VR-204

By: Duncan Campbell, Senior Air Quality Permit Technician Date: 5/9/2017