

Evaluation Report
US Pipe and Foundry
Application Number: 26510
Plant Number: A0083

Background

US Pipe and Foundry submitted an application for an authority to construct for the following equipment:

- S33, Gasoline Dispensing Facility-GDF #7675

The source had an existing underground gasoline storage tank, one dispenser, and one nozzle. The existing source was equipped with Phase I control only. The new source will consist of a Trusco Supervault aboveground storage tank. The new equipment is a package that includes the pump, dispenser, and nozzle.

The source has Phase I and Phase II control. Phase I controls the emissions during tank filling. The Phase I control is a two-point type control. The tank is filled through one fitting connected to the submerged fill pipe and the gases in the tank are sent to the gasoline tank truck through a second fitting.

Phase II controls the emissions during automobile fueling. The Phase II control is a balance system. During fueling, the nozzle dispenses gasoline to the automobile tank using the coaxial line. The gases in the tank are sent to the Trusco tank via the coaxial line attached to the nozzle.

The Trusco package has been certified by the California Air Resources Board (CARB) to achieve 95% control of gasoline vapors.

Emissions Calculations

The general emission factors for GDFs that use aboveground tanks utilizing properly-operated CARB-certified Phase I and Phase II controls is 1.52 lb VOC/1000 gals pumped and 0.00751 lb benzene/1000 gals pumped.

Per current District policy, the GDF gasoline throughput is typically limited to 940,000 gallons per year. This is a risk-based limit designed to insure that the resulting health risk impact due to benzene emissions does not exceed 1.0 in one million.

However, to insure that emission offsets are not required, the owner/operator has agreed to a lower limit of 6000 gallons per year.

Evaluation Report
U.S. Pipe and Foundry
Application Number: 26510
Plant Number: 83

The existing equipment had a limit of 60,000 gals/yr because it was not equipped with Phase II control. The VOC emission factor for this equipment is 11 lb/1000 gals pumped. The resulting maximum VOC emissions were calculated to be 660 lb/yr. The actual historical gasoline throughput for the GDF has been approximately 1400 gallons per year.

Therefore, the baseline VOC emissions for the existing GDF equipment are:

$$\begin{aligned}\text{VOC} &= (1400 \text{ gal/yr})(11 \text{ lb}/10^3 \text{ gal}) \\ &= 15.4 \text{ lb/yr}\end{aligned}$$

The VOC emissions for the new GDF equipment are:

$$\begin{aligned}\text{VOC} &= (6000 \text{ gal/yr})(1.52 \text{ lb}/10^3 \text{ gal}) \\ &= 9.12 \text{ lb/yr}\end{aligned}$$

Statement of Compliance

This source is not subject to the Toxic Risk Provisions of Regulation 2, Rule 1 because it does not exceed the trigger for benzene.

Because the U.S. Pipe and Foundry facility POC emissions exceed 50 tons per year, the offset requirement of Regulation 2-2-302 applies to the POC emission increase resulting from the installation and operation of the new GDF equipment. In addition, the offsets must be provided at a ratio of 1.15:1.0. However, contemporaneous emission offsets resulting from the shutdown of the existing GDF can be used to offset the emission increase from the new equipment.

The offsets required are $(1.15)(9.12 \text{ lb/yr}) = 10.5 \text{ lb/yr}$ and the contemporaneous offsets available are 15.4 lb/yr. This satisfies the offset requirement of Regulation 2-2-302.

This project is exempt from the CEQA provisions per Regulation 2-1-311 because it is ministerial.

The source is subject to Regulation 8, Rule 7, Gasoline Dispensing Facilities, and is expected to be in full compliance with this rule. The gasoline tank will have a submerged fill pipe. The tank will be equipped with Phase I and Phase II vapor recovery pursuant to BAAQMD Regulation 8-7-301 and 8-7-302. The facility will be required to perform two tests after construction: ST-27, Gasoline Dispensing Facility, Dynamic Back Pressure, and ST-38, Gasoline Dispensing Facility, Static Pressure Integrity Test, Aboveground Vaulted Tanks to ensure compliance with BAAQMD Regulation 8-7-301 and 8-7-302.

Evaluation Report
U.S. Pipe and Foundry
Application Number: 26510
Plant Number: 83

This project is over 1,000 ft from the nearest public school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

The source is not subject to NSPS, NESHAPS, or PSD.

Monitoring Analysis

The source is subject to recordkeeping pursuant to BAAQMD Regulation 8-7-503. The facility is also subject to ongoing Static Pressure Integrity Tests pursuant to CARB Executive Order G-70-132-B. Since the emissions will be very low due to the size of the source, this is considered to be sufficient monitoring.

Recommendation

Issue an Authority to Construct for:

S33, Gasoline Dispensing Facility-GDF #7675

Permit Conditions

Condition# 18432

For S-33 Gasoline
Dispensing Facility

1. The facility's annual gasoline throughput shall not exceed 6,000 gallons in any consecutive 12-month period. (basis: offsets)
2. The Static Pressure Performance Test (Leak Test) ST-38 shall be successfully conducted at least once in each twelve consecutive month period after the date of successful completion of the startup Static Pressure Performance Test. Test results shall be submitted to BAAQMD within 20 days of the test date. (basis: Executive Order G-70-132-B)

by _____ date _____
Brenda Cabral
Air Quality Engineer