

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS	PAGES 3	PAGE 1
	APPL NO 466446	DATE 4/29/2011
	PROCESSED BY AS08	CHECKED BY

PERMIT TO OPERATE (PO no PC)

Applicant Eastern Municipal Water District (EMWD) –Moreno Valley
Regional Water Reclamation Facility (MVRWRF)

Mailing Address 2270 Trumble Road
P.O. Box 8300
Perris, CA 92572

Equipment Location 17140 Kitching Street
Moreno Valley, CA 92551

Equipment Description
APPLICATION 466446, FACILITY ID 013088

STORAGE TANK, NO. 1, LIQUEFIED PETROLEUM GAS, 9'-0" D. X 41'-6" L., PRESSURIZED, 18,328 GALLONS (76,630 POUNDS) CAPACITY, WITH PRESSURE RELIEF VALVE.

Background/Process Description

The above application was filed on March 15, 2007 as Equipment Operating without a Permit (PO no PC) for site specific pressurized LPG tank. This application is for a LPG tank that were previously exempt from permitting requirements by Rule 219 until July 14, 2006 when the exemption was limited to a capacity of 10,000 pounds instead of 19,815 gallons. Tank No. 1 under A/N 466446 has a capacity of 18,328 gallons or 76,600 pounds.

Pressure vessels are designed to contain LPG. LPG is used as a backup fuel for internal combustion engines at this facility. Emissions from this equipment are only expected to occur when the tanks are filled. The tanks are filled once every five to ten years. There are no emissions during filling. The equipment is classified as a high pressure storage tank because the LPG is stored at more than 15 psig pressure. The LPG tanks have pressure relief valves rated at 250 psig. There are no emissions during the source of normal operation. Pressure vessel headspace is vented back to the delivery truck during filling. Vapor displaced during filling by the fluid entering the pressure vessel is returned to the delivery truck through a separate, parallel piping arrangement (vapor recovery line).

The facility is a municipal water district which accepts and treats municipal sewage at Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility (EMWD-MVRWRF). In the last three years two Notices to Comply were issued to the above facility. Notice to Comply D14829 was issued on April 8, 2008 to provide the following: 1) copies of source test (cover page & results page only) for ICE permits F68934, F63608, and F68132, 2) Ignition timing inspection report for ICE permits F36089, F36095, F66584, and F68933, 3) oxygen concentration at the outlet for ICE permits F63608 and F68933. Notice to Comply D116616 was issued on August 7, 2007 to provide the following information for Permit, G4189, A/N 446530: 1) date the mist eliminator was ordered, 2) final specifications submitted to AQMD, 3) dates operated, 4) duration of operations, 5) quantity of gas consumed, and 6) temperature of flare during operations. The above facility has received one complaint for odors in the last three years. There is a no school within 1000 feet of the emission source. There are no violations issued against the above facility.

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Emission Calculations

The pressurized tank does not have breathing losses. Working losses can occur during loading and unloading of LPG, but has not been quantified. Possible losses occur during loading/unloading and when the pressure setting of the pressure relief valve (PRV) is exceeded. With the pressure setting of the PRV is well above the tank pressure, pressure relief is less likely to happen. VOC emissions are insignificant. Please note that the chances of fugitive emissions are unlikely. Please see attached excerpts from EPA AP-42, Chapter 7 Liquid Storage Tanks, Section 7.1.1.6 and Section 7.1.3.4.

Operation schedule

50 gallons/year / 18,328 gallons (working volume) = ~ 1 fills/year
 Assume 1hr/fill. The operating schedule will be 1 hour/day, 1 day/week, and 1 weeks/year.

VOC Emissions

Total emissions = standing/breathing loss + filling losses ~ 0 lbs/hr

Evaluation

Rule 212: Rule 212(c)(1)- There is no school within 1000 feet of the facility.

Rule 212(c)(2)- Not exceeding the following:

Volatile Organic Compounds	30 lbs/day
Nitrogen Oxides	40 lbs/day
PM10	30 lbs/day
Sulfur Dioxide	60 lbs/day
Carbon Monoxide	220 lbs/day
Lead	3 lbs/day

Rule 212(c)(3)(A)(i)- MICR is below 1 in a million.

Public Notice is not required.

Rule 401: Visible Emissions
 No violations are expected limits are listed under Rule 401(b)(1).

Rule 402: Nuisance
 Nuisance is not expected.

Rule 442: Usage of Solvents
 Rule 442(i)(1)(A)- Manufacture, transport, or storage of organic solvents, or the transport or storage of materials containing organic solvents are exempt from the provisions of this rule. Compliance is expected.

Reg. XIII: Reg XIII is exempt per Rule 1313. This equipment required a permit solely because there was a change in Rule 219 (Equipment Not Requiring a Permit).

Rule 1401: Toxic Air Contaminants
 Rule 1401(d)- This equipment is exempt from Rule 1404(d) per Rule 1401(g)(D) for equipment that previously did not require a written permit pursuant to Rule 219 and was installed prior to the Rule 219 amendment, but is no longer exempt.

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Reg XXX: The modification of the digester gas flare, conversion of a stationary IC engine from non-emergency use to emergency use, an administrative change to a sewage treatment plant to remove a Rule 219 exempt boiler in the equipment description and permitting a LPG tank that was operating without a permit is considered a Title V Minor permit revision under Rule 3000(b)(15), since there is no emission increase and the modification of the equipment does not result in new or additional NSPS or NESHAP requirements and will be subject to an EPA review (Rule 3003 (j)). A public notice is not required. Compliance is expected.

Conclusions and Recommendations

The equipment is in compliance with the Rules and Regulations of the AQMD. A Permit to Operate is recommended. For Permit Conditions please see Sample Permit.