

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Plains LPG Services, L.P.
Attn: Richard Anderson
Post Office Box 4648
Houston, Texas 77210-4648

Application No.: 05090038
Applicant's Designation: PLAINS LPGS
Subject: Bulk Natural Gasoline Terminal
Date Issued:
Location: 22210 Route 84 North, Cordova

I.D. No.: 161015AAA
Date Received: September 16, 2005
Expiration Date:

Permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Three (3) 60,000-Gallon Natural Gasoline Storage Tanks (Bullets)
Two (2) Lane Truck Loading Racks Utilizing Bottom Loading
Railcar Unloading Operations
One (1) 290-Gallon Natural Gasoline Waste Storage Tank

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of volatile organic material (VOM) and hazardous air pollutants (HAP) from the terminal to less than major source thresholds (i.e., 100 tons/year for VOM, 10 tons/year for a single HAP and 25 tons/year for combined HAPs), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. The three 60,000-gallon natural gasoline storage tanks (V-101, V-102 and V-103) are not subject to the New Source Performance Standard (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subparts A and Kb because the tanks are pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- b. Pursuant to 40 CFR 60.110b(a), the natural gasoline waste storage tank (W-101) is not subject to the New Source Performance Standard (NSPS), 40 CFR 60, Subparts A and Kb because the vessel capacity is less than 75 cubic meters. Please note that the waste storage tank may be subject to 35 Ill. Adm. Code Part 724 or 725 hazardous waste requirements.

3. Pursuant to 35 Ill. Adm. Code 215.121, no person shall cause or allow the storage of any volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F or any gaseous organic material in any stationary tank, reservoir or other container of more than 40,000 gallon capacity unless such tank, reservoir or other container:
 - a. Is a pressure tank capable of withstanding the vapor pressure of such liquid or the pressure of the gas, so as to prevent vapor or gas loss to the atmosphere at all times; or,
 - b. Is designed and equipped with a vapor loss control device consisting of:
 - A. A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and,
 - B. A vapor disposal system capable of processing such volatile organic material so as to prevent its emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling.
4. Pursuant to 35 Ill. Adm. Code 215.122,
 - a. No person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading facility having through-put of greater than 40,000 gal/day per day into any railroad tank car, tank truck or trailer unless such loading facility is equipped with submerged loading pipes, submerged fill, or a device that is equally effective in controlling emissions and is approved by the Agency according to the provisions of 35 Ill. Adm. Code 201.
 - b. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Agency according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in Section 215.121(a) or is fitted with a recovery system as described in Section 215.121(b) (2).
5. Natural gasoline shall be the only material to be received or loaded out. Natural gasoline shall only be loaded out through the loading racks using submerged loading or bottom loading. Natural gasoline may be loaded out into atmospheric tank trucks or into pressurized tank trucks.

6. This facility is subject to the following provisions:
- a. No person shall cause or allow the transfer of natural gasoline into any delivery vessel unless the bulk natural gasoline terminal is equipped with submerged loading or bottom loading for delivery vessels and stationary storage tanks;
 - b. Equipment is available at the natural gasoline terminal to provide for the submerged filling of the delivery vessel or the delivery vessel is equipped with bottom loading.
 - c. The operator of the natural gasoline terminal shall:
 - i. Operate the loading equipment in a manner that prevents avoidable leaks of liquid during loading or unloading operations.
 - ii. Follow good operating practices for the bulk natural gasoline terminal, including periodic inspection, routine maintenance and prompt repair of defects to minimize emissions of VOM.
 - iii. Within 15 business days after discovery of a leak by the owner, operator, or the Agency, repair and test the system.
7. Emissions and operation of the natural gasoline terminal shall not exceed the following limits:
- a. The amount of VOM from natural gasoline loading/unloading/storage operations shall not exceed:

| <u>Pollutant</u> | EMISSIONS | |
|------------------|---------------------|--------------------|
| | <u>(Tons/Month)</u> | <u>(Tons/Year)</u> |
| VOM | 16.58 | 99.5 |
| Single HAP | | 9.9 |
| Combination HAP | | 24.9 |

Compliance with the annual limits shall be determined from a running total of 12 months of data.

- b. The Permittee shall calculate and record the monthly and 12 month rolling VOM emissions from the loading/unloading operations as follows.
 - i. VOM emission factor shall be calculated using Equation 1 from AP-42 Section 5.2 below.

$$L_L = (12.46 * SPM) / T$$

L_L = loading loss, pounds/1000 gallons (lb/1000 gal) of liquid loaded/unloaded

- S = saturation factor, 0.6 for dedicated normal service submerged loading
- P = true vapor pressure of liquid loaded/unloaded, lb/square inch abs. (psia)
- M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole)
- T = temperature of bulk liquid loaded/unloaded, °R (°F + 460)

- ii. Temperature and pressure of the bulk liquid loaded/unloaded shall be based on the actual monthly average ambient temperature plus 5 degrees Fahrenheit from the nearest official station of the National Weather Service (Moline, Illinois). The temperature information can be found at www.crh.noaa.gov at the beginning of the month for the previous month.
 - iii. Monthly VOM emissions shall be calculated as the summation of the products of the VOM emission factor produced by the AP-42 equation and the gallons of natural gasoline loaded/unloaded into tanks, tank trucks or other vessels not meeting the 35 Ill. Adm. Code 215.121(a) definition of a pressure tank during the respective month. Rolling 12-month VOM emissions shall be calculated as the sum of the monthly VOM emissions and the previous 11 months of VOM calculations.
- c. The Permittee shall calculate and record the monthly and 12 month rolling VOM emissions from the four storage tanks (V-101, V-102, V-103, W-101) using the most current version of the TANKs software including railcar unloading into the storage tanks as determined through Standard AP-42 emission factors or the most current version of the TANKs software (tons/month and tons/year).
8. This permit is issued based on negligible emissions of VOM from fugitive losses (pumps, valves, seals, etc.), and maintenance activities. For this purpose, these total emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
9. Pursuant to 35 Ill. Adm. Code 215.127,
- a. Any tests of organic material emissions, including tests conducted to determine control equipment efficiency, shall be conducted in accordance with the methods and procedures specified in 35 Ill. Adm. Code 215.102.
 - b. Upon a reasonable request by the Agency, the owner or operator of an organic material emission source required to comply with 35

Ill. Adm. Code 215 Subpart B shall conduct emissions testing, at such person's own expense, to demonstrate compliance.

- c. A person planning to conduct an organic material emission test to demonstrate compliance with 35 Ill. Adm. Code 215 Subpart B shall notify the Agency of that intent not less than 30 days before the planned initiation of the tests so the Agency may observe the test.
10. The Permittee shall maintain records of the following:
 - a. Natural gasoline throughput (gallons/month and gallons/year). Throughput shall be tracked such that the site can differentiate between the gallons of natural gasoline loaded/unloaded into atmospheric tanks, tank trucks and other vessels and the gallons loaded/unloaded into tanks, tank trucks and other vessels meeting the 35 Ill. Adm. Code 215.121(a) definition of pressure tank.
 - b. Actual monthly average temperature data (and corresponding calculated pressure data) from the nearest National Weather Service Station (Moline, Illinois) in accordance with this permit.
 - c. Emissions of VOM and HAP for the facility with supporting calculations (tons/month and tons/year). Calculations shall be performed in accordance with this permit.
 11. In the event that the operation of these emission units results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
 12. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
 13. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
 14. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Emission calculations of VOM with supporting information (vapor pressure, VOM material throughputs, temperature, etc.) from the prior calendar year. If there have been no exceedances during the prior calendar year the Annual Emissions Report shall include a statement to that effect.

If you have any questions on this permit, please contact Mike Dragovich at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MJD:psj

cc: Region 2

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the terminal operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario that results in maximum emissions. The resulting maximum emissions are below the levels, e.g., 100 tons per year of VOM, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled.

| <u>Activity</u> | <u>Volatile Organic Material Emissions (Tons/Year)</u> | <u>Single HAP (Tons/Year)</u> | <u>Combination of HAPs (Tons/Year)</u> |
|---|--|-----------------------------------|--|
| Loading/unloading operations and four storage tanks | 99.50 | --- | --- |
| Fugitive Sources and Maintenance HAPs | 0.44 | --- | --- |
| | --- | <9.9 | <24.9 |
| Total: | 99.94 | | |

This table defines the maximum allowable emissions for this source. Emissions are based upon the natural gasoline throughput, actual average monthly temperature and calculated vapor pressure, emission equation 1 from AP-42 Section 5.2, and the TANKs software.

MJD:psj