



FINAL DETERMINATION

FOR

Marathon Petroleum Company LLC, Tampa Light Products Terminal

Hillsborough County

Air Construction Permit

Application Number

0570080-032-AC

Environmental Protection Commission of

Hillsborough County

Tampa, FL

April 8, 2013

## FINAL DETERMINATION

The Environmental Protection Commission of Hillsborough County mailed a public notice package on March 13, 2013 that included an Intent to Issue Air Construction Permit No. 0570080-032-AC to Marathon Petroleum Company, LLC, Tampa Light Products Terminal. The facility is located at 425 South 20<sup>th</sup> Street, Tampa, Hillsborough County, FL 33605. The air construction permit authorizes the addition of natural gas or propane assist gas combustion to the RANE Vapor Combustor Unit (VCU).

The Public Notice of Intent to Issue was published in La Gaceta on March 22, 2013.

### COMMENTS/CHANGES

No comments were received from the applicant or the public.

### CONCLUSION

The final action of the Environmental Protection Commission of Hillsborough County is to issue the permit as drafted.

ENVIRONMENTAL PROTECTION COMMISSION OF  
HILLSBOROUGH COUNTY, as Delegated by  
STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF PERMIT

Timothy J. Aydt  
Deputy Assistant Secretary  
Marathon Petroleum Company, LLC  
539 South Main Street  
Findlay, Ohio 45840

Re: Hillsborough County - AP

Dear Mr. Aydt:

Enclosed is Permit Number 0570080-032-AC for the Tampa Light Products Terminal authorizing the addition of natural gas or propane assist gas combustion to the RANE Vapor Combustor Unit (VCU), issued pursuant to Section 403.087, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the EPC in the Legal Department at 3629 Queen Palm Drive, Tampa, FL 33619; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the clerk of the EPC.

Executed in Tampa, Florida

ENVIRONMENTAL PROTECTION COMMISSION  
OF HILLSBOROUGH COUNTY

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Richard D. Garrity, Ph.D.  
Executive Director

RDG/LAW/law

Marathon Petroleum Company, LLC  
Findlay, OH 45840

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cc: Florida Department of Environmental Protection (via email)  
Thomas Davis, P.E. - Environmental Consulting & Technology, Inc. (via email)

CERTIFICATE OF SERVICE

The undersigned duly designated clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed before the close of business on \_\_\_\_\_ to the listed persons.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated clerk, receipt of which is hereby acknowledged.

\_\_\_\_\_  
Clerk

\_\_\_\_\_  
Date

PERMITTEE:

Marathon Petroleum Company, LLC  
Tampa Light Products Terminal  
425 South 20<sup>th</sup> Street  
Tampa, FL 33605

PERMIT/CERTIFICATION

Permit No.: 0570080-032-AC  
County: Hillsborough  
Expiration Date: April 1, 2014  
Project: VCU Assist Gas

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 62-204, 62-210, 62-212, 62-296, 62-297, and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the EPC and made a part hereof and specifically described as follows:

This permit authorizes the use of natural gas or propane assist gas combustion for the RANE Vapor Combustor Unit (VCU), which is the backup control device for the two loading racks. The assist gas will be used to maintain the required minimum VCU operating temperature.

Marathon Petroleum Company, LLC stores and handles petroleum products and petroleum product additives. Gasoline, ethanol, distillates, and asphalt products are received via barge or tanker and stored in above ground storage tanks. Denatured ethanol is received by tanker truck and off-loaded at a dedicated denatured ethanol off-loading station. All of the products are subsequently loaded into trucks for shipment offsite or can also be delivered into the pipeline owned by Central Florida Pipeline.

The operations at this facility include two loading racks (each loading rack consists of five loading bays, and each loading bay has 6 loading arms), whose emissions are controlled by two Vapor Recovery Units (VRU), both Jordan Technologies Units, Model Nos. JOR JT4-11089-2X7240, and a R. A. Nichols Vapor Combustor Unit (RANE VCU), Model No. 8E27DB, Serial No. E24/B14; 33 permitted storage tanks; equipment leaks; six asphalt and asphalt additive storage tanks; an asphalt heater for the asphalt storage tanks; one asphalt loading rack with three loading bays; and a barge loading of "off-spec" product into marine vessels operation. All of the asphalt storage tanks, the asphalt loading rack, and a diesel lubricity additive storage tank are considered to be insignificant.

Location: 425 South 20<sup>th</sup> Street, Tampa, FL 33605

UTM: 17-358.54 E 3091.79 N NEDS NO: 0080

Emission Unit No.: 001 – Two Truck Loading Racks

References Permit No.: 0570080-013-AC, 0570080-015-AC, 0570080-024-AC, 0570080-027-AC, and 0570080-029-AC

Replaces Permit No.: NA

PERMITTEE:  
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**SPECIFIC CONDITIONS:**

**The following conditions apply facility-wide:**

**FW1.** All applicable rules of the Environmental Protection Commission of Hillsborough County including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction. [Rule 62-4.070(7), F.A.C.]

**FW2.** The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited, pursuant to the Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.

**FW3.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C., and EPCHC Rule 1-3.22]

**FW4.** General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. and 4., F.A.C.]

**FW5.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department or its delegated agent, the Environmental Protection Commission of Hillsborough County. [Rule 62-296.320(1), F.A.C. and Permit Nos. 0570080-013/027/029-AC]

- (a) Maintaining tightly fitting covers, lids, etc., on all containers when they are not being handled, tapped, etc.
- (b) Where possible and practical, procuring/fabricating a tightly fitting cover for any open trough, basin, etc., of VOC so that it can be covered when not in use.
- (c) Immediately attending to all spills/waste as appropriate.
- (d) Using the vapor collection system to control the vapors from every tank truck/cargo tank during the loading of any product.

**FW6.** Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. and 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility

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include the following requirements: [Rule 62-296.320(4)(c), F.A.C. and Permit Nos. 0570080-013/027/029-AC]

- (a) Maintenance of parking areas and yards.
- (b) Removal of particulate matter from paved areas, building, and work areas under the control of the owner/operator.
- (c) Reduce vehicular speed. Post limits, if necessary.

**FW7.** When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which defines day one. [Rule 62-213.440(1), F.A.C.]

**FW8.** The permittee shall submit all compliance related notifications and reports required of this permit to: [Rule 62-4.070(3), F.A.C.]

Environmental Protection Commission of Hillsborough County  
Air Management Division  
3629 Queen Palm Drive  
Tampa, FL 33619-1309  
Telephone: 813-627-2600; Fax: 813-627-2660

**FW9.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: [Rule 62-4.070(3), F.A.C.]

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

**FW10.** Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

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**FW11.** When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable requirement or permit condition is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the Environmental Protection Commission of Hillsborough County. [Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

**FW12.** The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C.]

**FW13.** Submit to the Environmental Protection Commission of Hillsborough County each calendar year on or before April 1, completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(3), F.A.C.]

**FW14.** The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200, F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

- (a) Alteration or replacement of any equipment\* or major component of such equipment.
- (b) Installation or addition of any equipment\* which is a source of air pollution.

\*Not applicable to routine maintenance, repair, or replacement of component parts of an air emissions unit.

**FW15.** As requested by the permittee, in order to limit the potential to emit for both criteria and Hazardous Air Pollutants (HAP), the following potential emission limitations shall apply for any twelve consecutive month period: [Rules 62-210.200(160) and 62-4.070(3), F.A.C.]

- (a) Facility-wide Volatile Organic Compound (VOC) emissions, including emissions from de-gassing of the storage tanks, shall not exceed 192.5 tons.
- (b) VOC emissions from EU No. 001 shall not exceed 99.8 tons.
- (c) The maximum single HAP as MTBE and total HAPs emissions for the facility shall not exceed 20.8 and 30.3 tons, respectively.

[Permitting Note: Storage tank VOC emissions estimated using TANKS 4.09D]

**FW16.** A minimum of two copies of a permit application for a Title V permit revision shall be submitted to the Environmental Protection Commission of Hillsborough County at least ninety days prior to expiration of this permit, but no later than 180 days after the RANE VCU commences operation

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as modified. [Rules 62-4.050(2) and 62-213.420(1)(a)1., F.A.C.]

**The following specific conditions apply to EU No. 001 - 2 Truck Loading Racks:**

**A.1. Hours of Operation.** The following limitations shall apply to the RANE VCU: [Rules 62-4.160(2), F.A.C., 62-210.200, F.A.C.]

- (a) Hours of operation of the RANE VCU when operating with the use of assist gas shall not exceed 1,800 hours/year
- (b) The RANE VCU is allowed to operate continuously, i.e., 8,760 hours/year, when not using assist gas.

**A.2.** As requested by the permittee, in order to limit the potential to emit (PTE), the following limitations shall apply to EU No. 001 for any twelve consecutive month period: [Rule 62-4.070(3) and Rule 62-210.200(PTE), F.A.C. and Permit No. 0570080-024-AC]

- (a) Maximum gasoline/denatured ethanol throughput: 985,000,000 gallons
- (b) Maximum diesel throughput: 700,000,000 gallons
- (c) Only natural gas or propane shall be used as assist gas for the RANE VCU

**Emission Limitations and Standards**

**A.3.** Emissions to the atmosphere from the vapor collection and processing systems (the VRUs and the RANE VCU) due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. [40 CFR 63.422(b), Rule 62-4.070(3), F.A.C., and Permit No. 0570080-024-AC]

**A.4.** As requested by the permittee, in accordance with the performance test conducted in March 2008, the RANE VCU temperature shall be maintained at a minimum 6-hour average temperature of 445 °F during operation. [Rule 62-4.070(3), F.A.C., 40 CFR 63.425(b)]

**A.5.** The permittee shall comply with the following requirements: [40 CFR 63.422, 40 CFR 60.502, and Permit No. 0570080-024-AC]

- (a) Each loading rack shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks/cargo tanks during product loading.
- (b) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.

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- (c) Loadings of liquid product into gasoline tank trucks/cargo tanks shall be limited to vapor-tight gasoline tank trucks/cargo tanks using the following procedures:
- (1) The permittee shall obtain the vapor tightness documentation described in Specific Condition A.17. for each gasoline tank truck/cargo tank which is to be loaded at the loading racks.
  - (2) The permittee shall require the tank identification number to be recorded as each gasoline tank truck/cargo tank is loaded at the loading racks.
  - (3) The permittee shall cross-check each tank identification number obtained in paragraph (c)(2) of this Specific Condition with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.
  - (4) The permittee shall notify the owner or operator of each nonvapor-tight gasoline tank truck/cargo tank loaded at the loading racks within 3 weeks after the loading has occurred.
  - (5) The permittee shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:
    - (i) The gasoline cargo tank meets the applicable test requirements in Specific Condition A.12.
    - (ii) For each gasoline cargo tank failing the test in Specific Condition A.13. or A.14. at the facility, the cargo tank either: (A) Before repair work is performed on the cargo tank, meets the test requirements in Specific Condition A.14. or A.15., or (B) After repair work is performed on the cargo tank before or during the tests in Specific Condition A.14. or A.15., subsequently passes the annual certification test described in Specific Condition A.12.
- (d) The permittee shall act to assure that loadings of gasoline tank trucks/cargo tanks at the loading racks are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.
- (e) The permittee shall act to assure that the terminal's and the tank truck's/cargo tank's vapor collection systems are connected during each loading of a gasoline tank truck/cargo tank at the loading racks. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.
- (f) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in Specific Condition A.9.(d).

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- (g) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water).

**A.6.** The permittee shall not load gasoline into any tank, trucks or trailers unless a means is provided to prevent liquid waste from the loading device to exceed the quantity specified for the self sealing coupler or adapter according to API regulation RP 1004 (or equivalent) upon the loading device being disconnected or when it is not in use (the above referenced are available from the American Petroleum Institute, 2101 "L" Street N.W., Washington, D.C. 20037). [Rule 62-296.510(3)(b), F.A.C. and Permit No. 0570080-024-AC]

**A.7.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. No trucks shall be hooked up for filling once the equipment or process failure is recognized. Truck loading shall restart only after the problem is completely resolved. [Rule 62-210.700, F.A.C. and Permit Nos. 0570080-015-AC and 0570080-024-AC]

**A.8.** For the loading racks (EU 001), the Environmental Protection Commission of Hillsborough County deems necessary and orders the permittee to use submerged filling techniques (bottom loading). The Environmental Protection Commission of Hillsborough County finds the submerged filling technique as known and existing vapor emissions controls. [Rule 62-296.320(1)(a), F.A.C. and Permit No. 0570080-024-AC]

**A.9. Performance Test.** Within 60 days of first use of the assist gas and annually thereafter, the permittee shall conduct a performance testing on the RANE VCU as follows while the VCU is using assist gas and submit a copy of the results within 45 days of completion of the test to the Environmental Protection Commission of Hillsborough County. The test report shall include the flow rate of the assist gas during the test period, in addition to the VCU operating temperature. [40 CFR 63.425(a), 40 CFR 60.503, and Rule 62-297.310(7)(a)4., F.A.C.]

- (a) In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in this Specific Condition, except as provided in 40 CFR 60.8(b). The three-run requirement of 40 CFR 60.8(f) does not apply.
- (b) Immediately before the performance test required to determine compliance with Specific Condition A.3. and A.5.(f), the permittee shall use Method 21 to monitor for leakage of vapor from all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The permittee shall repair all leaks with readings of 500 ppm (as methane) or greater before conducting the performance test.

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(c) The permittee shall determine compliance with the standards in Specific Condition A.3. as follows:

(1) The performance test shall be 6 hours long during which at least 302,800 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 302,800 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 302,800-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs. [40 CFR 60.503(c)(1) and Rule 62-297.440(2)(b), F.A.C.]

(2) The emission rate (E) of total organic compounds shall be computed using the following equation:

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L10^6)$$

where:

E = emission rate of total organic compounds, mg/liter of gasoline loaded.

$V_{esi}$  = volume of air-vapor mixture exhausted at each interval "i", scm.

$C_{ei}$  = concentration of total organic compounds at each interval "i", ppm.

L = total volume of gasoline loaded, liters.

n = number of testing intervals.

i = emission testing interval of 5 minutes.

K = density of calibration gas,  $1.83 \times 10^6$  for propane and  $2.41 \times 10^6$  for butane, mg/scm.

(3) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted ( $V_{esi}$ ) and the corresponding average total organic compounds concentration ( $C_{ei}$ ) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.

(4) Method 2A shall be used to determine the volume ( $V_{esi}$ ) air-vapor mixture exhausted at each interval.

(5) Method 25A or 25B shall be used for determining the total organic compounds concentration ( $C_{ei}$ ) at each interval. The calibration gas shall be either propane or butane. The permittee may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator.

(6) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested,

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terminal records or readings from gasoline dispensing meters at each loading rack shall be used.

- (d) The permittee shall determine compliance with the standard in Specific Condition A.5.(f) as follows:
- (1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with  $\pm 2.5$  mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.
  - (2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

**A.10.** For each performance test conducted under Specific Condition A.9., the permittee shall determine a monitored operating parameter value for the RANE VCU using the following procedure: [40 CFR 63.425(b)]

- (a) During the performance test, continuously record the operating parameter under Specific Condition A.16.(a) for the RANE VCU. The operating parameters to be established for monitoring should be, but not limited to, operating temperature of the VCU.
- (b) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and
- (c) Within 45 days of completion of the performance test, provide for the Environmental Protection Commission of Hillsborough County's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in Specific Condition A.3.

**A.11.** For performance tests performed after the initial test, the permittee shall document the reasons for any change in the operating parameter value since the previous performance test. [40 CFR 63.425(c) and Permit No. 0570080-024-AC]

**A.12.** Annual certification test. The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures: [40 CFR 63.425(e) and Air Construction Permit No. 0570080-024-AC]

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- (a) Method 27, Appendix A, 40 CFR 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P<sub>i</sub>) for the pressure test shall be 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. The initial vacuum (V<sub>i</sub>) for the vacuum test shall be 150 mm H<sub>2</sub>O (6 in. H<sub>2</sub>O), gauge. The maximum allowable pressure and vacuum changes (-p, -v) are as shown in the second column of Table 1.
- (b) Pressure test of the cargo tank's internal vapor valve as follows:
  - (1) After completing the tests under paragraph (a) of this Specific Condition, use the procedures in Method 27 to repressurize the tank to 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.
  - (2) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H<sub>2</sub>O (5 in. H<sub>2</sub>O).

TABLE 1 - ALLOWABLE CARGO TANK TEST PRESSURE OR VACUUM CHANGE

| Cargo Tank or Compartment Capacity, liters (gal) | Annual Certification- Allowable Pressure or Vacuum Change (-p, -v) in 5 Minutes, mm H <sub>2</sub> O (in. H <sub>2</sub> O) | Allowable Pressure Change (-p) in 5 Minutes at any time, mm H <sub>2</sub> O (in. H <sub>2</sub> O) |
|--|---|---|
| 9,464 or more (2,500 or more)                    | 25 (1.0)  | 64 (2.5)  |
| 9,463 to 5,678 (2,499 to 1,500)                  | 38 (1.5)  | 76 (3.0)  |
| 5,679 to 3,785 (1,499 to 1,000)                  | 51 (2.0)  | 89 (3.5)  |
| 3,782 or less (999 or less)                      | 64 (2.5)  | 102 (4.0)   |

**A.13. Leak detection test.** The leak detection test shall be performed using Method 21, Appendix A, 40 CFR 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph. [40 CFR 63.425(f) and Permit No. 0570080-024-AC]

- (a) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.
- (b) In addition to the procedures in Method 21, include the following procedures:

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- (1) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.
- (2) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.
- (3) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.

**A.14. Nitrogen pressure decay field test.** For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment. [40 CFR 63.425(g) and Air Construction Permit No. 0570080-024-AC]

- (a) Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H<sub>2</sub>O (18.0 in. H<sub>2</sub>O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.
  - (1) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.

$$T = V_h \times 0.004$$

where:

T = maximum allowable time to pressurize the cargo tank, min;

V<sub>h</sub> = cargo tank headspace volume during testing, gal.

- (b) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H<sub>2</sub>O (18.0 in. H<sub>2</sub>O), gauge for the next 30 ± 5 seconds.
- (c) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (P<sub>F</sub>) as calculated from the following equation:

$$P_f = 18 \left( (18 - N) / 18 \right)^{(V_s / 5V_h)}$$

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where:

- $P_F$  = minimum allowable final headspace pressure, in. H<sub>2</sub>O, gauge;
- $V_s$  = total cargo tank shell capacity, gal;
- $V_h$  = cargo tank headspace volume after loading, gal;
- 18.0 = initial pressure at start of test, in. H<sub>2</sub>O, gauge;
- N = 5-minute continuous performance standard at any time from the third column of Table 1, in. H<sub>2</sub>O.

- (d) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. Close the internal vapor valve(s), wait for 30 ± 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the "final pressure."
- (e) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 2, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (c) of this Specific Condition, then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

TABLE 2 - PRESSURE CHANGE FOR INTERNAL VAPOR VALVE TEST

| Time Interval   | Interval Pressure Change, mm H <sub>2</sub> O (in. H <sub>2</sub> O) |
|-----------------|--|
| After 1 minute  | 28 (1.1)   |
| After 2 minutes | 56 (2.2)   |
| After 3 minutes | 84 (3.3)   |
| After 4 minutes | 112 (4.4)  |
| After 5 minutes | 140 (5.5)  |

**A.15. Continuous performance pressure decay test.** The continuous performance pressure decay test shall be performed using Method 27, Appendix A, 40 CFR 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure ( $P_i$ ) shall be 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. The maximum allowable 5-minute pressure change (-p) which shall be met at any time is shown in the third column of Table 1. [40 CFR 63.425(h) and Air Construction Permit No. 0570080-024-AC]

**Continuous Monitoring Requirements**

**A.16.** The permittee shall comply with the following requirements for the loading racks: [40 CFR 63.427(a) and (b) and Permit No. 0570080-024-AC]

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**SPECIFIC CONDITIONS:**

- (a) For the RANE Vapor Combustor Unit, the permittee shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous parameter monitoring system (CPMS) capable of measuring temperature. The CPMS must be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.
- (b) The permittee shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraph (a) of this Specific Condition and established using the procedures in Specific Condition A.10. Going below the operating parameter value of paragraph (a) for the RANE VCU, as specified above, shall constitute a violation of the emission standard in Specific Condition A.3.

**Recordkeeping and Reporting Requirements**

**A.17.** The permittee shall keep records of the test results for each gasoline cargo tank loading at the facility as follows: [40 CFR 63.428(b) and Permit No. 0570080-024-AC]

- (a) Annual certification testing performed under Specific Condition A.12.; and
- (b) Continuous performance testing performed at any time at that facility under Specific Conditions A.14., A.15., and A.16.
- (c) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:
  - (1) Name of test:
    - Annual Certification Test--Method 27 [40 CFR 63.425(e)(1)],
    - Annual Certification Test--Internal Vapor Valve [40 CFR 63.425(e)(2)],
    - Leak Detection Test [40 CFR 63.425(f)],
    - Nitrogen Pressure Decay Field Test [40 CFR 63.425(g)], or
    - Continuous Performance Pressure Decay Test [40 CFR 63.425(h)].
  - (2) Cargo tank owner's name and address.
  - (3) Cargo tank identification number.
  - (4) Test location and date.
  - (5) Tester name and signature.
  - (6) Witnessing inspector, if any: Name, signature, and affiliation.
  - (7) Vapor tightness repair: nature of repair work and when performed in relation to vapor tightness testing.
  - (8) Test results: pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition.

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**SPECIFIC CONDITIONS:**

**A.18.** The permittee shall: [40 CFR 63.428(c), Rule 62-4.070(3), F.A.C. and Permit No. 0570080-024-AC]

- (a) Keep an up-to-date, readily accessible record of the continuous monitoring data required under Specific Condition A.16.(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.
- (b) Record and report simultaneously with the notification of compliance status required under 40 CFR 63.9(h) (see Attachment GP-1):
  - (1) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under Specific Condition A.10.

**A.19.** The permittee shall keep documentation of all notifications required under Specific Condition A.5.(c)(4) on file at the terminal for at least 5 years. [40 CFR 60.505(d) and Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.20.** The permittee shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 5 years. [40 CFR 60.505(f), Rule 62-213.440(1)(b)2.b., F.A.C. and Permit No. 0570080-024-AC]

**A.21. Semiannual Report.** The permittee shall include in a semiannual report to the Environmental Protection Commission of Hillsborough County the following information, as applicable: Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR 63.428(g)(1)]

**A.22. Excess Emissions Report.** The permittee shall submit an excess emissions report to the Environmental Protection Commission of Hillsborough County in accordance with 40 CFR 63.10(e) (see Attachment GP-1), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under 40 CFR 63, Subpart R, and the following information shall be included in the excess emissions report as applicable: [40 CFR 63.428(h)(1)-(3)]

- (a) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under Specific Condition A.10. The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

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- (b) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the permittee failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.
- (c) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with Specific Condition A.6.(c)(5).

**A.23.** Compliance with the emission limitations of Specific Conditions. FW15., A.1., and A.2. shall be demonstrated through the use of a monthly recordkeeping system. The recordkeeping system shall contain the following information and be made available for inspection by the Environmental Protection Commission of Hillsborough County, state, or federal agency for the most recent 5 year period: [Rule 62-213.440(1)(b)2.b., F.A.C. and Permit No. 0570080-024-AC]

- (a) Month, Year
- (b) Product(s) Loaded
- (c) Product Throughput (gallons)
- (d) Hours of operation of the RANE VCU when assist gas is used
- (e) Most recent twelve month rolling total of Product Throughput (gallons)
- (f) 12-month rolling total of the hours the RANE VCU operated with the use of assist gas
- (g) Monthly and 12-month rolling totals of VOC and HAP emissions

ENVIRONMENTAL PROTECTION COMMISSION  
OF HILLSBOROUGH COUNTY

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Richard D. Garrity, Ph.D.  
Executive Director

