

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

M236338956

FACILITY: Marathon Pipe Line LLC (Woodhaven)		SRN / ID: M2363
LOCATION: 24400 ALLEN RD, WOODHAVEN		DISTRICT: Detroit
CITY: WOODHAVEN		COUNTY: WAYNE
CONTACT: Todd Scarborough, Sr. HES Professional / Air Coordinator		ACTIVITY DATE: 03/17/2017
STAFF: Jorge Acevedo	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

COMPANY NAME : Marathon Pipe Line LLC
 FACILITY ADDRESS : 24400 Allen Road, Woodhaven, MI 48183
 STATE REGISTRAT. NUMBER : M2363
 SIC CODE :
 EPA SOURCE CLASS : A
 EPA POLLUTANT CLASS : O
 LEVEL OF INSPECTION : PCE
 DATE OF INSPECTION : 3/17/17
 TIME OF INSPECTION : 1:00 PM
 DATE OF REPORT : 4/20/17
 REASON FOR INSPECTION : Scheduled
 INSPECTED BY : Jorge Acevedo
 PERSONNEL PRESENT : Todd Scarborough and Dennis Paul
 FACILITY PHONE NUMBER : 313-343-3881
 FACILITY FAX NUMBER : 313-343-7656

FACILITY BACKGROUND

Liquefied petroleum gas (LPG- propane and butane) is received primarily by pipeline and stored in one of eight dedicated underground storage caverns (solution mined salt domes) ranging in volume between 125000 and 400000 barrels. Stored LPG can be transferred offsite via pipeline or tanker trucks. There are two loading lanes for transfer of the LPG (primarily propane) to tanker trucks, one station for trans-mix loading into trucks, one LPG unloading station, two brine storage tanks, two brine ponds, and five horizontal LPG above ground bullet tanks for temporary storage of trans-mix due to multiple products being transferred through the pipeline. The tanker trucks sizes vary from 9,000 gallons to 16,000 gallons. In an average year, the facility receives 40 propane loading trucks per day, with the bulk of them during the winter and fall months.

Ancillary equipment includes an ethyl-mercaptan injection system for "stenching" or odorizing propane loaded on trucks and a dryer to remove moisture from the propane prior to loading.

During periods of LPG transfer to pipelines or tanker trucks, LPG is displaced from the underground caverns by pumping brine stored in on-site ponds into the caverns. During periods of LPG receipt via pipeline, LPG is discharged into the underground caverns and brine is displaced and temporarily stored in two vertical open-top storage tanks (Tanks 34-T4 and 34-T6) prior to the brine being returned to the brine ponds. The brine tanks are used to capture and control hydrocarbons entrained in the brine or in the case of an unanticipated mechanical failure in the wellhead or piping system.

In addition, various relief valves within the facility are routed to the brine tanks to safely control overpressure situations. The brine tanks are equipped with glow coil igniters that float on the brine and serve as a continuous source of ignition should LPG be released in the tanks.

A continually operated gas-assisted stationary stack type flare system was installed at the facility and was put into service on the last quarter of 2012. The new flare includes a pilot flame and knockout drum located directly upstream of the flare stack. Most of the facility's relief devices are routed to the new flare along with several streams that were previously vented directly to the atmosphere such as the vapors that are released when a loading line is depressurized after being disconnected from a tanker truck. In the event the new flare system is unavailable due to maintenance, collected emissions will be routed to the brine tank glow coil ignition system, which will continue to be used to control emissions from the brine system.

INSPECTION NARRATIVE:

On March 17, 2017, I conducted a scheduled inspection of Marathon Pipeline, LLC. I arrived at the facility at 1:00 PM. I met with Todd Scarborough and Dennis Paul of Marathon Pipeline. This was the first time that I had been to the facility. Mr. Scarborough gave an overview of the facility operations. We discussed the ROP application that was submitted in December 2016. Mr. Scarborough explained the applicability of the facility to the ROP was the potential emissions related to fugitive emissions. We discussed why they were including fugitive emissions when considering their applicability to the ROP program. I explained that I reviewed the file and could not definitely find the exact reason fugitives were being counted. I explained that I would look into it further following the inspection. Mr. Scarborough explained that it may have something to do with the fact that EPA lists 28 source categories where fugitives are counted in determining major source applicability and that petroleum storage may have been applied to Liquefied Petroleum Storage (LPG). Mr. Scarborough also explained that they conducted an inspection of the facility using an infrared camera and did not detect leaks. We discussed ways that the facility could void out their ROP. We talked about a opt-out permit which would create operational restrictions and be enforceable as practical matter. When the permit is issued they can request the ROP to be voided. Actual emissions at the facility are relatively minor and facility would not have any issues maintaining emissions below 90 percent of the major source threshold. After our discussion, we went onsite to the facility. I observed the loading racks. There was no loading at the time of the inspection. I observed several areas of piping and process area through the FLIR camera. Using the camera, I did not observe any areas with leaks. I also did not observe any signs of leaks through other methods, eg. sight, sound, smell. Mr. Scarborough explained that for each loading event, approximately a pound of gas is vented to the flare. Occasionally, maintenance is done on the pipeline and LPG is evacuated from the pipeline and flared. After observing the loading rack, we observed the flare. The flame was lit and appeared to be combusting efficiently. Using the infrared camera, I observed the flare and I did not observe any uncombusted vapors. After observing the flare, we went back to the conference room in the office building. We discussed the records and Mr. Scarborough responded that he would send them to me in the next week. We discussed next steps in terms of voiding out the ROP. It appears that if fugitive emissions are not counted towards the major source threshold, the facility could restrict their emissions with a practically enforceable limit via an opt out permit. Once the opt out permit is issued, the facility can request AQD to void out the ROP permit. I concluded my inspection at 3:30 PM.

There has not been any citizen complaints registered nor violations issued against Marathon Pipe Line, LLC.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING LOVS

None

OPERATING SCHEDULE/PRODUCTION RATE:

This facility operates 24 hours a day, 365 days a year.

PROCESS DESCRIPTION

The Marathon Pipe Line, LLC, LPG Transfer and Storage facility is located at 24400 Allen Road in Woodhaven, Michigan between West Road and Van Horn Road. The area is primarily industrial-commercial and the nearest residence is approximately 300 yards south of the facility's property line.

Liquefied petroleum gas (LPG) is received primarily by pipeline and stored in one of eight dedicated underground storage caverns (solution mined salt domes). Stored LPG can be transferred offsite via pipeline or tanker trucks. There are two loading lanes for transfer of the LPG, (primarily propane) to tanker trucks, one station for transmix loading into trucks, one LPG unloading station, two brine storage tanks and two brine ponds and five horizontal LPG above ground storage tanks for temporary storage of transmix due to multiple products being transferred through the pipeline.

Ancillary equipment includes an ethyl mercaptan injection system for "stenching" or odorizing propane loaded on trucks and a dryer to remove moisture from the propane prior to loading.

During periods of LPG transfer to pipelines or tanker trucks, LPG is displaced from the underground caverns by pumping brine stored in on-site ponds into the caverns. During periods of LPG receipt via pipeline, LPG is discharged into the underground caverns and brine is displaced and temporarily stored in two vertical open-top storage tanks (Tanks 34-T4 and 34-T6) prior to the brine being return to the brine ponds. The brine tanks are used to capture and control hydrocarbons entrained in the brine or in the case of an unanticipated mechanical failure in the wellhead or piping system.

In addition, various relief valves within the facility are routed to the an above ground flare to safely control overpressure situations. Secondary controll includes brine tanks that are equipped with glow coil igniters that float on the brine and serve as a continuous source of ignition should LPG be released in the tanks.

APPLICABLE RULES/PERMIT CONDITIONS:

Marathon Pipe Line, LLC, operates under Renewable Operating Permit NO: MI-ROP-M2363-2012a. Marathon Pipe Line, LLC is considering fugitives in determining major source applicability for the ROP permit program. Based on a February 18, 1998 EPA applicability determination letter(attached), the term "petroleum" as defined in 40 CFR 60, Subparts J, K, Ka, and Kb, EPA determined that the named category was limited to crude oil and not its refined products. LPG would not be covered under the definition of "petroleum". Therefore, fugitive emissions do not have to be aggregated toward title V applicability.

Using that determination, Marathon Pipe Line submitted an application to restrict their emissions to below the major source threshold. Actual emissions should remain below major source thresholds, but the flare and storage of LPG do have potential emissions over 100 TPY if flare is not combusting LPG.

Compliance with MI ROP M2363-2012a was evaluated:

DESCRIPTION

Flexible Group ID: NA
POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Compliance
1. Organic Vapors Emissions	0.7 pounds per 1000 gallons of organic compounds loaded	Instantaneous	Compliance-In calendar year 2016, the facility loaded 58027000 gallons of material. Based on engineering design, 1.04 pounds is vacated to flare. Based on review of MAERS, 765 lbs was emitted from loading. This results in .0131 lbs organic compounds per 1000 gallons loaded.

II. MATERIAL LIMIT(S)

1. NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Applicant shall develop written procedures for the operation of the design/equipment parameters listed in section IV below and shall post those procedures in an accessible and conspicuous location near the loading device. (R 336.1609(4))

1. Any delivery vessel shall be equipped with a device to accomplish complete drainage before the loading device is disconnected, or a device to prevent liquid drainage from the loading device when not in use.
(R 336.1609(3)(d))-Compliance- Marathon has procedures to ensure all trucks have to meet this to load at the facility.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall maintain records of parameters involved in the organic vapor emission rate calculation
(R 336.1213(3))-Compliance- Demonstration of emission rate calculations were received.

2. On a quarterly basis, the permittee shall verify all of the requirements listed in Section IV of this table. The permittee shall maintain a record of the

verification of the requirements and report any exceptions as deviations in the semi-annual and annual reports. (R 336.1213(3)(b)(ii))-Compliance- No deviations noted in semi and annual compliance certification.

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
Compliance- No deviations were reported.
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
Compliance- Semi-Annual certifications are submitted timely.
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c)) **Compliance- Annual compliance certifications are submitted timely.**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENT(S)

1. NA

EU02-LPG-STORAGE

EMISSION UNIT CONDITIONS

DESCRIPTION

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

1. NA

II. MATERIAL LIMIT(S)

1. NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. All openings in the storage caverns shall be equipped with seals such that the seals are in a closed position at all times, except when in actual use. (R 336.1605(2))
Compliance- All openings to the storage caverns were equipped with seals on valves in a closed position at all times, except when in actual use.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The storage caverns shall be capable of maintaining working pressures sufficient to prevent organic vapor or gas loss to the atmosphere at all times, except under emergency conditions. (R 336.1605(1)(a))
Compliance- All openings are capable of maintaining working pressures sufficient to prevent hydrocarbon loss to the atmosphere at all times, except under emergency conditions.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(II))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(II))

1. Permittee shall perform a semiannual routine inspection to insure compliance with all Rule 605 requirements listed in Sections III and IV of this table. Permittee shall also maintain a record of the inspection results.

(R 336.1213(3)(b)(II))

Compliance- Facility performs inspections quarterly.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(II))

Compliance- No deviations were reported.

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(I))

Compliance- Semi-Annual certifications are submitted timely.

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))

Compliance- Annual compliance certifications are submitted timely.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENT(S)

1. NA

**EU-EMERGENCY RICE < 500HP
EMISSION UNIT CONDITIONS**

DESCRIPTION

Existing CI engines at an area source, Emergency and Black Start
Compliance date – May 3, 2013 for CI Engines

Emission Units: EU-EMERGRICEFP

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

I. NA

II. MATERIAL LIMIT(S)

1. NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain any affected CI RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605(b))²**
Compliance- Emergency Generator is maintained and facility keeps records.

2. The permittee shall comply with the following requirements, except during periods of startup: **(40 CFR 63.6603(a))²**

For CI Engines: (40 CFR 63.6603(a), Table 2d Item 4)

- a) Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.4.
- b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.
- c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Compliance- Facility performs annual inspection on generator.

3. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air-pollution control practice for minimizing emissions. **(40 CFR 62.6625(e), 40 CFR 63.6640(a), Table 6 item 9)²**
N/A- No after-treatment control device on generator.

4. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6603(a) and as listed in SC III.2. The oil analysis program must be performed at the same frequency as oil changes are required. The analysis program must analyze the parameters and keep records as required in 63.6625(i). **(40 CFR 63.6625(i))²**

Compliance- Oil changes are performed according to schedule.

5. The permittee shall not allow operation of the CI engine(s) for maintenance checks and readiness testing to exceed 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40**

CFR 63.6640(f)(ii))²

Compliance- Hours of operation are tracked.

6. The permittee shall not allow the CI engine(s) to operate more than 50 hours per year for non-emergency situations, as allowed in 40 CFR 63.6640(f)(iii). **(40**

CFR 63.6640(f)(iii))²

Compliance- Hours of operation are tracked.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the CI engines with a non-resettable hour meter.² **(40 CFR 63.6625(f))**

Compliance- Engines are equipped with non-resettable hour meter.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. If using the oil analysis program for CI Engine(s), the permittee shall test for Total Base Number, viscosity and percent water content.² (40 CFR 63.6625(l))

NA- Oil analysis is not done as an alternative.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(II))

1. For each CI engine, the permittee shall keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.² (40 CFR 63.6655(a)(2), 63.6660)

NA- No malfunctions have occurred.

2. The permittee shall keep records of all required maintenance performed on the air pollution control and monitoring equipment.² (40 CFR 63.6655(a)(4), 63.6660)

NA- Records are kept for maintenance on engine.

3. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.² (40 CFR 63.6655(a)(5), 63.6660)

NA- No malfunctions have occurred.

4. The permittee shall keep records as required in SC III.3 to show continuous compliance with each emission or operating limit that applies.² (40 CFR 63.6655(d), 63.6660)

5. NA- No malfunctions have occurred.

6. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's maintenance plan.² (40 CFR 63.6655(e), 63.6660)

Compliance- Maintenance records are kept.

7. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.² (40 CFR 63.6655(f), 63.6660)

Compliance- Non-resettable hour meter is installed.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(II))

Compliance- No deviations were reported.

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(I))

Compliance- Semi-Annual certifications are submitted timely.

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))

Compliance- Annual compliance certifications are submitted timely.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to FG-EMERGENCY RICE < 500 HP. The permittee may choose an alternative compliance method not listed in FG-EMERGENCY RICE < 500 HP by complying with all applicable provisions required by Subpart ZZZZ for the compliance option chosen. (40 CFR Part 63, Subparts A and ZZZZ)

Compliance- Facility appears to be complying with applicable regulations.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

N/A

MAERS REPORT REVIEW:

Pollutant	2016 Emissions(TPY)
CO	2.1
NOx	0.4
VOC	67.7

FINAL COMPLIANCE DETERMINATION:

The facility is in compliance with applicable regulations at the time of the inspection.

NAME

ACB

DATE

6-9-17

SUPERVISOR

W.M.