

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

B907345425

FACILITY: MPLX Terminals LLC - Niles Terminal		SRN / ID: B9073
LOCATION: 2216 S. Third St., NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: Brendan Anderson , Terminal Manager		ACTIVITY DATE: 08/01/2018
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On August 1, 2018 AQD staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the Marathon Petroleum facility located in Niles, Berrien County. The facility consists of two adjacent petroleum product terminals (North and South) located at 2216 and 2140 South Third Street which Marathon Petroleum both owns and operates. The facility receives petroleum products in large batches via the Wolverine Pipeline that get stored in numerous above ground storage tanks. Products received via pipeline include gasoline, diesel fuel, and kerosene. Products received via tanker truck include ethanol, red dye, wholesale gas additive, lubricity, and conductivity. Ultimately the gasoline, diesel, kerosene, and ethanol are loaded into mobile tanker trucks for delivery to service stations and/or bulk plants. In addition, small quantities of various additives (red dye, wholesale gas additive, lubricity, and conductivity) may be injected into the products as they are loaded into the mobile tanker trucks. These products can also be shipped via pipeline from the north terminal into the Wolverine Pipeline. The facility is a major source and the purpose of the inspection was to determine compliance with their ROP No. MI-ROP-B9073-2014. The facility is also subject to 40 CFR Part 63 Subpart BBBBBB (Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities) but this inspection will not be determining compliance with this regulation since the AQD isn't delegated by the EPA to enforce it. Staff departed for the facility at approximately 10:40 a.m.

Staff arrived at the facility at approximately 12:35 p.m. after travel and having lunch. When walking up to the fenced off office area staff ran into an employee staff remembered from their previous inspection named Tricia Kniffin-Presswood (Terminal Operator). She let staff in the office gate which is locked and staff introduced them self to Tricia. Staff then asked if Kevin Urdzik (Terminal Manger) was available. Tricia said that Kevin is now at a Jacksonville, Florida facility and that Brendan Anderson is the new Terminal Manager. She led staff into the office area and then into the break/conference room where Brendan and some others were finishing up lunch. Staff introduced them self to Brendan, stated the purpose of the visit, and exchanged business cards. Brendan then asked staff what the inspection entailed. Staff explained to Brendan about the various records required to be kept by the ROP and the equipment outside that staff would want to look at. Staff then asked Brendan if Jackie Gast (Environmental Professional) still handled the various environmental records for them. Brendan said that Jackie is now an Environmental Supervisor with Corporate and their new environmental person is Victor Brzeg. Staff mentioned that he should've known that because staff had talked with Victor back in April on a conference call.

Staff then proceeded to go over items contained in the ROP with Brendan and staff first asked him to verify that the emission unit summary table descriptions were correct and what products were stored in each tank. The following is a summary of the emission units at the facility. With regards to the tanks, staff will also list what is now stored in each of them in BOLD under the emission unit ID Brendan verified that all the tanks listed were correct as well as the products stored in them except tank EUTK20-13 at the North Terminal had been mothballed where it used to contain ULSD #2. He also said that tank EUTK35-4 now stores ULSD #1 where it used to Store ULSD #2 and that tank EUTK67-12 now contains Premium Gas 91 Octane where it used to store ULSD #2. Staff mentioned that if that's the case with regards to tank EUTK67-12, the description mentions the tank has a cone roof and any storage tanks for gasoline need to have an internal floating roof (IFR). Brendan said that it does have an IFR and showed staff inspection records of its gaskets and seals. Staff followed up later regarding this and recalls that they did submit a PTI application and PTI No. 122-16 was issued in September 2016. The PTI didn't change any requirements of the ROP other than it updated the emission unit description to reflect the IFR. Staff cut and pasted the updated description into the EU Summary Table below. Staff then asked if they still track their daily inventory electronically like had been showed to staff previously. Brendan said that they do and he showed staff the various terminal End of Day (EOD) and End of Month (EOM) Inventory Reports. The reports appear really accurate with an accuracy of only +/- a few gallons.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device (s))	Installation Date/ Modification Date	Flexible Group ID
EURACK-SOUTH	Loading rack for South Terminal with carbon absorption system for primary control device and a portable combustor unit as the backup control device.	01-01-61/ 12-31-82/ 10-24-00	FGLOADRACKS FGMACT-BBBBBB
EURACK-NORTH	Loading rack for North Terminal with carbon absorption system for primary control device and a portable combustor unit as the backup control device.	01-01-71/ 12-31-82	FGLOADRACKS FGMACT-BBBBBB
EUVCU-PORT	Portable vapor combustor (either a RANE or John Zink) used as the backup control system for the loading racks.	06-01-91/ 06-01-00	FGLOADRACKS FGMACT-BBBBBB
EUTK20-13 Mothballed	17,677 barrel (742,434 gal) capacity above ground cone roof storage tank for fuel oil at North Terminal.	01-01-71/NA	FGTANKFARM
EUTK25-3 Premium Gas (91 Octane)	19,965 barrel (838,539 gal) capacity above ground storage tank, changed from an external to internal floating roof (geodome) in 2000 at South Terminal.	01-01-71/ 10-03-00	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK31-11 Premium Gas (91 Octane)	28,716 barrel (1,206,072 gal) capacity above ground fixed roof storage tank with internal floating roof at North Terminal.	01-01-71/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK35-4 ULSD #1	29,255 barrel (1,228,710 gal) capacity above ground cone roof storage tank for jet kerosene and fuel oil at South Terminal.	01-01-61/NA	FGTANKFARM
EUTK55-2 Blend Grade Gas (84 Octane)	46,370 barrel (1,947,540 gal) capacity above ground fixed roof storage tank with internal floating roof at South Terminal.	01-01-61/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK55-5 Blend Grade Gas (84 Octane)	47,124 barrel (1,979,208 gal) capacity above ground storage tank, changed from an external to internal floating roof (geodome) in 2003 at South Terminal.	01-01-61/ 08-01-03	FGTANKFARM FGFRTANKS FGMACT-BBBBBB

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device (s))	Installation Date/ Modification Date	Flexible Group ID
EUTK55-6 Ethanol	45,640 barrel (1,916,880 gal) capacity above ground fixed roof storage tank with suspended internal floating roof at South Terminal.	01-01-71/ 11-11-13	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK55-7 Blend Grade Gas (84 Octane)	44,020 barrel (1,848,840 gal) capacity above ground fixed roof storage tank with internal floating roof at South Terminal.	01-01-66/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK64-9 Blend Grade Gas (84 Octane)	56,146 barrel (2,358,132 gal) capacity above ground fixed roof storage tank with internal floating roof at North Terminal.	01-01-71/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK67-12 Premium Gas (91 Octane)	59,270 barrel (2,489,340 gal) capacity above ground cone roof storage tank changed to an internal floating roof in 2016 at North Terminal.	01-01-71/2016	FGTANKFARM
EUTK80-8 ULSD #2	72,390 barrel (3,040,380 gal) capacity above ground cone roof storage tank at South Terminal.	01-01-77/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTK100-10 Blend Grade Gas (84 Octane)	88,858 barrel (3,732,036 gal) capacity above ground fixed roof storage tank with internal floating roof at North Terminal.	01-01-71/NA	FGTANKFARM FGFRTANKS FGMACT-BBBBBB
EUTKT-1 Transmix	1,198 barrel (50,316 gal) capacity above ground fixed roof transmix tank with internal floating roof at South Terminal.	01-01-61/NA	FGTANKFARM FGFRTANKS

After going through the emission units with Brendan, staff then started going through the various record requirements of the ROP. Brendan ended up printing out staff the most recent 12-month rolling time period of records that covered July 1, 2017 through June 30, 2018. Staff looked things over to make sure it was what they needed to see and then told Brendan he would review them more thoroughly back at the office.

Staff then asked Brendan some questions about the two terminals (North and South) and the current operations occurring at each one. The following is a summary of staff's discussions with Brendan, what staff noted during the on-site inspection, and later what staff noted in a review of the records back at the office. According to Brendan, the North Terminal loading rack is still not being used at all and the storage tanks that are there are only being used for product storage for the South Terminal. He said that there are 5 tanks at the North Terminal and as mentioned earlier under the emission unit descriptions, two store Blend Grade Gasoline (84 Octane), two store Premium Grade Gasoline (91 Octane), and one is mothballed. He said they do have one additive tank there which is lubricity but they no longer have any red dye tanks. He went on to say that the lubricity tank will be mothballed by the end of the year as well. Staff then asked about the Vapor Recovery Unit (VRU) at the North Terminal. Historically both the North and South Terminals used a carbon adsorption system as VRUs. Brendan said that the VRU at the North Terminal has still been shut down since no loading is occurring at that terminal. Staff had been told during the previous inspection that the carbon has been removed from the unit and all pipes were purged with nitrogen and blind flanged off. Brendan verified that was still the case. He also mentioned

that they had pretty much removed all the equipment at the loading rack and it has no load out arms or anything associated with product loading anymore. NOTE: Staff did not inspect the VRU or loading rack at the north facility because of this.

Staff then asked about the South Terminal and if operations were the same as they were during the previous inspection which Brendan verified. Brendan mentioned that the loading rack still has three lanes. He said that the two outside lanes (1 and 3) are used for dispensing all of their petroleum products and lane 2, which is in the middle, is strictly used for the off-loading of ethanol from tanker trucks. The VRU here is larger than the one at the north terminal and was manufactured by Jordan Technologies in 2000. During previous inspections staff was told that this one was sized large enough to handle both terminals if needed. Staff then asked about the portable flare and Brendan said that it is not on site and is stored at their Detroit facility. He said it is brought in if they are doing maintenance on the VRU or if something catastrophic should happen which they hasn't been the case yet since he's been terminal manager. Brendan said that both terminals are still wired so that all they have to do is bring the flare in and hook it up when needed. He said that the unit is ignited by propane. They still have a computer program that they can switch over to when running the flare that will track how long it has run and how much throughput it has handled.

Staff then went on a site tour with Brendan and another employee named Ryan. As mentioned earlier, staff did not go over to check on things at the North Terminal since the loading rack and VRU are not used. The South loading rack had no signs of leaking couplers, hoses, etc. that were noted. There was some staining on the floor but it looked more like oil leak spots from the tanker trucks. Overall, the terminal rack looked pretty clean. They also had instructions posted so drivers knew how to use the VRU and the dispensing hoses. No trucks were being loaded during the site tour but staff looked at some previous load out records for the VRU that were displayed on the Yokogawa electronic recorder. It appears that it regenerates at 28 to 30 inches of Hg (Mercury) and the requirement is that it has to be done above 26. According to Brendan and Ryan, the VRU will shut down if the required vacuum is not met and an alarm will be given. Brendan said that they actually have three or four safeguards built into the system that are constantly monitored and will shut down the VRU automatically if it's not operating properly. Brendan had given staff a copy of what a VRU downtime report looks like (See Attached). The VRU also has a CEMS that was installed a few years ago that monitors total hydrocarbon output of the stack and will cause the VRU to start up if emissions reach a certain level. This is in addition to it regenerating every 15 minutes during truck loading as required.

Next to the South Terminal loading rack is a Waste Water Tank (WA-10). Any water that goes through the terminal is collected and goes through an oil/water separator. The oil then goes into a Transmix Tank (T-1) and the water goes to WA-10. The waste water is ultimately pumped out by In-Serv and it is trucked to Beaver Oil in Indiana.

Note: Staff did not check out the roofs of any tanks because they had done that during previous inspections.

Staff then headed back to the office with Brendan and Ryan where he thanked them for their time. Staff mentioned to Brendan that things appeared to be in order but would get back with him if there was an issue or something was overlooked. Staff departed the facility at approximately 2:40 p.m.

Staff later reviewed the records back at the district office. The following is a summary of the ROPs conditions and staff's inspection findings.

SOURCE WIDE CONDITIONS: The facility has opt-out HAP limits of 24.9 tons for total HAPs and 9.9 tons for any single HAP in a 12-month rolling time period. Staff reviewed the records for the 12-month rolling time period ending in June 2018. It was noted that total HAPs emitted was approximately 2.5 tons and the highest individual HAP emitted was approximately 0.7 tons (typically hexane) which are both well below the allowable limits. (See Attached Spreadsheets)

EUTK80-8: This tank is subject to the New Source Performance Standard (NSPS) Subpart K because of its size and the date of which it was installed. However, Subpart K conditions do not apply when the material stored has a vapor pressure less than 1.5 psia. According to their tank storage records, Marathon still only stores Ultra Low Sulfur #2 Distillate in it since it was installed. Staff noted from previous inspections that the vapor pressure of this product was 0.19 psia which is well below the NSPS requirement.

FG-LOADRACKS: This emission unit includes both load racks located at the north and south terminals. As mentioned earlier, the north terminal loading rack is shut down as well as the VRU located there. The south loading rack has its emissions controlled by a carbon adsorption system. It appears that the facility is meeting

all the requirements for that type of emission control. The portable VPU (flare) still doesn't get used much and is not on site, but staff has been told that it is propane fired, is equipped with a thermocouple flame sensor, is being maintained properly, etc.

As for the carbon adsorption system, it is required to regenerate at a minimum vacuum of 26 inches of mercury once every 15 minutes during gas loading. As mentioned previously, no trucks were loading during staff's tour of the facility, however; staff looked at some previous readings during loadouts and it indicated the vacuum readings between 28 and 30 inches during the regeneration cycle. Also as mentioned previously, the facility is keeping track of maintenance, malfunctions, etc. on the equipment through their Vapor Control System Downtime Report which is also required by 40 CFR Part 63 Subpart BBBBBB. The facility also installed a CEMS on the stack of the VRU that monitors total hydrocarbons coming out of it and will automatically kick on the VRU if they reach a certain level. The facility has been doing RATA testing on the CEMS unit.

As for product loading and unloading, it also appears that the facility is meeting the requirements of the permit. As mentioned earlier, staff noted instructions posted near both loadouts for both types of vapor control systems. It appears that the loadouts are equipped with interlocking systems and vapor tight collection lines. Brendan said that they still do a lot of sight, sound, and smell leak checks and they still have a meter for checking for leaks. The ROP requires that they do quarterly checks with the meter but the facility has been doing them more frequently do to the NESHAP BBBBBB that applies to them. Staff asked Brendan about the annual tanker certification program and if Marathon still has the program on their website called Hauler Portal. Brendan said that they do and said that it is an on-line program where carriers can enter their tank tightness testing and driver information. As mentioned in the previous inspection report, this allows the various carriers to submit their certification once instead of having to have their tanker haulers fill one out for every one of Marathon's terminals. After a driver enters one of Marathon's facilities, the drivers must enter their tanker number at the loadout system prior to loading. If any tanker number is not shown in the computer as being certified, the loadout system will lock them out and not allow them to load. As also mentioned previously, it appears that the south terminal loading rack is being properly maintained and did not notice a lot of signs of leaks or stains. The stack height appears to be accurate for the equipment that is used and on-site.

FGTANKFARM: This emission unit includes all tanks at the facility that have applicable requirements. The facility is maintaining monthly and 12 month rolling VOC emission rates for the tanks. They are also monitoring and recording monthly and 12-month rolling gasoline throughputs for both the north and south terminals. The permit limits the facility to VOC emissions of 53.11 tons and 580 million gallons of gasoline throughput. According to records, the highest 12 month rolling total ending in June 2018 indicated VOC emissions at approximately 30.2 tons in November 2017 and gasoline throughputs of approximately 324,363,226 million gallons in September 2017. (See Attached Spreadsheets).

FGFRTANKS: These are all the fixed roof tanks that are subject to Rule 604 and/or Rule 702. Any tank that stores anything other than distillate are equipped with internal floating roofs equipped with seals as required. They still have the program on a facility computer that indicates what each tank is storing along with other information. It appears that they are complying with the requirements of both Rule 6 and Rule 7.

FGMACT-BBBBBB: As mentioned in the opening paragraph, the AQD is not delegated to enforce the federal NESHAP for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities as specified in 40 CFR Part 63 Subparts A and BBBBBB. Compliance requirements with this regulation are cited under the Flexible Group FGMACT-BBBBBB as well as mentioned in the "Other Requirements" section of that Flexible Group in the ROP. The facility has submitted the initial notification and the notification of compliance status on time as required (May 9, 2008 for the initial notification and January 10, 2011 for the notification of compliance status). In their notification of compliance status report (MACT Reporting File – Orange) it lists all the methods in which they will comply with the NESHAP. They have been submitting these reports semi-annually but staff does not review them to make any type of compliance determination.

The facility has also been submitting the semi-annual and annual ROP certifications for all of the above emission units and/or flexible groups as required.

CONCLUSION: The facility appears to be in COMPLIANCE with ROP number MI-ROP-B9073-2014. Staff did not make a compliance determination with regards to the MACT BBBBBB since we aren't delegated to enforce it.

NAME Matt Deh

DATE 8-2-18

SUPERVISOR MOB/3/2018