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

B921543336

FACILITY: COUSINS PETROLEUM		**SRN / ID:** B9215
LOCATION: 7965 HOLLAND RD, TAYLOR		**DISTRICT:** Detroit
CITY: TAYLOR		**COUNTY:** WAYNE
CONTACT: Joanne Robinson , Owner		**ACTIVITY DATE:** 02/16/2018
STAFF: Katherine Koster	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY2018 Targeted Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection
INSPECTED BY: Katie Koster, AQD
PERSONNEL PRESENT: Earl Henley, Fuel Tester
FACILITY PHONE NUMBER: 313-291-1700
FACILITY FAX NUMBER: 248-559-1861

FACILITY BACKGROUND

Cousins Petroleum is a bulk gasoline terminal previously owned by Martin Oil Company located in Taylor, MI. However, the facility no longer receives petroleum products from the pipeline. The tanks have been disconnected from the pipeline, and the loading rack has not been used. Currently, one tank, Tank 3, stores a spent water propylene glycol mixture that is generated at DTW Metro airport when deicing planes. The remaining tanks are empty.

COMPLAINT/COMPLIANCE HISTORY

No complaints have been received against this facility.

Facility was previously inspected by AQD in 2014. No issues were noted at that time. Facility obtained an opt out permit in response to the 2005 AQD inspection and violation notice (PTI 345-05).

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING LOVs

None

INSPECTION NARRATIVE

On February 16, 2018, AQD inspector, Katie Koster, arrived at Cousins Petroleum at approximately 9:30 a.m. I met with Mr. Earl Henley, fuel tester, in the control room and he accompanied me about the facility. He is the only employee at the facility. As this facility is unmanned a large portion of the time, I contact the owners (Joanne and Steve Robinson) to schedule the inspection. Their contact information is robinsonjoanne@sbcglobal.net and oxoil1@gmail.com.

We discussed the facility operations which have not changed since the prior inspection. The facility no longer receives any products from the pipeline. All tanks are disconnected from the pipeline, and Mr. Henley showed me the physical location where the piping had been disconnected.

There are five storage tanks on site:

Tank 1 – Constructed in the 1960's and installed a floating roof in 1988. 55,000 barrel capacity (2.3MM gallons). Initially used to store unleaded gasoline. Empty.

Tank 2 – Constructed in the 1960's and installed a floating roof in 1988. 55,000 barrel capacity. Initially used to store premium unleaded. Empty.

Tank 3 – Constructed in the 1960's and installed a floating roof in 1988. 80,000 barrel capacity (3.4MM gallons). Tank now stores a spent mixture of water/glycol that was used for de-icing planes. The mixture is typically 15% glycol as tested and confirmed by US Ecology (formerly EQ).

Tank 4 – Constructed in 1988 with a fixed roof. 30,000 gallon capacity. Empty.

Tank 5 – Constructed in 1988 with a fixed roof. 30,000 gallon capacity. Empty.

All tank exteriors appeared to be in fair condition. I did not observe any signs of leakage from Tank 3. Tanks are surrounded by a gravel berm to contain leaks and spills. An underground collection system transports any surface water present via underground piping to a three stage oil water separator.

An empty 5000 gallon horizontal storage tank is located north of Tank 1 and used to store additives to be mixed into the gasoline during loading.

As stated above, Tank 3 contains a spent water/propylene glycol mixture. The mixture is being stored for US Ecology. US Ecology does not have the capacity to store all of the spent liquid while it awaits further processing at one of their facilities. As such, Cousins Petroleum is a holding facility for EQ. Tankers operated by MyWay trucking transport the spent deicer from Metro airport to Cousins. Each load that is delivered is about 10,000 gallons. This does not occur at the loading rack. Flexible hoses from the tanker are used. I inspected the flexible hose and it appeared to be in good condition. US Ecology/EQ sends tanks to the facility in the warmer months to collect the material and transport it to one of their sites.

We returned to the office and Mr. Henley presented the receipts for the recent deliveries of the water/glycol mixture; each load was listed as being 10,000 gallons. At this time, 2,770,307 gallons of spent fluid are in Tank 3. Attached is a record of the monthly fluid level in the tank from January 2017 through February 2018 as of the first of each month.

APPLICABLE RULES/PERMIT CONDITIONS

The storage of water/glycol mixture in Tank 3 appears to meet the exemption criteria for Rule 285(2)(b): "Changes in a process or process equipment which do not involve installing, constructing, or reconstructing an emission unit and which do not involve any meaningful change in the quality and nature or any meaningful increase in the quantity of the emission of an air contaminant therefrom."

Switching from gasoline to a mixture that is 80-85% water, and 15-20% propylene glycol, is not a meaningful change in the quality and nature of emissions and would not increase the quantity of emissions (VOC's). Propylene glycol mixes completely with water.

The nature of emissions are similar (volatile organic compounds), toxicity of emissions are less for propylene glycol (ITSL = 6000 ug/m3) than gasoline (IRSL = 2 ug/m3) which also contains numerous HAPs, the maximum potential hourly emissions are much less as the volatility of the deicing mixture is far less than the volatility of gasoline which is 100% by weight. This results in a significantly lower quantity of VOC emissions.

In PTI 345-05, there is a facility wide HAP limit of 9 tons for a single HAP and a VOC limit of 50 tons. There is also a 22 ton combined VOC limit for all of the floating roof tanks. Propylene glycol is not a HAP. VOC emissions from Tank 3 are minimal at this time. The loading rack and all other tanks are not in use so those permit conditions are not applicable. The remaining conditions for Tank 3 apply to gasoline storage which are not applicable at this time.

Federal regulations
NSPS K applies to Tank 3. This was included in the permit conditions. However, no petroleum liquid has been stored since 2005 so there are no conditions to evaluate at this time.

NSPS XX (Standards of Performance for Bulk Gasoline Terminals) – In the permit application, facility claims they are exempt under 60.500(c). Facility states that vapor recovery was added to the rack to comply with State of Michigan Part 6 rules and commenced before the August 18, 1983 deadline in the NSPS. Based on dates listed on permit forms C-5662 and C-5663, vapor recovery and bottom loading modifications commenced in 1981.

NESHAP R (Bulk gasoline terminals and pipeline breakout stations) exempts facilities that are not major source of hazardous air pollutants (HAP's) under 63.420(a)(2). Not applicable due to a HAP's opt out limit in the PTI.

MAERS

Because Tank 3 is subject to NSPS Subpart K, this is a Category II facility in MAERS. MAERS was submitted for 2016. The deadline for submitting CY2017 MAERS has not passed.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS

There is a gravel lot leading into the main office of the facility. I did not notice a fugitive dust problem at the time of the inspection nor has AQD received any fugitive dust complaints against this facility. However, as it is winter time, the ground is wet.

FINAL COMPLIANCE DETERMINATION

At the time of the inspection, facility appears to be in exempt from Rule 201 based on the current operation. The majority of the permit conditions are not applicable as they pertain to storing gasoline. Also, loading rack conditions are not applicable as it is not in use. Therefore, status of compliance was chosen.

NAME Katie Koeler DATE 2/16/18 SUPERVISOR W. M.