

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B546269816

FACILITY: Tuscola Energy - Rich Field Gas Plant		SRN / ID: B5462
LOCATION: 7770 McTaggart Rd, NORTH BRANCH		DISTRICT: Lansing
CITY: NORTH BRANCH		COUNTY: LAPEER
CONTACT: Ed Blake , Foreman		ACTIVITY DATE: 11/09/2023
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced inspection and review of facility recordkeeping, conducted as part of a Full Compliance Evaluation, or FCE.		
RESOLVED COMPLAINTS:		

On November 9, 2023, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) conducted an unannounced inspection of Tuscola Energy's Rich Field Gas Plant. AQD also reviewed facility recordkeeping, in the weeks before and after the inspection. These were Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE).

Facility environmental contact:

- Jeff Adler, President; 989-213-8184; jeffadler31@hotmail.com
- Ed Blake, Production Foreman; 989-619-7824; weblake@outlook.com

EGLE AQD contact:

Dan McGeen, inspector; 517-648-7547; mcgeend@michigan.gov

Facility description:

Tuscola Energy's Rich Field Gas Plant, State Registration Number (SRN) B5462, receives the sour gas produced from the nearby Rich Field Tank Battery, SRN B7394. The sour gas is then combusted by the flare, converting the hydrogen sulfide (H₂S) in the gas to sulfur dioxide (SO₂).

Emission units:

Emission Unit ID*	Emission Unit Description	Permit To Install (PTI) And Renewable Operating Permit (ROP)	Compliance Status
EUGAS-TREATING	Casing head gas containing 9 to 11% hydrogen sulfide (H ₂ S) goes through the well head inlet directly to the flare for combustion	PTI 85-23, and ROP MI-ROP-B5462-2021a	Noncompliance

*An *emission unit* is any part of a stationary source which emits or has the potential to emit an air contaminant.

Regulatory overview:

The Rich Field Gas Plant is considered a major source because it has the potential to emit 100 tons per year or more of one of the criteria pollutants, SO₂ at 100 or more tons per year (TPY). In fact, actual emissions of SO₂ are typically over 200 tons per year (TPY). Major sources are required to have a Renewable Operating Permit (ROP). Tuscola Energy operates under MI-ROP-B5462-2021a.

Note: Because the Rich Field Gas Plant has the potential to emit over 100 tons of SO₂ per year and therefore is considered a major stationary source for PSD.

Tuscola Energy receive an approved Permit to Install (PTI) No. 85-23, on July 10, 2023, allowing the company to move away from use of a gas chromatograph (GC) to measure H₂S in the sour gas. A GC is considered vintage technology and is not currently required in new air permits which the AQD issues where there are requirements to determine H₂S content in sour gas. The new PTI requires H₂S monitoring using either or both of the following:

- Stain tubes (such as Draeger tubes).
- Lab analysis of gas samples.

Following issuance of PTI 85-23 on July 10, 2023, the company did not apply for a Minor Modification of their existing ROP to AQD pursuant to MAPC Rule 216(2), prior to operating under the new PTI. The AQD Lansing District Office (LDO) will advise the company that an application must be submitted.

Location:

- Address: 7770 McTaggart Road, North Branch, 48461, Lapeer County.
- Description: The Rich Field Gas Plant is in a predominantly agricultural area. It is about one mile to the east northeast of the Rich Field Tank Battery, SRN B7394. There are residences to the north, south, southeast, and southwest. A wooded area is to the immediate east.

History:

Tuscola Energy's Rich Field Gas Plant had historically been a natural gas sweetening facility, under previous owners including Breitburn Operating LP, Quantum Resources Management LLC, Prize Petroleum LLC, and Hyperion Energy, L.P. Prior to December 2015, the sour gas produced from the nearby Rich Field Tank Battery, SRN B7394 was sent through lines directly to this site to be sweetened via H₂S removal (amine treatment). From the end of December 2015, through the present date, all sour gas from the Tank Battery site has been sent directly to the Rich Field Gas Plant flare to be combusted, converting the H₂S in the gas to SO₂.

All emission units other than EUGASTREATING were rendered incapable of operating by the previous facility owner, Breitburn. Air gapping by Breitburn took place on November 18, 2020, as discussed in Michelle Luplow's November 20, 2020 regulatory applicability determination activity report.

Tuscola Energy purchased the facility from Breitburn in 2021. On July 23, 2021, a minor modification to the recently renewed ROP was approved, MI-ROP-B5462-2021a.

Recent inspections:

- 8/31/2022
- 10/29/2019

Safety apparel required:

Safety glasses, steel-toed boots, hard hat, high visibility vest, and hearing protection, for a general site visit. For any time spent indoors, the AQD staff wore a disposable paper mask, out of personal preference, during the ongoing COVID-19 pandemic.

Odor evaluation:

AQD was represented by Dan McGeen, inspector.

- Arrival time in area: 10:23 AM.
- Weather conditions: Cloudy and 48 degrees F, with winds out of W at 10-15 miles per hour (mph).
- Route taken: North on M-24, east on Barnes Rd., south on McTaggart Rd., and past plant. Then east on Dodds Rd., north on Heatly Rd., east on Barnes Rd., south on Silverwood Rd., east on Turtle Lake Rd. to the dead end. Then south on Silverwood Rd., east on Dodds Rd., and north on McTaggart Rd. to plant.

Odors were detected as follows:

Time	Location	Description Of Odor	Odor Level	Comments
10:28 AM	McTaggart Rd. & Dodds Rd.	H2S	1	
10:29 AM	Dodds Rd.	Wet autumn leaves	1	East of intersection with McTaggart Rd.

The AQD 0 to 5 odor scale is as follows:

0 - Non-Detect

1 - Just barely detectable

2 - Distinct and definite odor

3 - Distinct and definite objectionable odor

4 - Odor strong enough to cause a person to attempt to avoid it completely

5 - Odor so strong as to be overpowering and intolerable for any length of time

The brief H2S odor detected at the corner of McTaggart and Dodds Roads today was determined to be insufficient at this time to constitute a violation of Michigan Air Pollution Control (MAPC) Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

Arrival:

This was an unannounced inspection.

- Arrival time: 10:44 AM.
- Weather conditions: Mostly sunny and 48 degrees F, with wind out of W at 5-10 mph.
- Visible emissions: 5-10% opacity black smoke, instantaneously, from the flare.
- Odors: Level 1 H2S odor in facility parking lot at 11:03 AM.

After arriving onsite, D. McGeen called Tuscola Energy President Jeff Adler, to see if any representatives from the company were available to take part in the inspection. J. Adler indicated that he was out of town today, but that he would call someone and ask them to meet D. McGeen at the site.

Production Foreman Ed Blake soon arrived, and D. McGeen provided his credentials, per procedure. The reason for the visit was discussed.

E. Blake asked it would be possible to provide a copy of the facility's new PTI 85-23, so they could have a printed copy for the site operators to refer to. D. McGeen gave him the printed copy of the PTI which he had brought, at the end of the inspection.

PCE activity No. 1: Inspection:

Overview of process:

All gas is sent directly to the flare and burned. It is no longer treated for H2S. All well gas is said to come from the nearby Tuscola Energy Rich Field Tank Battery, SRN B7394, also known as their central tank battery (CTB). At the CTB, a heater treater separates out oil, water, and gas. Oil is sold, water is reinjected into injection wells, and the gas comes to the gas plant, where it is measured at a pipe rack, and the gas plant inlet separator removes any liquids, please see attached Photo 001. The gas then goes to the flare "knockout drum" for a last opportunity to remove any remaining liquids, please attached see Photo 002. The gas is then flared. A "fire eye" looks at the temperature of the flare to make sure the flare is running at a minimum temperature.

At the time of the inspection, D. McGeen documented instantaneous data from the monitor on their incoming waste gas line, as follows:

- Instantaneous gas flow: 61.8 mscf
- Average total flow yesterday: 65.6 mscf
- Operating pressure: 2.5-3.0 lbs (range said to be 2-5 lbs)

The daily flow is recorded and is entered for each day in monthly Rule 403 reports, pursuant to MAPC Rule 403, PTI 85-23, and the ROP.

Compliance check with special conditions (SC) of PTI 85-23:

EUGAS-TREATING EMISSION UNIT CONDITIONS

DESCRIPTION Casing head gas containing 9 to 11% hydrogen sulfide (H2S) goes through the well head inlet directly to the flare for combustion.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT Candlestick Flare

	Requirement	Comments	Complies?
--	-------------	----------	-----------

PTI 85-23, SC No.			
EUGAS-TREATING, I.1	2,227 pounds/24-hour period* *This is equivalent to 1,183 pounds H2S to the waste gas flare.	The August 2023 monthly report for Rule 403 showed that SO2 emissions for 8/8/2023 were 2,737.46 lbs. This was said to be based on an erroneous measurement of waste gas to the flare that day, due to fluid in the flare's gas line. Therefore, it was not an actual emissions exceedance.	Yes
EUGAS-TREATING, I.2	Visible emissions from the flare shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a).	Black smoke was intermittent, with frequent puffs of opacity ranging from 0 to 15% and occasionally 20% opacity. However, it mostly stayed around 10%. It did not appear that the 6-minute average opacity limit of 20% was at risk of being exceeded. *The intermittent but frequent opacity from the flare appeared to indicate that the device was not being maintained or operated properly. This violates MAPC Rule 910, which requires that an air cleaning device be installed, maintained, and operated in a satisfactory manner.	Yes*
EUGAS-TREATING, II.	NA	NA	NA
EUGAS-TREATING, III.1	The permittee shall not operate EUGAS-TREATING unless a MAP as described in Rule 911(2), for the flare associated with EUGAS-TREATING has been submitted within 60 days of permit issuance and is implemented and maintained. The MAP shall, at a minimum, specify the following:	A MAP was received by AQD on 12/16/2021. Following minor comments by AQD, the MAP was resubmitted on 4/22/2022.	Yes

EUGAS-TREATING, III.1.a	A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repairs, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.	The required items were identified in the MAP.	Yes
EUGAS-TREATING, III.1.b	An identification of the source and operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.	The source and operating variables to be monitored were listed, but a normal range was not identified for the parameter of opacity. AQD will work with the company on this. For monitoring opacity, the company needs to have at least one person, preferably two, certified at least once as an opacity reader.	Yes, overall
EUGAS-TREATING, III.1.c	A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.	A description of the corrective procedures was provided.	Yes
EUGAS-TREATING, III.1. (note)	If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall	AQD did not notify the permittee of MAP approval within 90 days of submittal, so the MAP is considered approved.	Yes

	<p>submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.</p>		
EUGAS-TREATING, III.2	<p>The permittee shall operate a continuously burning pilot flame at the flare. In the event that the flame is extinguished, shut-in of all wells feeding the equipment shall commence automatically within one second. Operation of the equipment shall not be restarted unless the pilot flame is reignited and maintained. Pilot fuel shall be only sweet natural gas.</p>	<p>The pilot flame was seen to be continuously burning, during the inspection.</p>	Yes
EUGAS-TREATING, III.3	<p>The permittee shall conduct a program of continuous monitoring of concentrations of H₂S in any building enclosing a sweetening process. The sensors shall be placed as close to the process equipment as practicable. The system shall be designed, installed, and maintained to provide a visual alarm when the H₂S concentration is more than 50 ppm.</p>	<p>NA, as there is no longer a sweetening process capable of operation in any building at the plant. There are therefore no operating "in shed" H₂S monitors. The sweetening process was air gapped on 11/18/2020.</p>	NA
EUGAS-TREATING, III.4	<p>The permittee shall automatically begin a safe and orderly shutdown of all process inflow streams to the facility if the concentration of H₂S, as determined by the H₂S monitors, is more than 100 ppm in any building enclosing a</p>	<p>NA, as there is no longer a sweetening process capable of operation in any building at the plant, and so there are no operating "in shed" H₂S monitors. The sweetening process was air gapped on 11/18/2020.</p>	NA

	sweetening process. Full operation may be resumed only after successful corrective measures have been applied.		
EUGAS-TREATING, III.5	The permittee shall maintain, on all field laterals or gathering lines carrying sour gas, the pressure sensing shut-down valves installed in the control room to terminate gas flow in case of pipeline rupture or failure.	AQD has been advised that there is a pressure-sensing shut-down valve on the gas line entering the plant, which appears to be a gathering line.	Yes
EUGAS-TREATING, III.6	The permittee shall maintain the vigorous maintenance program designed to prevent odor emissions from the storage tanks, vents and all other potential gas emission points, as approved by the AQD District Supervisor.	E. Blake said that the only place they get odors is at the nearby Rich Field Tank Battery, B7394. D. McGeen noticed only brief, infrequent odors onsite at the Rich Field Gas Plant. The vigorous maintenance program approved by the AQD District Supervisor appears to be a reference to the MAP.	Yes
EUGAS-TREATING, IV.1	The permittee shall not operate this facility unless the following measures are maintained as approved by the AQD District Supervisor:	Please see below.	Please see below
EUGAS-TREATING, IV.1.a	The system for continuously monitoring the flame at the flare is installed and operational.	E. Blake explained the operation of the "fire eye" which continuously monitors the temperature of the flare.	Yes
EUGAS-TREATING, IV.1.b	In-shed H2S monitors are installed and operational.	AQD was shown that an in-shed H2S monitor was not operating. It is AQD's understanding that other in-shed H2S monitors were not being operated.	No
EUGAS-TREATING, IV.1.c	Storage tank vents and pressure relief valves control are installed and operational.	E. Blake explained the operation of valves and the relief line at the plant. He indicated that there are no	Yes

		storage tanks in service at the Rich Field Gas Plant, and thus there are no storage tank vents.	
EUGAS-TREATING, V.	NA	NA	NA
EUGAS-TREATING, VI.1	The permittee shall monitor and record all of the following at the frequency indicated:	Please see below.	See below
EUGAS-TREATING, VI.1.a	Volumetric flow rate of sour gas going to the flare – per day, per calendar month, and per 12-month rolling time period.	The company is recording the volumetric flow rate of sour gas going to the flare on an hourly and daily basis, for each month. E. Blake indicated the daily value is around 94 mcf. AQD later emailed J. Adler to ask if they are keeping 12-month rolling records and was informed they are. J. Adler emailed a spreadsheet (attached) with daily flow rate for each day of operation in 2022 and 2023.	Yes
EUGAS-TREATING, VI.1.b	Readings of the concentration of hydrogen sulfide in the sour gas sent to the EUGAS-TREATING flare – quarterly. Both of the following are acceptable means of determining the concentration of hydrogen sulfide in the sour gas:	The company is taking readings of the concentration of H ₂ S sent to the flare more frequently than the quarterly-required minimum. The usual frequency was said to be monthly. In some monthly Rule 403 reports, the frequency was not only monthly, but sometimes daily.	Yes
EUGAS-TREATING, VI.1.b.i	Colorimetric detector tube (e.g. Draeger Tubes).	Monthly Rule 403 reports show that when they take readings of H ₂ S content of sour gas, it is done using Draeger tubes.	Yes
EUGAS-TREATING, VI.1.b.ii	Laboratory gas analysis.	NA, as the facility is using Draeger Tubes.	NA

EUGAS-TREATING, VI.1. (note)	The permittee shall perform 4 consecutive quarterly readings of the concentration of hydrogen sulfide in the sour gas. After successful completion of the 4 consecutive quarterly readings, the permittee may request an alternative monitoring schedule. Any request for an alternative monitoring schedule shall be submitted to the AQD District Supervisor for approval. The requested monitoring frequency shall be no less than annual.	The company is taking readings of the concentration of H2S sent to the flare more frequently than the quarterly-required minimum. The usual frequency was said to be monthly. In some monthly Rule 403 reports, the frequency was not only monthly, but sometimes daily.	Yes
EUGAS-TREATING, VI.2	The permittee shall calculate and record the SO2 emissions, in pounds per 24-hr period, for the previous month using the equation in Appendix A.	The company records SO2 emissions in lbs/day, for the previous month using the equation in Appendix A.	Yes
EUGAS-TREATING, VI.3	The permittee shall keep, in a satisfactory manner, records of the date, time, and findings of all maintenance activities and repairs, corrective procedures, operational changes, and other parameters for the flare associated with EUGAS-TREATING, as specified in the MAP in SC III.1, as well as those activities conducted according to the maintenance program specified in SC III.6.	D. McGeen was informed that the facility has not been keeping written maintenance records but was assured that they will begin to do so.	No
EUGAS-TREATING, VI.4	The permittee shall perform non-certified visible emissions observations on a daily basis when the flare is operating. If the permittee observes visible emissions above 20%, the permittee shall immediately initiate corrective actions or operational changes to reduce	D. McGeen was informed that although they do a daily non-certified visible emission reading (using their own 1 to 5 scale), they do not keep written records. He was informed that they will start keeping records.	No

	<p>visible emissions below 20% opacity. Records of the non-certified visible emissions observations, the reason for any visible emissions in excess of 20% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request.</p>	<p>If the facility does not know how to determine 20% opacity, the facility cannot be expected to know when they are past the threshold to take corrective actions. The company subsequently requested guidance on how to take opacity readings and document them, and/or examples of how other facilities comply.</p> <p>Links to opacity training information will be emailed to the company. AQD to recommend having at least one person from the company become certified, preferably two, in the upcoming Spring 2024 Smoke School training.</p>	
EUGAS-TREATING, VII.	NA	NA	NA
EUGAS-TREATING, VIII.1	<p>The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air from the stack SVFLARE-EMERG with a maximum diameter of 4 inches and a minimum height of 100 feet above ground level unless otherwise noted.</p>	<p>D. McGeen took handheld readings with a Nikon Forestry Pro II laser rangefinder, and the flare height was at least 130 feet in height, based on the two following readings:</p> <ul style="list-style-type: none"> • 130 feet • 139 feet <p>E. Blake indicated that the flare stack diameter was either 3 or 4 inches. Visually, this looked to be an accurate assessment.</p>	Yes
EUGAS-TREATING, IX.1	<p>The permittee shall install and maintain fencing, warning signs, and/or other measures necessary to prevent unauthorized individuals from entering the plant property and buildings.</p>	<p>Fences and warning signs were in place. Please see below for details.</p>	See below

<p>EUGAS-TREATING, IX.2</p>	<p>The permittee shall ensure that at least one sign on each side of the plant property reads “Danger – Poison Gas.”</p>	<p>A minimum of one such “Danger – Poison Gas” sign was found on each side of the plant property, on the exterior side of the fence, as follows:</p> <ul style="list-style-type: none"> • North: 2 signs. • East: several signs. • South: 3 signs + 1 “caustic gas” sign. • West: 1 sign. <p>Please see attached photos for examples. A photo was not taken of any sign on the east fence, because D. McGeen was inside the eastern perimeter, looking at the back of the sign. E. Blake moved a sign just enough that he reported being able to see the required verbiage on the front.</p>	<p>Yes</p>
<p>EUGAS-TREATING, IX.3</p>	<p>The permittee shall conspicuously place signs at the facility stating the emergency phone numbers for the facility manager, local and state police, and ambulance service.</p>	<p>The company phone number was posted, but not the emergency numbers. E. Blake indicated a sign would be posted as soon as possible. See “Post-inspection follow-up,” below.</p>	<p>No</p>
<p>EUGAS-TREATING, IX.4</p>	<p>The permittee shall maintain an emergency procedures plan to be followed in the event of an emergency. This plan shall have been submitted to, and approved by, the AQD District Supervisor.</p>	<p>The company’s “H2S Emergency Contingency Plan Rich Field Lapeer County” was electronically submitted to AQD on 9/30/2022. Per AQD’s M. Luplow, this document was previously required by OGMD.</p>	<p>Yes</p>
<p>EUGAS-TREATING, IX.5</p>	<p>Prior to June 1 of each year, the permittee shall review the emergency procedures plan with appropriate local emergency personnel such as sheriff department, fire department, police, etc</p>	<p>This had not been done yet in 2023. See “Post-inspection follow-up,” below.</p>	<p>No</p>

<p>EUGAS-TREATING, IX.6</p>	<p>The permittee shall provide immediate notice to the Pollution Emergency Alert System (PEAS) and/or the AQD District Supervisor of any abnormal releases of H2S from this facility.</p>	<p>D. McGeen was informed that the company has been in contact with EGLE, OGMD inspectors Emma Atkinson and Jason Stilger for leaks at the nearby Rich Field tank battery, B7394. It appears, however, that there have not been leaks or incidents reported by the company to PEAS for the Rich Field Gas Plant.</p>	<p>NA</p>
<p>EUGAS-TREATING, IX.7</p>	<p>The permittee shall not operate this facility unless the minimum emergency and rescue equipment as specified by the Michigan Department of Health and Human Services is maintained in good condition at the site and personnel are trained in its use.</p>	<p>D. McGeen was assured that the following required safety equipment was onsite and in good condition:</p> <ul style="list-style-type: none"> • H2S “air packs”. • Personal H2S monitors, H2S certified. • Fire extinguisher(s). • First aid kit. 	<p>Yes</p>
<p>Appendix A</p>	<p>Emissions Calculations:</p> <p>The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EUGAS-TREATING.</p> <p>SO2 emissions (pounds/day) = V x (C/100% sour gas) x (64 lb SO2/mole H2S) ÷ (380 scf H2S/mole H2S)</p> <p>Where V = inlet gas volume in scf sour gas per day</p> <p>C = inlet gas hydrogen sulfide concentration in volume % (daily average)</p>	<p>The company reports SO2 emissions in lbs/day, for the previous month using the equation in Appendix A.</p> <p>Please see "Note on calculation of SO2 emissions," below.*</p>	<p>Yes</p>

(End of compliance checklist.)

***Note on calculation of SO2 emissions:**

Sulfur dioxide emissions are limited to 2,227 lb/day from the flare. The H2S concentration in the gas is required to be measured and recorded at least once per quarter via Drager tube or lab analysis, and the volumetric gas flow directed to the flare is required to be measured and recorded. At this time, because there is no gas treatment at this facility, the gas flow coming into the plant is the same gas volumetric flow rate that is being sent to the flare. Appendix 7 of the ROP provides the following equation to be used to calculate daily SO2 emissions in lb/day, based upon a 24-hour average:

$$\text{SO}_2 \text{ (lb/day)} = V \times (C/100\% \text{ sour gas}) \times (64 \text{ lb SO}_2/\text{mol H}_2\text{S}) \div (380 \text{ scf H}_2\text{S}/\text{mol H}_2\text{S})$$

V = inlet gas volume in scf sour gas per day

C = inlet gas hydrogen sulfide concentration in volume % (daily average)

The calculation used to calculate daily SO2 emissions is:

$$\text{Mcf (flow to flare)} \times 1000 \times [\text{H}_2\text{S mole}\%] \times 0.1684$$

The company uses the H2S concentration in mole % to calculate emissions. According to the AQD permit engineers, mol % and volume % are considered interchangeable when dealing with gases, therefore the use of mol% instead of vol% is acceptable, the previous AQD inspector, Michelle Luplow noted. The equation they use is the same required in the ROP and therefore Tuscola Energy appears to be using the correct equation to calculate their SO2 emissions.

Departure:

- Time of departure: 1:09 PM.
- Weather conditions: Sunny and 55 degrees F, with winds out of the WSW at 5-10 mph.
- Odors noted upon departure: None.

Post-inspection follow-up:

- Regarding PTI 85-23, EUGAS-TREATING, IX.3: On 12/21/2023, J. Adler called to say that a sign with the emergency number "911" had been posted by the facility entrance.
- Regarding PTI 85-23, EUGAS-TREATING, SC IX.5: On 12/21/2013, J. Adler called to say that he had contacted the local fire department and was waiting to hear back from them, to discuss the emergency procedures plan. On 1/8/2024, he advised that he had tried reaching the fire dept., but no one answered, so he will keep trying.

Compliance concerns:

The following compliance concerns were identified, as discussed below:

- PTI 85-23, EUGAS-TREATING, SC IV.1.b requires that in-shed H2S monitors be installed and operational, as does MI-ROP-B5462-2021a, EUGAS-TREATING, SC IV.1.c. These were not operating at the time of the inspection.
- PTI 85-23, EUGAS-TREATING, SC VI.3 requires the facility to keep maintenance records, as does MI-ROP-B5462-2021a, EUGAS-TREATING, SC VI.4. They have not been keeping records of maintenance activities, AQD was informed.

- PTI 85-23, EUGAS-TREATING, SC VI.4 requires the facility to keep records of the daily non-certified opacity observations, as does MI-ROP-B5462-2021a, EUGAS-TREATING, SC VI.5. They have not been keeping these records, AQD was informed. E. Blake indicated that they would do so immediately. However, the company has no certified opacity readers on staff, and could not realistically be expected to know if or when opacity was to go above 20%, at which point PTI 85-23, and the ROP require immediate corrective action.
- PTI 85-23, EUGAS-TREATING, SC IX.3 requires a sign to be posted, with emergency contact numbers for local and state police and ambulance service, as does MI-ROP-B5462-2021a, EU-GAS-TREATING, SC IX.3. The company had not done this, as of the date of the inspection.
- PTI 85-23, EUGAS-TREATING, SC IX.5 requires that prior to June 1 of each year, the permittee shall review the emergency procedures plan with appropriate local emergency personnel such as sheriff department, fire department, police, etc., as does MI-ROP-B5462-2021a, EU-GAS-TREATING, SC IX.5. The company had not done this so far in 2023, as of the 11/9 inspection.
- The intermittent but frequent opacity from the flare appeared to indicate that the device was not being maintained or operated properly, in violation of MAPC Rule 910, which requires that an air cleaning device shall be installed, maintained, and operated in a satisfactory manner.

PCE activity No. 2: Review of facility recordkeeping:

Reviews of the facility's required monthly MAPC Rule 403 reports, reporting H2S to the flare and resulting daily SO2 emissions, were reviewed in the weeks and months prior to and the weeks after the inspection. These are documented in the Michigan Air Compliance Enforcement System database, under "Reports Received." The only reported SO2 exceedance in the 12 months prior to the inspection was on 8/8/2023, which, the company indicated was not an actual exceedance but was an erroneous reading caused by liquids in the gas line leading to the flare.

Conclusion:

There were several instances of noncompliance with PTI 85-23 identified during the inspection, as well as a violation of MAPC Rule 910. A Violation Notice will be sent. Also, the AQD will follow up on having the company submit an application for a Minor Modification to their existing ROP due to PTI 85-23 having been issued in 2023.



Image 1(001) : Gas plant inlet separator.



Image 2(002) : Knockout drum on way to flare.



Image 3(003) : Required Poison Gas sign on west fence line.



Image 4(004) : Emergency contact sign on west fence line without ambulance, fire, or police dept. contact numbers.



Image 5(005) : One of the north fence line's two Poison Gas signs which were observed.



Image 6(006) : One of the south fence line's three Poison Gas signs which were observed. Not photographed was a Caustic Materials sign.

NAME 

DATE 2/14/2024

SUPERVISOR 