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

B857073804

FACILITY: THE ANDERSONS MARATHON HOLDINGS LLC		**SRN / ID:** B8570
LOCATION: 26250 B DR N, SHERIDAN TWP		**DISTRICT:** Kalamazoo
CITY: SHERIDAN TWP		**COUNTY:** CALHOUN
CONTACT: Evan Dankert , Safety & Compliance Administrator		**ACTIVITY DATE:** 08/02/2024
STAFF: Cody Yazzie	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On August 2, 2024 Air Quality Division (AQD) staff (Cody Yazzie) arrived at 26250 B Drive North, Sheridan Township Michigan at 2:10 PM to conduct an unannounced air quality inspection of The Andersons Marathon Holdings, LLC (hereafter Andersons) SRN (B8570). Staff made initial contact with the office receptionist and stated the purpose of the visit. Evan Dankert, Andersons, Safety and Compliance Administrator, is the site contact and arrived shortly thereafter and took staff to a conference room for further discussions.

The Andersons Marathon Holdings, LLC is a grain receiving, storage, and processing facility, producing ethanol and grain byproduct which is shipped off site for sale.

The main ethanol producing processes at the Facility are grain receiving and handling, grain milling, liquification, fermentation, distillation, dehydration, denaturing, and ethanol storage and loadout. The solids (dried distillers grain with solubles or DDGS) are separated from the ethanol after fermentation. These are dried, stored, and loaded out as agricultural feed product.

The initial ethanol plant commenced operations in August 2006. An expansion to the existing ethanol plant along with a combined heat and power (CHP) facility commenced operations in February 2017.

The particulate matter generated by the dry corn handling and processing and the DDGS handling and shipping are controlled by fabric filter baghouses. The VOC and air toxics emissions from the ethanol recovery and purification process, the solids drying process, and the liquification process are controlled by thermal oxidizers. The fermentation operation is controlled by wet scrubbers. The VOC and denaturant emissions from the final product loadout are controlled by a flare. A portion of the CO generated in the fermentation process is sent to a facility located adjacent to the plant.

The facility is located in a mainly rural area with corn fields on all sides. Andersons is considered a major source of NOx, CO, and VOC emissions.

Andersons was last inspected by the AQD on August 16, 2022 and appeared to be in Non-compliance at that time with daily pressure drop requirements for FGC-20 in PTI No. 119-19B Staff asked, and Mr. Dankert stated that the facility does not have any cold cleaners.

Mr. Dankert gave staff a tour of the facility. Required personal protective equipment are safety glasses, high visibility vest, steel toe boots, hearing protection, and hard hat. Staff observations and review of records provided during and following the inspection are summarized below:

Source-Wide Conditions:

Andersons has source wide conditions that cover all process equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

Andersons has several 12-month rolling emission limits for NOx, VOC, CO, HAPs, PM, PM10, PM2.5, and SO2 emissions. In addition to these emission limits the facility also has material limits for the total ethanol and denaturant throughput and just denaturant throughput processed source wide.

The table below shows the source wide emissions calculations. Based on the records provided the facility appears to be well below the permitted limits. Staff was provided with emissions calculations for the time period of January 2023 through July 2024.

Limit	Time Period	Equipment	Highest Calculated Emissions	Month of Highest Calc Emissions
249 TPY	12-month Rolling	Source-Wide	127.63 TPY	Mar-23
199 TPY	12-month Rolling	Source-Wide	126.15 TPY	Nov-23
222 TPY	12-month Rolling	Source-Wide	45.21 TPY	Nov-23
10 TPY	12-month Rolling	Source-Wide	2.37 TPY of acetaldehyde	Dec-23
10 TPY	12-month Rolling	Source-Wide	0.69 TPY of acrolein	Feb-23
25 TPY	12-month Rolling	Source-Wide	3.05 TPY	Nov-23
90 TPY	12-month Rolling	Source-Wide	38.93 TPY	Mar-23
65 TPY	12-month Rolling	Source-Wide	38.93 TPY	Mar-23
60 TPY	12-month Rolling	Source-Wide	12.16 TPY	Jan-23

78 TPY	12-month Rolling	Source-Wide	14.65 TPY	Mar-23

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The table below shows the records for the material throughput limits. Staff was provided with records for the time period of January 2023 through July 2024.

Material	Limit	Time Period	Equipment	Highest Recorded throughput	Month of Highest Recorded Throughput
Total Ethanol and Denaturant Throughput	161 million grains per year	12-month Rolling	Source-Wide	142,199,412 grains per year	Nov-23
Denaturant Throughput	8.5 million gallons per year	12-month Rolling	Source-Wide	6,400,651 gallons per year	Oct-23

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The facility is required to have a source wide Malfunction Abatement Plan (MAP), Odor Management Plan (OMP), and an emergency response plan. Staff was provided with a copy of the plans as a part of the inspection. These plans appeared to discuss and outline necessary requirements in Special Conditions III.1-3.

EU-GRAINRECEIVE:

This emission unit is for Grain receiving. It includes two truck unloading enclosures, each with a capacity of 15,000 bushel/hr, each with one receiving pit located at the grain elevator. The operation is controlled by baghouse C-201.

During the inspection this was under construction. In the first semi annual ROP deviation report the facility reported that there were seven dates in which the receiving pit was operating while the elevator baghouse C-201 was taken out of service due to construction updates on the receiving pit and building. These dates were listed as 5/17/2024, 5/20/2024, 5/21/2024, 6/3/2024, 6/4/2024, 6/5/2024, and 6/6/2024. On these days it was noted that emission unit was operated for a period of 8-hours per day without being controlled by the baghouse. A violation notice was sent to the facility on 9/12/2024. The facility is given a response deadline of 10/3/2024.

The table below shows the records for the material limit for the grain received. Staff was provided with records for the time period of January 2023 through July 2024.

Material	Limit	Time Period	Equipment	Highest Recorded throughput	Month of Highest Recorded Throughput
Grain Received	34 million bushels	12-month Rolling	EUGRAINRECEIVE	23,464,410 bushels	Jan-23

The MAP appears to be included in the source wide MAP. The section of the MAP discusses grain elevators and baghouse operations used to control emissions in the grain receiving.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as dust collector at old grain facility.

EU-INTERNALOP:

This emission unit is for internal operations, which includes storage and internal handling of grain at grain elevator.

The table below shows the records for the material limit for the grain received. Staff was provided with records for the time period of January 2023 through July 2024.

Material	Limit	Time Period	Equipment	Highest Recorded throughput	Month of Highest Recorded Throughput
Grain Handled Internally	55 million bushels	12-month Rolling	EUINTERNALOP	54,123,971 bushels	Mar-23

EU-GRAINDRY:

This emission unit is one 62.1 MMBTU/hr (average) natural gas fired grain dryer (10,000 bushels/hr throughput capacity at 5 points moisture removal), at the grain elevator.

The table below shows the records for the material limit for the grain received. Staff was provided with records for the time period of January 2023 through July 2024.

Material	Limit	Time Period	Equipment	Highest Recorded throughput	Month of Highest Recorded Throughput

Natural Gas	125 million cubic feet	12-month Rolling	EUGRAINDRY	1.03 mmcf	Jan-24
Grain Dried	10 million bushels	12-month Rolling	EUGRAINDRY	6,119,629 bushels	Feb-24

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as the Zimmerman grain dryer.

EU-DAYBIN3

This emission unit is for Corn Surge/Day Bin #3. The special condition for this emission unit is for design parameters. The facility is not allowed to operate EU-DAYBIN3 unless the bin is completely enclosed. Staff observed this during the inspection.

EU-COOLINGDRUM:

The emission unit is for a Cooling Drum, controlled by baghouse C-70A.

The facility has PM10, PM2.5, and VOC emission limits that can only be verified through stack testing. The testing is required to be done every 5 years. The emission unit appeared to be last tested on January 11, 2023. The results for the stack test are listed below.

- Total PM10/PM2.5 - 0.81 lb/hr (limit 2.14 lb/hr)
- Total VOCs* - 11.8 lb/hr (limit 13.6 lb/hr)

*Total VOC by FTIR include acetaldehyde, acetic acid, acrolein, ethanol, ethyl acetate, formaldehyde, formic acid, 2-furaldehyde, and methanol.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as the cooling drum stack.

Andersons does have a 5% Opacity limit for the exhaust on this stack. During the inspection this stack was observed and there were no visible emissions during the inspections.

The facility is required to continuously monitor the differential pressure of baghouse C-70A and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the baghouse. This emission unit has two magnehelic readings and are identified Cooling Drum #1 and #2. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

EU-DDGSLOADOUT:

This emission unit is for the DDGS truck and rail load-out, which includes conveyors and elevators used for transfer and loading operations, controlled by baghouses P-90 and P-91. The DDGS storage is in an enclosed building and not connected to the baghouses.

The facility has PM10 and PM2.5 emission limits that can only be verified through stack testing. The facility is only required to test these limits at the request of the AQD District supervisor. At the time of the inspection the facility does not appear to have been requested to verify these emission limits.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as the DDG Truck L.O. Dust collector and DDG L.O. Dust collector.

Andersons does have a 5% Opacity limit for the exhaust on this stack. During the inspection this stack was observed and there were no visible emissions during the inspections.

The facility is required to continuously monitor the differential pressure of baghouse P-90 and P-91 and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the baghouse. This emission unit has two magnehelic readings and are identified DDG Loadout Filter and DDG Truck Loadout Hood Filter. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

EU-COOLINGTWR and EU-COOLINGTWR2:

Each of these emission unit are 4 cell cooling tower equipped with drift eliminators. The only special condition required for this emission unit is that it is operated in a manner according to the MAP. The MAP appears to include the cooling water.

The previous inspection report indicated that the cooling water is used in a loop at the facility that runs through the system that never touches any product and can be recirculated. It was also indicated that Andersons does onsite water testing for chlorine content in compliance with their NPDES permitting.

EU-WDGS:

This emission unit is for the wet distiller's grains & solubles (WDGS) handling operations. The WDGS is processed through the dryer and stored outside in a contained and covered area. The facility appears to be recording the weight of the material in WDGS. The largest amount that was recorded was 600 tons.

FGCORNBINS:

This flexible group is for the corn storage operations. The emission units include EU-CORNBIN1 and EU-CORNBIN2.

The facility has PM10 and PM2.5 emission limits that can only be verified through stack testing. The facility is only required to test these limits at the request of the AQD District supervisor. At

the time of the inspection the facility does not appear to have been requested to verify these emission limits.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as corn bin 1 and corn bin 2.

Andersons does have a 5% Opacity limit for the exhaust on this stack. During the inspection this stack was observed and there were no visible emissions during the inspections.

The facility is required to continuously monitor the differential pressure of bin vent filters in FGCORNBINS and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the baghouse. This emission unit has three magnehelic readings and are identified as Ethanol silo roof filters #1, #2, and #3. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

FGENCLOSEDCONV:

This flexible group is for the six corn transfer conveyors without emissions control equipment. The emission units included this flexible group are EU-RECEIVINGCONV, EU-BINEMPTCONV1, EU-BINEMPTCONV2, EU-TRANSCONV1, EU-TRANSCONV2, and EU-REDIRECTCONV. The only requirement of this flexible group is that any conveyor in FGENCLOSEDCONV is only operated if the conveyor is enclosed. Staff observed these conveyors throughout the inspection. During the inspection the inspection the conveyors did appear to be enclosed.

FGC-20:

This flexible group is for the corn receiving, storage, and handling operations. All equipment is controlled by baghouse C-20. The emission units included in this flexible group are EU-TRUCKPIT, EU-CORNELEV1, and EU-CORNELEV2.

The facility has PM10 and PM2.5 emission limits that can only be verified through stack testing. The facility is only required to test these limits at the request of the AQD District supervisor. At the time of the inspection the facility does not appear to have been requested to verify these emission limits.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as the Ethanol Grain Receiving Dust Collector.

The facility is required to continuously monitor the differential pressure across the dust collector and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the dust collector. This emission unit has one magnehelic readings and are identified as Ethanol Side Receiving Filter. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

FGC-30:

This flexible group is for the corn scalping, storage, milling, and transfer operations. All equipment is controlled by baghouse C-30. The emission units included in this flexible group are EU-SCALPER1, EU-SCALPER2, EU-DAYBIN1, EU-DAYBIN2, EU-MILL1, EU-MILL2, EU-MILL3, EU-MILL4, and EU-FEED.

The facility has PM10 and PM2.5 emission limits that can only be verified through stack testing. The facility is only required to test these limits at the request of the AQD District supervisor. At the time of the inspection the facility does not appear to have been requested to verify these emission limits.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as Hammermill 1 dust collector.

The facility is required to continuously monitor the differential pressure across the dust collector and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the dust collector. This emission unit has one magnehelic readings and are identified as Side 1 Hammer Mill Air Filter FGC-30. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

FGMILL2:

This flexible group is for corn milling operations installed under PTI No. 144-15C. The emission units are controlled by the milling baghouses C-30A-1, C-30A-2, C-30A-3, and C-30A-4. The emission units included in this flexible group are EU-MILL5, EU-MILL6, EU-MILL7, and EU-MILL8.

The facility has PM10 and PM2.5 emission limits that can only be verified through stack testing. The facility is only required to test these limits at the request of the AQD District supervisor. At the time of the inspection the facility does not appear to have been requested to verify these emission limits.

Special Condition VI.1 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as Hammermill 2 dust collector.

The facility is required to continuously monitor the differential pressure of baghouses C-30A-1, C-30A-2, C-30A-3, and C-30A-4 and record a monthly reading. The facility appears to maintain a daily record of the pressure drop on the baghouse. This emission unit has four magnehelic readings and are identified as Side 2 hammermills #5, #6, #7, and #8. In these records it indicates the date, reading data, and who the data was collected by. If the unit was not operated for the day, it is indicated as such.

During the inspection Staff did take pressure drop readings during the inspection. The pressure drop readings that Staff noted are listed below.

- #5 – 3 inches of H2O
- #6 – 1 inches of H2O
- #7 – 2 inches of H2O

- #8 – 0.5 inches of H2O

Andersons does have a 5% Opacity limit for the exhaust on this stack. During the inspection this stack was observed and there were no visible emissions during the inspections.

FGFERM:

This flexible group is for exhaust from all fermenters and the beer well. The emission units included in this flexible group are EU-BEERWELL, EU-FERMENTER1, EU-FERMENTER2, EU-FERMENTER3, EU-FERMENTER4, EU-FERMENTER5, EU-FERMENTER6, EU-FERMENTER7, EU-FERMENTER8, EU-FERMENTER9, and EU-FERMENTER10.

The facility has VOC and Acetaldehyde emission limits that can only be verified through stack testing. The testing is required to be done every 5 years. The emission unit appeared to be last tested on July 29, 2021. The results for the stack test are listed below.

- Scrubber C40
  - 9.08 pph total VOC (Limit 14.0 pph VOC)
  - 0.01 pph acetaldehyde (Limit 1.3 pph acetaldehyde)
- Scrubber C40A
  - 9.38 pph total VOC (Limit 13.0 pph VOC)
  - 0.18 pph acetaldehyde (Limit 0.93 pph acetaldehyde)

Special condition VI.2 requires that the facility maintain monthly and 12-month rolling calculations of VOC and Acetaldehyde emissions on a monthly basis. The facility appears to be maintaining these records. There is no 12-month rolling emission limit for VOC or Acetaldehyde. Records show that the largest 12-month rolling emissions for C40 are 15.52 TPY VOC and 0.02 TPY of Acetaldehyde. Records show that the largest 12-month rolling emissions for C40A are 44.51 TPY VOC and 0.77 TPY of Acetaldehyde.

Special Condition VI.3 requires that the facility continuously monitor and record the water flow rates and chemical feed rates of Scrubber C-40 and Scrubber C-40A; and the pre-condenser water flow rates as an indicated of proper operation. Andersons is required to record the daily average scrubber waterflow rates, chemical feed rates, and pre-condenser flow rates. During the 2021 Testing it was established that the flowrates for the scrubbers should be the following:

- C-40: 46 GPM with Pre-condenser operating & 64GPM without Pre-condenser operating
- C-40A: 36 GPM with Pre-condenser operating & 64 GPM without Pre-condenser operating

Staff was provided with flowrate data for the scrubbers for the dates 1/3/2024, 1/22/2024, 2/6/2024, 2/23/2024, 3/5/2024, 3/29/2024, 4/20/2024, 5/9/2024, 5/20/2024, 6/20/2024, and 6/17/2024. For each of these dates the pre-condenser appeared to be operating. From Staff Review the facility appeared to maintain these scrubber flowrates as required. It was noted that pre-condenser was in operation and is typically how the scrubbers and pre-condensers operate.

FGPURGE:

This flexible unit is for exhaust from a fermenter during the clean in place and initial filling is not suitable for use at the CO2 recovery facility; therefore, the emissions from fermenter cleaning and filling may be controlled by purge scrubber C-120, which vents to atmosphere. Interlocks ensure that only one fermenter vents to the purge scrubber at a time. Emission units that are

included in this flexible group are EU-FERMENTER1, EU-FERMENTER2, EU-FERMENTER3, EU-FERMENTER4, EU-FERMENTER5, EU-FERMENTER6, EU-FERMENTER7, EU-FERMENTER8, EU-FERMENTER9, and EU-FERMENTER10.

The facility is required to monitor the scrubber C-120 liquid flowrate. Staff was provided with scrubber data for the dates 1/3/2024, 1/22/2024, 2/6/2024, 2/23/2024, 3/5/2024, 3/29/2024, 4/20/2024, 5/9/2024, 5/20/2024, 6/20/2024, and 6/17/2024.

Special condition VI.2 to log and record the amount of hours that emissions are vented through purge scrubber C-120. The facility provided these records for the time period of January 2023 through July 2024. During this time period the largest 12-month rolling hours where emissions were vented through purge scrubber were 4,231 hours. This is below the permitted 5,000 hour limit in the permit.

FGOXID:

This flexible group is for all equipment venting to thermal oxidizer C-10. Emission units included in this flexible group are EU-RECTIFIER, EU-SIDESTRIPPER, EU-BEERCOLUMN, EU-YEASTTANK, EU-YEASTTANK2, EU-DRYER1, EU-DRYER2, EU-TO&WHRB, EU-CENTRIFUGE1, EU-CENTRIFUGE2, EU-CENTRIFUGE3, EU-CENTRIFUGE4, EU-190PROOFCOND, and EU-200PROOFCOND.

The facility has PM10, PM2.5, VOC, NOx, CO, and Acetaldehyde emission limits that can only be verified through stack testing. The testing is required to be done every 5 years. The emission unit appeared to be last tested on February 16, 2021. The results for the stack test are listed below.

- VOC Limit: 4.2 pph Result: 1.8pph (42.7%)
- NOx Limit: 27.5 pph Result: 9.26 pph (33.7%)
- CO Limit: 21.4 pph Result: 2.5 pph (11.5%)
- PM10/PM2.5 Limit: 3.1 pph Result: 2.08 pph (67.1%)
- Acetaldehyde Limit: 0.35 pph Result: 0.1 pph (29.3%)

Special Condition VI.1 requires that the facility monitor and record on a continuous basis the combustion chamber temperature of the thermal oxidizer C-10. Continuous basis is defined in the condition as at least once every 15 minutes. In addition the facility is required to maintain a 1400 °F minimum combustion temperature. Staff was provided with combustion temperature data for the following dates: 1/3/2024, 1/22/2024, 2/6/2024, 2/23/2024, 3/5/2024, 3/29/2024, 4/20/2024, 5/9/2024, 5/20/2024, 6/20/2024, and 6/17/2024. During these dates the facility appeared to maintain a minimum combustion temperature above the required 1400 °F.

Special Condition VI.2 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as T.O Stack.

The facility is required to monitor NOx emissions on a continuous basis using a CEMS. The use of the CEMS shows compliance with the NOx pph 24-hour rolling average and NOx lb/MMBTU 30 day rolling average. Staff was provide with CEMS data for the time period of January 2023 through August 2024. In this time period the facility appeared to be meeting the 27.5 pph 24-hour rolling average emission limit and the 0.1 lb/MMBTU 30-day rolling average emission limit.

Special Condition VI. 12 - 15 requires the facility to maintain monthly and 12-month rolling calculations of PM10, PM2.5, VOC, and CO emissions on a monthly basis. There is no limit associated with these 12-month rolling emission calculations. Andersons does appear to maintain them and use them for the source wide emissions calculations.

FGOXID2:

The flexible group is for all equipment venting to regenerative thermal oxidizer C-10A. Emission units that are included in this flexible group are EU-RECTIFIER2, EU-SIDESTRIPPER2, EU-BEERCOLUMN2, EU-DRYER3, EU-DRYER4, EU-CENTRIFUGE5, EU-CENTRIFUGE6, EU-CENTRIFUGE7, EU-CENTRIFUGE8, EU-190PROOFCOND2, and EU-RTO2.

The facility has PM10, PM2.5, VOC, NOx, CO, Acetaldehyde, and SO2 emission limits that can only be verified through stack testing. The testing is required to be done every 5 years. The emission unit appeared to be last tested on December 12, 2022. The results for the stack test are listed below.

- VOC Limit: 4.5 pph Result: <4.5 pph
- NOx Limit: 10.8 pph Result: 8.7 pph
- CO Limit: 9.1 pph Result: 6.0 pph
- PM10/PM2.5 Limit: 5.01 pph Result: 3.55 pph
- Acetaldehyde Limit: 0.33 pph Result: 0.27 pph
- SO2 Limit: 10.8 pph Result: 1.9 pph
- Minimum Destruction Efficiency: 98% Result: 98%

Special Condition VI.2 requires the facility to conduct monthly one-minute visible emissions observations. Staff was provided with monthly visible observation logs that indicated the date, time, observer and indication if visible emissions were observed. The stack observation appears to be referenced as R.T.O Stack.

Special Condition VI.1 requires that the facility monitor and record on a continuous basis the combustion chamber temperature of the thermal oxidizer C-10. Continuous basis is defined in the condition as at least once every 15 minutes. In addition the facility is required to maintain a 1400 °F minimum combustion temperature. Staff was provided with combustion temperature data for the following dates: 1/3/2024, 1/22/2024, 2/6/2024, 2/23/2024, 3/5/2024, 3/29/2024, 4/20/2024, 5/9/2024, 5/20/2024, 6/20/2024, and 6/17/2024. On 2/6/2024 the combustion temperature data appeared to show the combustion temperature dipping below the minimum required 1400 °F for a short period of time. Other dates reviewed appeared to show that the minimum combustion temperature of the RTO was maintained as required. Due to the short period of time that the RTO was not maintaining the required combustion temperature Staff does not think a violation notice is necessary for this issue at this time. If more instances occur in the future a violation may be appropriate at that time.

Special Condition VI. 7 - 9 requires the facility to maintain monthly and 12-month rolling calculations of PM10, PM2.5, SO2, NOx, VOC, and CO emissions on a monthly basis. There is no limit associated with these 12-month rolling emission calculations. Andersons does appear to maintain them and use them for the source wide emissions calculations.

FGLOADOUT:

This flexible group is for the two denatured ethanol truck load-outs and one denatured ethanol rail load-out. Emission units that are included in this flexible group are EU-LOADOUTRL, EU-LOADOUTTRK, and EU-LOADOUTTRK2.

The only requirements of this flexible group are that EU-LOADOUTRL and EULOADOUTTRK are installed, maintained, and operated with ethanol load-out flare P-50. EU-LOADOUTTRK2 is required to be installed maintained and operated with ethanol load-out flare P-50_A. These both appeared to covered in the MAP.

FGCHP:

This flexible group is for the combined heat and power (CHP) system to generate electricity and steam for the facility. The CHP system consist of a combustion turbine and a duct burner with a heat recovery steam generator (HRSG) to generate steam from the heat provided by the turbine exhaust and/or the heat provided by the duct burner. The CHP system can operate in three modes: turbine only, turbine and duct burner, and duct burner only.

The facility has NOx, CO, PM10, PM2.5 and VOC emission limits that can only be verified through stack testing. The testing is required to be done every 5 years. The emission unit appeared to be last tested on May 28, 2024. The results for the stack test are listed below.

- PM Emission Rate: 0.6757 lb/hr (Limit: 2.9 lb/hr)
- Nitrogen Oxides Emission Rate: 7.923 lb/hr (limit: 14.0 lb/hr)
- Nitrogen Oxides Emission Rate at 15% O2: 9.833 ppm (limit: 42 ppm)
- Carbon Monoxide Emission Rate: 1.45 lb/hr (Limit: 42.8 lb/hr)
- Volatile Organic Compounds as Methane Emission Rate: 0.073 lb/hr (Limit: 3.2 lb/hr)

The facility calculating VOC, NOx, PM, and SO2 emissions from this flexible group. These calculations are used in the source wide calculations to show compliance. This flexible group does not have its own monthly or 12-month rolling emission limit that is required to demonstrate compliance. All emission limits appear to shown through stack testing.

FGNSPSVV and FGNSPSVVa:

These flexible groups are for all pumps, valves, and pressure relief devices in light/heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open-ended valve or line and all associated closed vent systems and control devices. An emission unit that commenced operation after January 5, 1981, and on or before November 7, 2006 is subject to the VV regulation, while an emission unit that was constructed, reconstructed, or modified after November 7, 2006 is subject to VVa regulations.

. Emission units are included in this flexible group are EU-190PROOFCOND, EU-200PROOFCOND, EU-BEERCOLUMN, EU-BEERWELL, EU-CENTRIFUGE1, EU-CENTRIFUGE2, EU-CENTRIFUGE3, EU-CENTRIFUGE4, EU-FERMENTER1, EU-FERMENTER2, EU-FERMENTER3, EU-FERMENTER6, EU-FERMENTER7, EU-RECTIFIER, EU-SIDESTRIPPER, EU-YEASTTANK, and EU-YEASTTANK2.

As noted in the previous inspection report the facility has 75 pressure relief valves (PRVs) and readings are taken off each vessel. There are 13 PRVs in distillation. The readings taken off the distillation vessels are monitored by the minute. If the PRV readers failed, the plaint is designed

to shut down. There are sealed roofs with no venting. The design of the floating roof prevents over fuming.

The VVa tanks are subject to leak detection and repair (LDAR) procedures. The facility appears to be conducting semi-annual monitoring reports. On February 7, 2024 the facility appeared to detect a leak in which it appeared to be repaired the same day.

This flexible group is for all pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open-ended valve or line and all associated closed vent systems and control devices for which construction, reconstruction, or modification commenced after November 7, 2006. Emission units that are included in this flexible group are EU-190PROOFCOND2, EU-BEERCOLUMN2, EU-CENTRIFUGE, EU-CENTRIFUGE6, EU-CENTRIFUGE7, EU-CENTRIFUGE8, EU-FERMENTER4, EU-FERMENTER5, EU-FERMENTER8, EU-FERMENTER9, EU-FERMENTER10, EU-RECTIFIER2, and EU-SIDESTRIPPER2.

EU-DIESELPUMP, EU-DIESELPUMP2, and FGFIREPUMP:

EU-DIESELPUMP and FGFIREPUMP are for a 300 HP diesel fired emergency fire water pump installed August 2006. This engine appears to be subject to both 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart IIII. EU-DIESELPUMP is the only emission unit subject to the flexible group.

EU-DIESELPUMP2 is a 332-HP diesel fired emergency fire water pump. This pump was previously permitted under PTI 144-15C. This engine appears to be subject to both 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart IIII. Since these engines are similar in size and subject to the same regulations they have similar requirements.

The facility provided documentation showing that the diesel fuel that is burned in the engines have a maximum sulfur content of 15 ppm. In addition to the sulfur content documentation the facility provided documentation of the emission certification of the engines.

The facility is maintaining run time hours for the two engines. Staff was provided with records from 2023. Records showed that EUDIESELPUMP operated 17.3 hours for testing and 4.1 hours for non-emergency hours usage. Records showed that EUDIESELPUMP2 operated 12.1 hours for testing and maintenance use and 1.5 hours for non-emergency hours usage.

Conclusion:

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with MI-ROP-B8570-2023a, except for the deviations that were already sent a violation notice for on 9/12/2024. Staff stated to Mr. Dankert that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 4:00 PM.-CJY

NAME Cody Gazzia DATE 9/27/2024 SUPERVISOR Monica Brothers