

OECA – Air Enforcement Division INSPECTION REPORT

Inspection Date(s):	December 19, 2024	
Media Program:	Air	
Regulatory Program(s)	CAA, Title V, NSPS	
Company Name:	Enterprise Midland Basin Midstream LLC	
Facility Name:	Newberry Gas Plant	
Facility Physical Location:	31.852054, -101.775121	
(city, state, zip code)	Midland, TX 79706	
Mailing address:	PO Box 4324	
(city, state, zip code)	Houston, TX 77210	
County/Parish:	Midland County	
Facility Phone Number	713-381-6595	
Facility Contacts:	Jon E. Fields Robert Dunaway jefields@eprod.com ; (713)-381-6684 rhunaway@eprod.com ; (575)-307-9378	Director, Field Environmental Environmental Manager
FRS Number:		
Identification/Permit Number:	Permit 03959, RN109272526	
Media Identifier Number:		
NAICS:	211111 – Crude Petroleum and Natural Gas Extraction 211112 – Natural Gas Liquid Extraction	
SIC:	1321 – Natural Gas Liquids	
Personnel participating in inspection:		
Patrick Foley	EPA AED	Senior Environmental Engineer
Hans Buenning	EPA NEIC	Environmental Engineer
Cindy Schafer	EPA NEIC	Environmental Engineer
Prince Nfodzo	EPA Region 6 ECAD	Environmental Engineer
Dan Roper	ERG	EPA Contractor
Brian Schath	ERG	EPA Contractor
Maria Lerma	Enterprise	Environmental Supervisor
Robert Dunaway	Enterprise	Environmental Manager
Christopher Putzel	Enterprise	Plant Superintendent
Nathan Krull	Enterprise	Regional Manager
Alejandro Franco	Enterprise	Plant Staff
EPA Lead Inspector Signature/Date	<i>Patrick Foley</i> Patrick Foley	07/02/2025 Date
Supervisor Signature/Date	 Gregory Fried	 Date

Section I – INTRODUCTION

Purpose of Inspection

EPA inspectors Patrick Foley (Air Enforcement Division), Hans Buenning (National Enforcement Investigations Center), Cynthia Schafer (National Enforcement Investigations Center), and Prince Nfodzo (Region 6), along with Eastern Research Group, Inc. (ERG) contractors Dan Roper and Brian Schath, arrived at approximately 12:45 PM at the Spraberry Gas Plant office as directed by Enterprise Products Operating LLC Field Environmental Director, Jon E. Fields. Robert Dunaway received the inspectors upon arrival. The inspectors signed into the facility and met with Enterprise staff members Robert Dunaway, Maria Lerma, Christopher Putzel, and Nathan Krull. Patrick Foley informed Enterprise staff that the inspectors would be conducting a focused Clean Air Act (CAA) inspection of the Newberry Gas Plant flare systems utilizing the Mantis Lite and an Optical Gas Imaging (OGI) camera (model FLIR Gx320) and tanks using OGI.

Facility Description

The inspectors inquired about the operations and equipment at the Spraberry and Newberry Gas Plants. Enterprise staff reported that the Spraberry Gas Plant had been out of operation since 2018, with its flares air gapped. The Newberry Gas Plant was in operation and had two unassisted flares (Flare 1 and Flare 2). Both receive a continuous stream of acid gas from corresponding process trains (Train 1 and Train 2). Both receive acid gas from separate amine glycol systems, with Train 1 handling the main flare gas stream, startup, shutdown, and malfunction (SSM) and emergency flare gas streams for Train 1 processes, while Train 2 handles the same streams for Train 2 processes and also received gas from a dehydration (DEHY) system.

Enterprise staff identified four condensate storage tanks including two 10,000-barrel tanks (2350A and 2350B), and two 750-barrel tanks (235A and 235B). It was noted that the smaller tanks were no longer in service. Inspectors were also informed of a Nitrogen Removal Unit (NRU) and tank truck loading operations.

Section II – OBSERVATIONS

The meeting concluded at 1:08PM, after which all personnel departed the Spraberry office and regrouped at the Newberry Gas Plant. A safety briefing was held at 1:12PM followed by the onsite inspection. Inspectors observed the flares from a northwest vantage point facing southeast. Both flares were operating. The equipment was restarted at 1:34 PM, and measurements concluded at 2:07 PM. Measurements of Flare 2 commenced at 2:12 PM and concluded at 2:43 PM. OGI was conducted throughout the inspection. Initial OGI video of the flares was taken from the Mantis Lite observation point (FLIR 271, 272, and 273) that detected significant trailing organic vapor plumes. Inspectors Foley, Roper, and Schath, accompanied by Enterprise staff, proceeded on a facility tour of the tanks and loading area.

Upon arriving at Tanks 2350A and 2350B, the inspectors noted three large metal containers with extensive hosing leading to the top of Tank 2350B. Enterprise staff explained that these containers constituted a carbon bed system for capturing organic vapor emissions. OGI observations indicated no emissions from the carbon bed system outlet (FLIR 280, 284). Further investigation with OGI detected organic vapor emissions from the top of Tank 2350B, though the source was not definitively identifiable from ground level (FLIR 274, 275). Inspectors Roper and Schath, along with Alejandro Franco operating a FLIR camera on behalf of Enterprise, ascended Tank 2350A for closer examination. While approaching the stairs, they passed the open outlet of Tank 2350A and observed that it had been emptied. At the top of Tank 2350A, OGI revealed continuous organic vapor emissions from three of the five eyebrow vents on Tank 2350B (FLIR 276).

During this time, inspector Foley discussed current facility operations with Enterprise staff Nathan Krull and Maria Lerma. The Enterprise staff disclosed that the internal floating roofs (IFRs) of both tanks had sunk, prompting the removal of Tank 2350A from operation and the installation of a carbon bed system on Tank 2350B. Facility staff also stated that the eyebrow vents had been sealed with tape to prevent emissions release. After descending from Tank 2350A, OGI observations of Tanks 235A and 235B (FLIR 277, 278, 279) showed that both contained liquid, particularly Tank 235A, with organic vapor emissions detected from a thief hatch on its roof. Facility staff were unaware that these tanks were still in service and held condensate.

The inspection continued to the loading area, where OGI identified organic vapor emissions from piping on top of the Slop Tank (FLIR 281) and from hosing equipment placed beneath a truck during loading operations (FLIR 282, 283). Enterprise staff explained that the hosing was used for vapor balancing during the loading process. The hosing carrying organic vapors from the truck was lying on the ground and not connected to any facility equipment and vented directly to the atmosphere during the observed truck loading event. The inspectors regrouped at the Mantis Lite observation point near the end of the observation period of Flare 2. During this time, Chris Putzel increased the flow of residue gas to Flare 1, which was measured at approximately 240 BTU/scf by the Mantis Lite.

All personnel proceeded to the tanks for further observation of the carbon bed system and organic vapor emissions from Tank 2350B. Inspectors Buenning, Schafer, and Nfodzo ascended Tank 2350A with the FLIR camera to document findings (FLIR 285). Inspectors then requested detailed information from facility staff regarding tank conditions. Chris Putzel provided most of the information, explaining that the IFRs had failed multiple times since December 2021, with the most recent failure occurring in August 2024. He stated that the facility had recently received approval to begin repairs. The failures were attributed to a change in buoyancy of Enterprise's stored product, which exceeded the IFRs' operational design limits at a specific gravity of approximately 0.75. Facility staff identified this as the root cause of all previous IFR failures.

CLOSING CONFERENCE

Inspector Foley led a closing conference, and the inspectors departed the facility at 3:30PM, requesting that Enterprise provide reports and records related to the tank failures. Enterprise requested, and EPA agreed, that EPA would submit a request for the records by email at a later date.

SECTION III – FOLLOW UP

Documentation requested from Enterprise included records pertaining to the failure of the IFRs, operation and maintenance of flares, and general facility documents including the PFDs and P&IDs, site plan, amongst others.

Section IV – AREAS OF CONCERN

AOC 1: Tanks 2350A and 2350B Use of Floating Roof to Comply with NSPS Subpart Kb Control Requirement

Tanks 2350A and 2350B (TK-3 and TK-4 in the Title 5 permit) are storage vessels that were constructed on or about 2019, are 420,000 gallons in volumetric capacity, and store volatile organic liquid with a maximum TVP >3.5 kPa (0.5 psia). See page 1-2 of Appendix C “TCEQ Non-Rule Standard Permit Registration” which is the permit application for construction of the facility. NSPS subpart Kb is specified as applicable to Tanks 2350A and 2350B in the Title V permit. 40 CFR § 60.112b(a) requires an external floating roof, internal floating roof, or a closed vent system and control device achieving 95% control. 40 CFR 60.112b(b) requires that each storage vessel with a design capacity greater than or equal to 75 m³ (19,813 gallons) which contains a volatile organic liquid that, as stored, has a maximum true vapor pressure (TVP) greater than or equal to 76.6 kPa (11.1 psia) shall equip each storage vessel with a closed vent system and control device as specified in § 60.112b(a)(3) (or an equivalent system approved pursuant to § 60.114b). Tanks 2350A and 2350B have used internal floating roof controls to comply since original construction until the floating roofs sank, as described in AOC 1A below. Based on data provided in the permit application, Tanks 2350A and 2350B appear to hold condensate with a TVP>11.1 psia. Page 122 of the pdf of Appendix C has a “Certificate of Analysis” (COA) for a composition of “Stabilized Condensate” which is what is stored in Tanks 2350A and 2350B. Tank 2350A has never had a closed vent system and control device since its original construction. The internal floating roof on Tank 2350A failed on or before September 24, 2024, and Tank 2350A was taken out of service at some unspecified point after that. Tank 2350B has not had a closed vent system designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions and a control device from original construction until at least March 10, 2025.

Applicable regulations: 40 CFR Part 60 Subpart Kb and Title V Permit

AOC 1A: Tank 2350B Vapor Emission Leak and NSPS Subpart Kb Control Requirement

40 CFR § 60.112b(a) requires an external floating roof, internal floating roof, or a closed vent system and control device achieving 95% control. 40 CFR § 60.112b(a)(3) requires that closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections. While designed with an internal floating roof, the Tank 2350B floating roof failed and had sunk on or before October 4, 2024. See response 10 in Appendix B. Enterprise had neither a

floating roof, nor a closed vent system installed on Tank 2350B on October 4, 2024. Enterprise made an effort to install a closed vent system and control device when it enclosed the tank and routed emissions through dual carbon adsorption beds that were installed on November 22, 2024. See response 11 of Appendix B. However, during the inspection, the perimeter eyebrow vents were leaking continuously. See Appendix A FLIR Video Log File IDs 274-276, 280, 284 and 285. The FLIR videos indicate both visual leaks and leaks in excess of 500 ppm based on the lower visual detection limit of the FLIR. Enterprise made efforts at fixing these leaks observed on the inspection on January 6, January 16, February 11, February 26, and March 10, 2025. See response 16 of Appendix B. The FLIR videos and LEL measurements provided by Enterprise demonstrate that the efforts to seal the tank to ensure collection of all vapors and gases discharged from the tank in January and February failed. See responses 12 and 13 of Appendix B. The March 28, 2025, videos indicate no presence of leaks from the perimeter eyebrow vents. Enterprise had no floating roof and had visual leaks and emissions in excess of 500 ppmv, from its closed vent system on Tank 2350B from at least October 4, 2024, through at least March 10, 2025.

Applicable regulations: 40 CFR Part 60 Subpart Kb and Title V Permit.

AOC 1B: VOC Emissions from Tanks 2350A and 2350B and 30 TAC § 106.352 - Oil and Gas Handling and Production Facilities Non-Rule Standard Permit Registration Requirements

In September 2019, a Non-Rule Standard Permit Registration was submitted for authorization of construction of the Newberry Gas Plant included as Appendix C. On September 24, 2019, TCEQ authorized the registration in a letter included as Appendix C2. In section 5.1(a) on page 5-1, the owner at the time, Navitas, requested applicability of specific requirements not otherwise applicable: "... Navitas is voluntarily registering the Facility under the new requirements in (a) – (k). The Facility is not located in the Barnett Shale Area." The registration further states:

"(g) Any claim under this standard permit must comply with all applicable requirements of 30 TAC §116.610; §116.611, Registration to Use a Standard Permit; §116.614, Standard Permit Fees; and §116.615, General Conditions. This standard permit supersedes: the TCEQ Non-Rule Standard Permit Registration Newberry Gas Plant September 2019 5-5 notification requirements of 30 TAC §116.615, General Conditions; and the emission limitations of 30 TAC 116.610(a)(1), Applicability. The Facility will comply with all applicable requirements of §116.610, §116.611, §116.614, and §116.615.

(h) Total maximum estimated registered or certified emissions shall meet the most stringent limits in this standard permit. All emissions estimates must be based on representative worst-case operations and planned MSS activities. The emissions estimated represented in this standard permit reflect the worse-case operations for the Facility."

30 TAC §116.615(2) states:

"(2) Standard permit representations. All representations with regard to construction plans, operating procedures, pollution control methods, and maximum emission rates in any

registration for a standard permit become conditions upon which the facility or changes thereto, must be constructed and operated. It is unlawful for any person to vary from such representations if the change will affect that person's right to claim a standard permit under this section."

In Appendix A of Appendix C, on page A-2, Table 1, the potential emissions from Tanks 2350A and 2350B are stated as 0.3 pounds per hour and 1.3 tons per year. The Tanks 4.0.9d emission model runs are in Appendix B of Appendix C, described as Newberry Tanks 3-4. The model runs do not account for propane and butane flash emissions, and assume a Reid Vapor Pressure (RVP) of 9 psia. If flash emissions from propane and butane are accounted for, and if a TVP is calculated using the composition described in the COA for the stabilized condensate and that TVP is used in a Tanks 4.0.9d model run, the hourly and annual emissions predicted will likely exceed 0.3 pounds per hour and 1.3 tons per year. If Tanks 2350A and 2350B have stored stabilized condensate with the composition described in the COA since original construction, it is likely that hourly and annual emissions were above these limits since then.

In Response 15 of Appendix B, Enterprise submitted emission estimates from Tanks 2350A and 2350B during the floating roof failures. According to these calculations, Tank 2350A emitted VOC at a rate of 1041 pounds per day which is the equivalent of 43.4 pounds of VOC per hour from 9/23/2024 to 10/15/2024 and at a rate of 220.97 pounds of VOC per day which is the equivalent of 9.2 pounds of VOC per hour from 10/15/2024 to 10/30/2024. For the period from 9/23/2024 to 10/30/2024, using these estimated daily emissions, Enterprise estimates that Tank 2350A emitted 13.2 tons of VOC. Using the calculations provided by Enterprise in Response 15 of Appendix B, Tank 2350B emitted at a rate of 1041 pounds of VOC per day which is the equivalent of 43.4 pounds of VOC per hour from 9/14/2024 to 10/30/2024. For the period from 9/14/2024 to 10/30/2024, using these estimated daily emissions, Enterprise estimates that Tank 2350B emitted 24.5 tons of VOC.

AOC 2: Vapor Emission Leaks from Tanks 235A and 235B and NSPS Subpart Kb Control Requirements

Tanks 235A and 235B (TK-1 and TK-2 in the Title 5 permit) are storage vessels that were constructed on or about 2019, are 30,000 gallons in volumetric capacity, and store volatile organic liquid with a maximum TVP >3.5 kPa (0.5 psia). See page 1-2 of Appendix C. The Title V permit specifies NSPS subpart Kb as applicable to Tanks 235A and 235B. 40 CFR § 60.112b(a) requires an external floating roof, internal floating roof, or a closed vent system and control device achieving 95% control. 40 CFR § 60.112b(a)(3) requires that closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections. Tanks 235A and 235B have closed vent systems installed and collected vapors are routed to a thermal oxidizer for combustion and control. See responses 18 and 19 of Appendix B. Continuous emission releases were observed from Tanks 235A and 235B during the inspection, likely from manways, thief hatches and/or pressure relief devices on the roofs of the tanks. See Appendix A FLIR Video Log File IDs 277-279. The FLIR videos indicate both visual leaks and that emissions exceed 500 ppmv from a closed vent system, based on the lower visual detection limit of a FLIR. Enterprise made no documented efforts at fixing

these leaks observed on the inspection through the date of submittal of inspection follow-up information. See response 22 of Appendix B. Tanks 235A and 235B contain condensate but have not added or removed condensate from 7/1/2024 through 12/31/2024. See response 17 of Appendix B.

Applicable regulations: 40 CFR Part 60 Subpart Kb and Title V Permit.

AOC 2A: VOC Emissions from Tanks 235A and 235B and 30 TAC § 106.352 - Oil and Gas Handling and Production Facilities Non-Rule Standard Permit Registration Requirements

In Appendix A of Appendix C to this inspection report, on page A-2, Table 1, the potential emissions from each of Tanks 235A and 235B are stated as 0.04 pounds of VOC per hour and 0.18 tons of VOC per year after 98% control. The Tanks 4.0.9d emission model runs are in Appendix B of Appendix C, described as Newberry Tanks 1-2. The model runs do not account for flash emissions of propane and butane, and assume an RVP of 9 psia. If flash emissions of propane and butane are accounted for, and if a TVP is calculated using the composition described in the COA for the stabilized condensate and that TVP is used in a Tanks 4.0.9d model run, the hourly and annual emissions predicted will likely exceed 0.04 pounds per hour VOC and 0.18 tons per year VOC. If Tanks 235A and 235B have stored stabilized condensate with the composition described in the COA for the stabilized condensate since original construction, it is likely hourly and annual emissions of VOC have exceeded these limits since then.

AOC 2B: FLIR Videos of Leaks from Tanks 235A and 235B and Standard Permit Tanks Requirements

Requirement (e)(6)(D) of the Standard Permit at Appendix C2 states:

“(D) Tank hatches, not designed to be completely sealed, shall remain closed (but not completely sealed in order to maintain safe design functionality) except for sampling, gauging, loading, unloading, or planned maintenance activities.”

Continuous emission releases were observed from Tanks 235A and 235B during the inspection, likely from manways, thief hatches and/or pressure release devices on the roofs of the tanks, indicating that the hatches may not have been fully closed. See Appendix A FLIR Video Log File IDs 277-279.

AOC 3: Vapor Emission Leaks from Slop Tank and NSPS Subpart OOOOa Control Requirements

The Slop Tank (TK-5 in the Title 5 permit) is a storage vessel that was constructed on or about 2019, is 8820 gallons in volumetric capacity, and stores volatile organic liquid with a maximum TVP >3.5 kPa (0.5 psia). See page 1-2 of Appendix C. The Slop Tank is controlled by a closed vent system that routes emissions to a thermal oxidizer. See Responses 18 and 19 to Appendix B. The Slop Tank is described as not subject to the NSPS subpart Kb regulation in the Title 5 permit. The Slop Tank is potentially subject to NSPS subpart OOOOa based on its size, date of construction and material stored. A single storage vessel that commenced construction, reconstruction, or modification after September 18, 2015 and on or before November 16, 2020 is a storage vessel affected facility if its potential for VOC emissions is equal to 6 tons per year or more as determined in accordance with the applicable regulatory provisions. The Non-Rule Standard Permit Registration (Appendix C) at page 144 of the pdf, provides a Tanks 4.0.9d model run that predicts emissions of 13,270 pounds of VOC per year or 6.6 tons of VOC per year, prior

to control, which is greater than 6 tons per year. This Tanks model analysis uses an RVP of 9. If the slop oil contains a condensate layer similar to what is stored in Tanks 2350A and 2350B, the RVP is likely much higher and therefore the predicted uncontrolled emissions would be much higher as well.

NSPS subpart OOOOa exempts tanks with potential emissions of less than 6 tons per year of VOC from the control requirements of subpart OOOOa. The determination of potential emissions may consider a legally and practicably enforceable limit. See 40 CFR § 60.5365a(e)(1). In Appendix A of Appendix C, on page A-2, Table 1, the potential emissions from TK-5 are stated as 0.03 pounds per hour and 0.13 tons of VOC per year. If the Non-Rule Standard Permit Registration (Appendix C) and the Title 5 permit (Appendix D) do not contain provisions establishing legally and practically enforceable limits that reduce the tanks potential emissions below 6 tpy, TK-5 may be required to comply with NSPS Subpart OOOOa control requirements. 40 CFR § 60.5395a(a)(2) allows compliance through use of the thermal oxidizer. 40 CFR § 60.5395a(b)(1) requires a cover and closed vent system meeting specific design and operational requirements to prevent emissions, and a control device meeting 95% control. 40 CFR § 60.5411a requires that the cover of the tank shall form a continuous impermeable barrier, that each cover opening be in a closed and sealed position, and that the thief hatch be equipped, maintained and operated to ensure that the lid remains seated and sealed under normal operating conditions. The Slop Tank has a closed vent system installed and collected vapors are routed to a thermal oxidizer for combustion and control. See responses 18 and 19 of Appendix B. Continuous emission releases were observed from the roof of the Slop Tank during the inspection, likely from a pressure release device (the thief hatch) on the roof of the tank. See Appendix A FLIR Video Log File ID 281. Based on the significant continuous release observed in the FLIR video, it appears there is an opening in the cover that is not maintained in a sealed position. Enterprise made no documented efforts at fixing the observed emissions on the inspection through the date of submittal of inspection follow-up information. See response 22 of Appendix B. The Slop Tank contains slop oil and water and was in daily use with a total of 60,650 barrels removed by truck from 7/1/2024 through 12/31/2024. See response 17 of Appendix B.

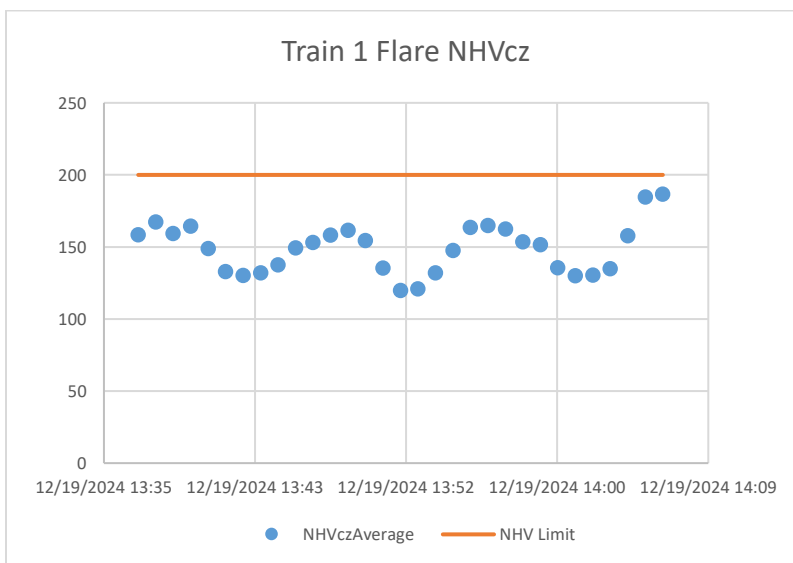
Applicable regulations: 40 CFR Part 60 Subpart OOOOa and Title V Permit.

AOC 3A: VOC Emissions from the Slop Tank and 30 TAC § 106.352 - Oil and Gas Handling and Production Facilities Non-Rule Standard Permit Registration Requirements

In Appendix A of Appendix C to this inspection report, on page A-2, Table 1, the potential emissions from the Slop Tank are stated as 0.03 pounds of VOC per hour and 0.13 tons of VOC per year after 98% control. The Tanks 4.0.9d emission model run is in Appendix B of Appendix C, described as Newberry Tank 5. The model run assumes an RVP of 9 psia, resulting in a model estimated TVP of 5.1 psia. The TVP is likely higher if the composition of the stabilized condensate stored in Tanks 235A and 235B is used and the hourly and annual emissions predicted will likely exceed 0.03 pounds of VOC per hour and 0.13 tons of VOC per year.

AOC 4: Low NHV in Gas Combusted in Trains 1 and 2 Acid Gas Flares and 40 CFR § 60.5412a(d)(3) and 40 CFR §60.18(c)(3)(ii)

40 CFR § 60.5380a(a-d) and § 60.5415a(b)(2)(vii) require compliance with 40 CFR § 60.18(b-f) for flares used as control devices. 40 CFR § 60.5400a requires compliance with 40 CFR §§ 60.482-1a(a), (b), (d), and (e), 60.482-2a, and 60.482-4a through 60.482-11a, including 40 CFR 60.482-10a that, for flares used as control devices, requires compliance with 40 CFR 60.18(b-f). The Title 5 Permit (Appendix D) in the Applicable Requirements Summary, states that 40 CFR § 60.18(c)(3)(ii) is applicable to Trains 1 and 2 Acid Gas Flares. 40 CFR § 60.18(c)(3)(ii) requires that the gas combusted in such unassisted flares be 200 BTU/scf or greater. Enterprise has centrifugal compressor and pneumatic pump seals and other equipment controlled by closed vent systems that can route to the Trains 1 and 2 Acid Gas Flares for control of VOC emissions. Trains 1 and 2 Acid Gas Flares are unassisted flares. FLIR video IDs 271 through 273 show infrared images of significant organic plumes trailing from the combustion zones from the Train 1 and 2 Flares (shorter Train 1 Flare on left and taller Train 2 Flare on right), indicating poor combustion. The Mantis Lite measured NHVcz values significantly below 200 BTU/scf as indicated by the graph below:



During the observation period for Train 1 Flare, the measured NHVcz remained below the 200 BTU/scf limit. Sampling data submitted to EPA by Enterprise after the inspection in Response 8 of Appendix B, indicate that two out of five samples for Train 2 Acid Gas Flare had a Gross Calorific Value (GCV) at or below 100 BTU/scf, which will likely result in an NHV for these two samples well below the 200 BTU/scf limit.

AOC 4A: VOC Emissions from Trains 1 and 2 Main and Acid Gas Flares and 30 TAC § 106.352 - Oil and Gas Handling and Production Facilities Non-Rule Standard Permit Registration Requirements

In Appendix A of Appendix C to this inspection report, on page A-21, Table 22, the potential emissions from the Train 1 Main and Acid Gas Flares are stated as 3.61 pounds of VOC per hour and 15.79 tons of VOC per year and on page A-22, Table 23, the potential emissions from Train 2 Main and Acid Gas flare

are stated as 5.34 pounds of VOC per hour and 23.41 tons of VOC per year after 98% control assumed for the flares. Based on flare header composition data and flare flow rates provided by Enterprise, hourly and annual VOC emissions likely exceed these limits.

AOC 5: Very High Exit Velocities for Trains 1 and 2 Main and Acid Gas Flares and 40 CFR § 60.5412a(d)(3) and 40 CFR §60.18(c)(4)(i)

40 CFR § 60.5380a(a-d) and § 60.5415a(b)(2)(vii) require compliance with 40 CFR § 60.18(b-f) for flares used as control devices. 40 CFR § 60.5400a requires compliance with 40 CFR §§ 60.482-1a(a), (b), (d), and (e), 60.482-2a, and 60.482-4a through 60.482-11a, including 40 CFR 60.482-10a that, for flares used as control devices, requires compliance with 40 CFR 60.18(b-f). The Title 5 Permit (Appendix D) in the Applicable Requirements Summary, states that 40 CFR § 60.18(c)(4)(i) is applicable to Trains 1 and 2 Main and Acid Gas Flares. 40 CFR § 60.18(c)(4)(i) requires that the exit velocity remain below 60 feet/sec. Enterprise has centrifugal compressors and pneumatic pump seals and other equipment constructed on or about 2019 that are controlled by closed vent systems that can route to the Trains 1 and 2 Main and Acid Gas Flares for control of VOC emissions. Based on the tip diameters provided by Enterprise in responses 4 and 5 of Appendix B, Enterprise likely exceeded the 60 feet/sec exit velocity limit in 40 CFR § 60.18(c)(4)(i) from July 1, 2024 to December 31, 2024.

AOC 6: Exceeding Flare Capacities for Trains 1 and 2 Acid Gas Flares and Process Safety Management Requirements

Flare capacities were provided in Responses 4 and 5 of Appendix B. The flare flow rates indicate that for Train 1 Acid Gas Flare and Train 2 Acid Gas Flare, Enterprise exceeded the capacity of the flare. Operating flares many times their design rate, for extended periods of time, risks rupture of the flare stack and tip from overpressure, and resulting explosion, and strongly indicates Process Safety Management requirements are not being met.

AOC 7: Trains 1 and 2 Acid Gas Flare Sulfur Loading and §§60.5365a(g), 60.5405a through 60.5407a, 60.5410a(g) and 60.5415a(g)

Using the hourly maximum flow rate and the maximum H₂S concentration in gas sent to Trains 1 and 2 Acid Gas Flares obtained from flow data in Response 7 and sampling provided in Response 8 of Appendix B, the capacity of Train 2 is likely exceeding the 2 long tons per day (LTPD) capacity threshold for applicability of control requirements in 40 CFR §60.5365a(g), and the control requirements of 40 CFR §§ 60.5405a through 60.5407a, 60.5410a(g) and 60.5415a(g) may apply. 40 CFR § 60.5405a and Tables 1 and 2 require SO₂ emission reduction efficiencies based on a sulfur feed of >2 LTPD and <10 percent H₂S in acid gas that achieves a minimum initial 79 percent and ongoing 74 percent removal. Enterprise has no equipment that can remove and recover any of the sulfur from acid gas and instead flares and combusts all of the acid gas producing SO₂ that is emitted directly to the atmosphere.

AOC 8: Construction of the Plant and Prevention of Significant Deterioration Requirements for a Permit and Installation of Best Available Control Technology for SO₂, NO_x, VOC and GHGs

Enterprise constructed the plant, including all four flares, in two phases in or about 2019. Enterprise obtained a minor new source review permit for construction of the plant, but did not obtain a major Prevention of Significant Deterioration (PSD) permit. Based on flare gas composition and flare gas flow rates provided by Enterprise, the SO₂, NO_x, VOC, and GHG emissions from all four flares combined likely exceed major stationary source levels for each of those pollutants as defined in the Prevention of Significant Deterioration (PSD) permitting requirements of 40 CFR 52.21(b)(1)(i)(B) and (b)(49)(iv)(A). A new major stationary source is required to apply Best Available Control Technology (BACT) to newly constructed emission units for each regulated NSR pollutant that the source would have the potential to emit above major stationary source levels as specified at 40 CFR 52.21(j). Because Enterprise did not obtain a PSD permit, Enterprise did not conduct a BACT review and may not have installed controls that meet the requirements of PSD required BACT on all newly constructed emission units that emit each regulated NSR pollutant.

AOB 8A: Construction of the Plant and 30 TAC § 106.352 - Oil and Gas Handling and Production Facilities

30 TAC § 106.352(c) states:

“(2) All authorizations under this section shall meet the following:

(A) new, changed, or replacement facilities shall not exceed the thresholds for major source or major modification as defined in § 116.12 of this title (relating to Nonattainment and Prevention of Significant Deterioration Review Definitions), and in Federal Clean Air Act, §112(g) or §112(j).”

Based on flare gas composition and flare gas flow rates provided by Enterprise, the SO₂, NO_x, VOC, and GHG emissions from all four flares likely exceed major stationary source levels for each of those pollutants as defined in the Prevention of Significant Deterioration (PSD) permitting requirements of 40 CFR 52.21(b)(1)(i)(B) and (b)(49)(iv)(A).

Section V – LIST OF APPENDICES

Appendix A FLIR Video Log

Appendix B Inspection Follow-up Information Request Responses (Contains information claimed as Confidential Business Information in certain responses)

Appendix C TCEQ Non-Rule Standard Permit Registration Newberry Gas Plant September 2019

Appendix C.1 TCEQ Final Action 9-24-2019

Appendix C.2 TCEQ Non-Rule Standard Permit

Appendix D Title 5 Permit December 20, 2023