ENERGY TRANSFER

April 29, 2016

Ms. Melanie Magee
Environmental Engineer
Air Permits Section (6PD-R)
United States Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202

Subject: Lone Star NGL Fractionators LLC
Lone Star NGL, FRAC III Gas Plant
Chambers County, Texas
Rescission Request for Permit PSD-TX-110274-GHG

Dear Ms. Magee:

Lone Star NGL Fractionators LLC (Lone Star) is submitting this request to rescind the above-referenced Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit which was issued on April 16, 2014. This permit was issued by the U.S. Environmental Protection Agency (EPA) solely because emissions of GHGs were above the PSD major source threshold. FRAC I, II, and III are located at a single site, but are operationally independent. FRAC I and II were issued Permit No. PSD-TX-93813-GHG on October 12, 2012. A rescission request for this permit was submitted on April 21, 2016. The addition of FRAC III was considered a major modification to the existing major source since the net GHG emissions increase was above the threshold of 75,000 tpy CO_2e. The emissions from criteria pollutants at the facility do not exceed, and have never exceeded, PSD major source thresholds.

Based on the revisions to 40 Code of Federal Regulations (CFR) 52.21(w)(2)(iii) that became effective on July 6, 2015, sources that were required to obtain PSD permits solely based on emissions of GHGs may request that these permits be rescinded. The modified rule reads as follows:

> *(w)(2) Any owner or operator of a stationary source or modification who holds a permit for the source or modification may request that the Administrator rescind the permit or a particular portion of the permit if the permit for the source or modification was issued: (iii) Under 52.21 between July 1, 2011 and July 6, 2015 for a modification that was classified as a major modification under paragraph (b)(2) solely on the basis of an increase in emissions of greenhouse gases, which were defined as a regulated NSR pollutant through the application of paragraph (b)(49)(v)(b) of this section as in effect during this time period.*

Lone Star is requesting that this permit be rescinded as the site meets this criteria. Facility emissions of non-GHG criteria pollutants are authorized under TCEQ Permit No. 110274, which

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was initially issued on November 21, 2014 to authorize the construction of FRAC III. An amendment to this permit is currently under review at TCEQ to reflect as-built conditions. A copy of the current version of TCEQ Permit No. 110274 is included as Attachment A. Attachment B includes a copy of the TCEQ's technical review for Permit No. 110274 which summarizes the total project emissions from FRAC III and documents that the facility is not a PSD major source of any criteria pollutants.

If you have any questions, please contact me at 713-989-7762 or via email at Lisa.Swanson@EnergyTransfer.com.

Sincerely,

Lisa Swanson, P. E.
Environmental Manager

Attachments (2)

Cc: Ashley Harrison, Lone Star NGL Fractionators LLC, Mont Belvieu, TX
Cindy Pate, Lone Star NGL Fractionators LLC, Mont Belvieu, TX
Norman Rokyta, Lone Star NGL Fractionators LLC, Mont Belvieu, TX

ATTACHMENT A
TCEQ PERMIT NO. 110274

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 21, 2014

MR CLINT COWAN
VICE PRESIDENT ENVIRONMENTAL
LONE STAR NGL FRACTIONATORS LLC
800 E SONTERRA BLVD STE 400
SAN ANTONIO TX 78258-3941

Re: Initial Permit
Permit Number: 110274
Expiration Date: November 21, 2024
Lone Star NGL Fractionators LLC
Natural Gas Liquids Processing Plant
Baytown, Chambers County
Regulated Entity Number: RN106018260
Customer Reference Number: CN604309419
Account Number: CI-A019-S
Associated Permit Number: N182

Dear Mr. Cowan:

This is in response to your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) concerning the above-referenced project. Also, this will acknowledge that your application for the above-referenced permit is technically complete as of October 14, 2014.

In accordance with Title 30 Texas Administrative Code (TAC) Chapter 116 and based on our review, your permit is hereby issued. This information will be incorporated into the permit files. Enclosed are general conditions (permit face), special conditions, and a maximum allowable emission rates table. We appreciate your careful review of the permit and assuring that all requirements are consistently met. In addition, the construction and operation of the facilities must be as represented in the application.

This permit will be automatically void upon the occurrence of any of the following, as indicated in 30 TAC §116.120(a):

1. Failure to begin construction within 18 months of the date of issuance,

2. Discontinuance of construction for more than 18 months prior to completion, or

3. Failure to complete construction within a reasonable time.

Upon request, the executive director may grant extensions as allowed in 30 TAC §116.120(b).

This permit is effective as of the date of this letter and will be in effect for ten years from the date of approval.

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the executive director's decision. Any motion must explain why the commission should review the executive director's decision. According to 30 TAC §50.139, an action by the executive director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 7 copies of a motion must be filed with the Chief Clerk in person, or by mail to the Chief Clerk's address on the attached mailing list. On the same day the motion is transmitted to the Chief Clerk, please provide copies to the applicant, the executive director's attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the executive director's approval. According to Texas Health and Safety Code §382.032, a person affected by the executive director's approval must file a petition appealing the executive director's approval in Travis County district court within 30 days after the **effective date of the approval**. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

You are reminded that these facilities must be in compliance with all rules and regulations of the Texas Commission on Environmental Quality (TCEQ) and of the U.S. Environmental Protection Agency at all times.

If you need further information or have any questions, please contact Ms. Kristi Mills-Jurach, P.E. at (512) 239-1261 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

Michael Wilson, P.E., Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

MPW/km

Enclosure

cc: Air Section Manager, Region 12 - Houston
Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Numbers: 193441, 194426

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT

A Permit Is Hereby Issued To
Lone Star NGL Fractionators LLC
Authorizing the Construction and Operation of
Natural Gas Liquids Processing Plant
Located at **Baytown, Chambers County, Texas**
Latitude 29° 51′ 0″ Longitude –94° 54′ 37″

Permits: 110274 and N182

Issuance Date : November 21, 2014

Expiration Date: November 21, 2024

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 110274 and N182

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions. Emissions for planned maintenance, startup and shutdown of these facilities are not authorized in this permit.

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Industrial-Commercial-Institutional Steam Generating Units, Small Industrial-Commercial-Institutional Steam Generating Units, Stationary Compression Ignition Internal Combustion Engines and Crude Oil and Natural Gas Production, Transmission, and Distribution in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A, Db, Dc, IIII, and OOOO.

4. These facilities shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal combustion Engines in Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subparts A and ZZZZ.

Emission Standards and Operational Specifications

5. The FRAC III unit shall maintain a daily record of the natural gas liquids processed and the products produced to show the unit is operating within the representations in the permit application (Form PI-1 received May 17, 2013) and subsequent submittals. The carbon dioxide (CO_2), hydrogen sulfide (H_2S) and total sulfur concentration of the raw NGL shall be determined and checked quarterly; measurements from the supplier may be used to satisfy this requirement.

6. The FRAC III Thermal Oxidizer, Emission Point Number (EPN) 3SK25.002, shall be designed and operated in accordance with the following requirements:

   A. VOC concentration in the exhaust gas shall be maintained at less than 10 parts per million by volume on a dry basis (ppmvd) corrected to 15 percent oxygen (% O_2), or the device shall achieve a VOC destruction efficiency equal to or greater than 99.9 %.

B. The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and exhaust oxygen concentration not less than 15% while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six minute average temperature and six minute average oxygen concentration shall be greater than the respective hourly average maintained during the most recent satisfactory stack testing required by Special Condition No. 19.

C. The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement and recording system shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

D. The oxygen analyzer used to satisfy Special Condition No. 6.C shall continuously monitor and record oxygen concentration when waste gas is directed to the oxidizer. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. Necessary corrective action shall be taken for all CGA exceedances of ±15 percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the incinerator operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

7. The Plant Flare, EPN ISK25.001, shall be designed and operated in accordance with the following requirements:

   A. The flare systems shall be designed such that the combined assist natural gas and combined waste stream to the flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

      The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) is required per NSPS Subpart OOOO and may be requested by the appropriate regional office to demonstrate compliance with these requirements.

   B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, infrared monitor, or ultraviolet monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated or have a calibration check performed, at a frequency in accordance with, the manufacturer's specifications.

   C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

   D. The permit holder shall install a continuous flow monitor and composition analyzers that provide a record of the total vent stream flow and composition to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

      The monitors shall be calibrated or have a calibration check performed on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%, temperature monitor shall be ±2.0% at absolute temperature, and pressure monitor shall be ±5.0 mm Hg;

      Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be

performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR §60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §§60.18(f)(3) and 60.18(f)(4) shall be recorded at least once every hour. Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit.

8. The following requirements apply to capture systems for the plant flare system.

   A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

   B. The control device shall not have a bypass.

   C. The date and results of each inspection performed shall be recorded. If the results of any inspection are not satisfactory, the deficiencies shall be recorded and the permit holder shall promptly take necessary corrective action, recording each action with the date completed.

9. The FRAC III Hot Oil and Mole Sieve Regenerator Heaters, EPNs 3HR15.001 and 3HR15.002, shall be designed and operated in accordance with the following requirements:

   A. The heaters shall be controlled using low NO_x burners and selective catalytic reduction (SCR) on the exhaust, except alternatively the Mole Sieve Regenerator Heater may be controlled by ultra-low NO_x burners and flue gas recirculation.

   B. Except during startup and shutdowns, which shall not exceed 50 hours per year, emissions from each heater shall not exceed the following:

      (1) The Hot Oil Heater shall not exceed 0.0063 pound (lb) Nitrogen Oxide (NO_x) per million British thermal units (MMBtu) on an hourly average basis based on the higher heating value (HHV) of the fuel fired. The Mole Sieve Regenerator Heater shall not exceed 0.0065 pound (lb) Nitrogen Oxide (NO_x) per million British thermal units (MMBtu) or 5.0 ppmv at 3% O_2 on an hourly average basis based on the higher heating value (HHV) of the fuel fired.

      (2) 0.0013 lb Volatile Organic Compounds (VOC)/MMBtu based on the HHV of the fuel fired or 10 ppmvd corrected to 3 % O_2 on an hourly average basis.

(3) 50 parts per million by volume dry (ppmvd) carbon monoxide (CO) corrected to 3.0% excess oxygen (O_2) on an hourly average basis.

(4) 10 ppmvd ammonia (NH_3) corrected to 3.0% excess O_2 on an hourly average basis.

C. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of NO_x, CO, and O_2 from the FRAC III Mole Sieve Regenerator Heater (EPN 3HR15.002) and the in-stack concentration of NO_x, CO, NH_3 and O_2 from the FLAC III Hot Oil Heater (EPN 3HR15.001).

(1) The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.

(2) Section (a) below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:

(a) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.

(b) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

(3) The CEMS data shall be reduced to one hour average concentrations and combined with fuel flow data for the hour in accordance with EPA test Method 19 to determine and record the lb/hr emission rates of the MAERT pollutants, the hourly lbs NO_x/MMBtu, and the hourly average ppmvd CO and NH_3 at 3% O_2 for each heater at least once every day.

(4) All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

(5) The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.

(6) Quality-assured (or valid) data must be generated when the heater is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the heater operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

10. Fuel gas combusted at this facility shall be sweet natural gas containing no more than 4.0 ppmvd total sulfur per 100 dry standard cubic feet or pipeline quality ethane. The natural gas shall be sampled every 6 months to determine total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.

11. The permit holder shall install and operate a fuel flow meter to measure the fuel usage for the combustion devices. The monitored data shall be reduced to an hourly average flow rate at least once every day, using a minimum of four equally-spaced data points from each one-hour period. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent. In lieu of monitoring fuel flow, the permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

12. Piping, Valves, Pumps, Agitators, and Compressors - Intensive Directed Maintenance - 28LAER

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

A. The instrument monitoring requirements of paragraphs E, F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than

0.044 pounds per square inch, absolute (psia) at 68oF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) piping and instrumentation diagram (PID);

(2) a written or electronic database or electronic file;

(3) color coding;

(4) a form of weatherproof identification; or

(5) designation of exempted process unit boundaries.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.

D. To the extent that good engineering practice will permit, new and reworked components shall be so located to be reasonably accessible for leak-checking during plant operation. A difficult-to-monitor component is a component that cannot be inspected without elevating the monitoring personnel more than two meters above a permanent support surface or that requires a permit for confined space entry as defined in 29 CFR §1910.146 (December 1, 1998). An unsafe-to-monitor component is a component that the owner or operator determines is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of conducting the monitoring. Difficult-to-monitor and unsafe-to-monitor components shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor components may be identified by one or more of the methods described in subparagraph A above. A difficult-to-monitor or unsafe-to–monitor component for which quarterly instrument monitoring is specified may instead be monitored annually. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance.

Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly, except as the monitoring frequency is adjusted in accordance with item D above, using a gas analyzer with a directed maintenance program in accordance with item I below.

In lieu of the quarterly monitoring frequency specified above, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent. Then they may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent. If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

The percent of connectors leaking shall be determined using the following formula:

$$(Cl + Cs) \times 100/Ct = Cp$$

Where:

Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of connectors in the facility subject to the quarterly monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe-to-monitor connectors.

Cp = the percentage of leaking connectors for the monitoring period.

F. Valves shall be monitored by leak-checking for fugitive emissions at least quarterly, except as the monitoring frequency is adjusted in accordance with item D above, using a gas analyzer with a directed maintenance program in accordance with items I below. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

In lieu of the quarterly monitoring frequency specified above, valves may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent. Then they may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual

monitoring periods is less than 0.5 percent. If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

The percent of valves leaking shall be determined using the following formula:

$$(Vl + Vs) \times 100/Vt = Vp$$

Where:

Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.

Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor valves.

Vp = the percentage of leaking valves for the monitoring period.

G. Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

(1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with a gas analyzer meeting the requirements of item I below and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with a gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

H. All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven

pumps) may be used to satisfy the requirements of this condition and need not be monitored.

I. The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, than the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of a gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

J. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g.dripping process fluids) shall be tagged and replaced or repaired. Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the following repair and replacement requirements. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of

tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

K. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), and does not constitute approval of alternative standards for these regulations.

13. All other equipment with fugitive leak pathways to the atmosphere not addressed in Special Condition 12 (e.g. dump arms, hatches, in-situ instruments and meters, etc.), shall be identified, instrument monitored at least quarterly and subject to the leak definition, directed maintenance repair and recording requirements of Special Condition 12.

14. Storage tanks are subject to the following requirements:

A. Storage tank size, throughput, service and control is limited to the representations in the permit application for the following tanks:

Tank Name	Emission Point Number
Spent Caustic Storage Tank	300-SV19.001
Amine Storage Tank	300-SV19.002
Lean Amine Storage Tank	300-SV19.003
Process Water Slop Tank	300-SV19.006
Process Water Tank	300-SV19.009

B. The permit holder shall maintain a record of tank throughput in gallons on a rolling 12month basis.

C. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum.

D. The storage tanks shall be equipped with permanent submerged fill pipes.

15. Process wastewater shall be hard piped without venting from the process equipment to the wastewater treatment system.

16. Slop water pumped from the Slop Water tank shall be bottom loaded to tank trucks to be removed from the site.

17. The diesel engines used to drive the emergency generator and the firewater pump shall be fueled with low sulfur diesel and are each limited to 100 hours of non-emergency

operation per year. The engines may not be operated at the same time except during emergency operations. Records of the dates, times and purpose of operation of the engines shall be maintained.

18. Sampling ports and platform(s) shall be incorporated into the design of FRAC III Thermal Oxidizer stack, EPN 3SK25.002, and the waste gas header to the Thermal Oxidizer, the Plant Flare waste gas flow header associated with EPN 1SK25.001, the FRAC III Hot Oil Heater stack, EPN 3HR15.001, and the Mole Sieve Regenerator Heater stack, EPN 3HR15.002 according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

Initial Compliance Demonstration

19. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the FRAC III Thermal Oxidizer, FRAC III Hot Oil Heater and FRAC III Mole Sieve Regenerator Heater to demonstrate compliance with the MAERT and establish parameter limits and show compliance with limits in Special Conditions 6 and 8. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

    Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

    A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

        (1) Proposed date for pretest meeting.

        (2) Date sampling will occur.

        (3) Name of firm conducting sampling.

        (4) Type of sampling equipment to be used.

        (5) Method or procedure to be used in sampling.

        (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

        (7) Procedure/parameters to be used to determine worst case emissions and set operating parameters during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

B. Air contaminants to be tested for shall include (but are not limited to) the following:

(1) FRAC III Thermal Oxidizer, EPN 3SK25.002, VOC, NO_x, CO and SO_2.

(2) FRAC III Hot Oil Heater, EPN 3HR15.001, VOC, NO_x, CO and NH_3.

(3) FRAC III Mole Sieve Regenerator Heater, VOC, NO_x, and CO.

C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

D. Testing should be conducted at the maximum natural gas liquids (NGL) processing rate. The facility being sampled shall operate at normal maximum firing rates and when the Thermal Oxidizer is tested, the CO_2, H_2S and Sulfur content of the raw NGL being processed by the amine unit shall be measured, during stack emission testing. Note, NGL supplier measurements may not be substituted for the NGL measurement during stack testing, but should be compared to the measurements required and any differences should be addressed in the final test report. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the raw NGL feed CO_2, H_2S or total sulfur concentration is greater than that recorded during the test period, stack sampling of the Thermal Oxidizer shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.

E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

Planned Maintenance, Startup and Shutdown (MSS)

20. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit.

    Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

    Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

    The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

    A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

    B. The type of planned MSS activity and the reason for the planned activity;

    C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

    D. The date and time of the MSS activity and its duration;

    E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

    All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

21. Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.

22. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with the Special Conditions in this permit must be used when conducting the planned maintenance

activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Recordkeeping

23. Records of the permit application and initial compliance demonstrations should be maintained for the life of the permit. Records associated with throughput and emissions should be maintained for the 10 year baseline period required for evaluation of any future federal modification.

Nonattainment New Source Review Offsets

24. This Nonattainment New Source Review (NNSR) permit is issued/approved based on the requirement that the permit holder obtain and provide at least 24.5 tons per year (tpy) of VOC emission credits (ECs) to offset the 18.84 tpy VOC project emission increase and 18.3 tpy of NO_x ECs to offset the 14.04 tpy NO_x project emission increase for the facilities authorized by this permit at a ratio of 1.3 to 1, through participation in the TCEQ Emission Banking and Trading (EBT) Program. The permit holder shall specifically identify the amount of ECs, by TCEQ Emission Reduction Credit Certificate (ERCC) number. The permit holder shall, prior to the commencement of operation, obtain approval from the TCEQ EBT Program for the ECs being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ ERCC number.

Date: November 21, 2014

Attachment A
Inherently Low Emitting Activities

Activity	Emissions				
	VOC	NOx	CO	PM	H_2S/SO_2
Calibration of analytical equipment	x	x	x		x
Catalyst charging/handling				x	
Instrumentation/analyzer maintenance	x				
Meter proving	x				
Replacement of analyzer filters and screens	x				
Maintenance on water treatment systems (cooling, boiler, potable)	x				
Soap and other aqueous based cleaners	x				
Cleaning sight glasses	x				

Date: November 21, 2014

Attachment B
Routine Maintenance Activities

Pump repair/replacement

Fugitive component (valve, pipe, flange) repair/replacement

Compressor repair/replacement

Heat exchanger repair/replacement

Vessel repair/replacement

Date: November 21, 2014

Attachment C
MSS Activity Summary

Facilities	Description	Emissions Activity	EPN
FRAC III	Flare sweeps	Vent to flare	ISK25.001 MSS
FRAC III	Metering blowdown	Vent to flare	ISK25.001 MSS
FRAC III	Pit trap blowdown	Vent to flare	ISK25.001 MSS
FRAC III	Compressor vents refrigeration system	Vent to flare	ISK25.001 MSS
FRAC III	Process unit purge/degas/drain	Vent to atmosphere	3MSS1
FRAC III	Preparation for facility/component repair/replacement	Vent to atmosphere	3MSS1
FRAC III	Recovery from facility/component repair/replacement	Vent to atmosphere	3MSS1
All tanks	Tank cleaning	Cleaning activity and solvents	3MSS1
see Attachment A	miscellaneous low emitting activities	see Attachment A	3MSS1

Date: November 21, 2014

Emission Sources - Maximum Allowable Emission Rates

Permit Number 110274 and N182

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
3SK25.002	FRAC III Thermal Oxidizer	VOC	0.93	2.68
		NO_x	0.64	2.20
		CO	1.93	6.59
		PM	0.19	0.65
		PM_{10}	0.19	0.65
		$PM_{2.5}$	0.19	0.65
		SO_2	<0.01	0.01
3HR15.001	FRAC III Hot Oil Heater (215 MMBtu/hr) SCR Stack	VOC	0.25	1.22
		VOC (MSS)	5.73	--
		NO_x	1.18	5.33
		NOx (MSS)	6.87	--
		CO	7.25	31.60
		PM	1.42	6.20
		PM_{10}	1.42	6.20
		$PM_{2.5}$	1.42	6.20
		SO_2	0.14	0.61
		NH_3	1.02	4.43

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
3HR15.002	FRAC III Mole Sieve Regenerator heater (59 MMBtu/hr)	VOC	0.06	0.31
		VOC (MSS)	1.41	—
		NO_x	0.29	1.31
		NOx (MSS)	1.36	—
		CO	1.78	7.76
		PM	0.35	1.52
		PM_{10}	0.35	1.52
		$PM_{2.5}$	0.35	1.52
		SO_2	0.03	0.15
3SV19.001	FRAC III Amine Tank 1	VOC	0.26	<0.01
3SV19.002	FRAC III Amine Tank 2	VOC	0.09	<0.01
3SV19.009	FRAC III Diesel Tank	VOC	0.02	<0.01
3SV19.006	FRAC III Slop Water Tank	VOC	<0.01	<0.01
3SV19.006L	FRAC III Slop Water Loading	VOC	<0.01	<0.01
3FUG	FRAC III Fugitives (5)	VOC	1.42	6.23
		Propylene	0.18	0.80

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
3GEN.001	FRAC III Emergency Diesel Generator	VOC	3.09	0.15
		NO_x	3.09	0.15
		CO	2.70	0.14
		PM	0.15	0.01
		PM_{10}	0.15	0.01
		$PM_{2.5}$	0.15	0.01
		SO_2	<0.01	<0.01
3PM18.044	FRAC III Firewater Pump Diesel Engine	VOC	3.02	0.15
		NO_x	3.02	0.15
		CO	2.65	0.13
		PM	0.15	0.01
		PM_{10}	0.15	0.01
		$PM_{2.5}$	0.15	0.01
		SO_2	<0.01	<0.01
ISK25.001	Plant Flare MSS (6)	VOC	320.35	7.96
		Propylene	135.72	2.23
		NO_x	67.03	4.90
		CO	133.82	9.78
		SO_2	0.44	0.05
3MSS1	FRAC III Miscellaneous Maintenance	VOC	14.63	0.15
		Propylene	7.56	0.08

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

Emission Sources - Maximum Allowable Emission Rates

NO_x	- total oxides of nitrogen
SO_2	- sulfur dioxide
PM	- total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10}	- total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
NH_3	- ammonia

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The Plant Flare, EPN ISK25.001, is also authorized under Standard Permit (SP) Registration 83813. SP 83813 authorizes facilities in FRAC I, FRAC II, FRAC Export and the combustion of vent gas and sweep gas sources through the Plant Flare, and the Plant Flare Pilot Gas and emissions and those potential emissions and authorized limits are associated with that registration. The allowable emissions in this MAERT are for the sources represented in this permit for FRAC III sources only, and the annual 12 month rolling limit includes both the normal operations and planned maintenance, startup and shutdown emissions.

Date: **November 21, 2014**

ATTACHMENT B
TCEQ TECHNICAL REVIEW FOR PERMIT NO. 110274

Construction Permit

Source Analysis & Technical Review

Company	**Lone Star NGL Fractionators LLC**	Permit Number	**110274 and N182**
City	**Baytown**	Project Number	**193441 and 194426**
County	**Chambers**	Account Number	**N/A**
Project Type	**Initial**	Regulated Entity Number	**RN106018260**
Project Reviewer	**Mr. Jeff Greif**	Customer Reference Number	**CN604309419**
Site Name	**Natural Gas Liquids Processing Plant**		

Project Overview

Request is to construct a third natural gas liquids (NGL) processing plant at the site, called FRAC III. The other two plants, FRAC I & II, which include an Export FRAC, are authorized by Standard Permit 83813 which is requested to only be referenced in the new permit.

Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)[1]	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)	Project Changes at Major Sources (Baseline Actual to Allowable)[2]
PM	22.62	31.01	8.39	8.39
PM_{10}	22.62	31.01	8.39	8.39
$PM_{2.5}$	22.62	31.01	8.38	8.38
VOC	75.45	94.29	18.84	18.84
NO_X	37.62	51.66	14.04	14.04
CO	122.22	178.22	56.00	56.00
SO_2	17.17	17.99	0.82	0.82

[1]Currently authorized under Oil & Gas Standard Permit (Registration No. 83813).

[2]All emission increases are due to new equipment installed at the FRAC III plant and additional utilization of existing flare (ISK25.001, authorized by Standard Permit Registration No. 83813).

Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	**March 10, 2014**
Compliance period:	**September 01, 2009 to August 31, 2014**
Site rating & classification:	**0.62 – Satisfactory**
Company rating & classification:	**0.62 – Satisfactory**
If the rating is 50<RATING<55, what was the outcome, if any, based on the findings in the formal report:	**NA**
Has the permit changed on the basis of the compliance history or rating?	**No**

Public Notice Information - 30 TAC Chapter 39 Rules

Rule Citation	Requirement	
39.403	Date Application Received:	**May 17, 2013**
	Date Administratively Complete:	**June 10, 2013**
	Small Business Source?	**No**
	Date Leg Letters mailed:	**June 10, 2013**
39.603	Date Published:	**June 23, 2013**
	Publication Name:	***Baytown Sun***
	Pollutants:	**Organic compounds, nitrogen oxides, carbon monoxide, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less, and sulfur dioxide**
	Date Affidavits/Copies Received:	**July 1, 2013**
	Is bilingual notice required?	**Yes**
	Language:	**Spanish**
	Date Published:	**June 23, 2013**
	Publication Name:	***El Perico***
	Date Affidavits/Copies Received:	**July 1, 2013**
	Date Certification of Sign Posting / Application Availability Received:	**July 24, 2013**
39.604	Public Comments Received?	**No**
	Hearing Requested?	**No**
	Meeting Request?	**No**
	Date Response to Comments sent to OCC:	**NA**
	Consideration of Comments:	**NA**
	Is 2nd Public Notice required?	**Yes**
39.419	Date 2nd Public Notice/Preliminary Decision Letter Mailed:	**October 14, 2014**
39.413	Date Cnty Judge, Mayor, and COG letters mailed:	**October 14. 2014**
	Date Federal Land Manager letter mailed:	**N/A**
39.605	Date affected states letter mailed:	**N/A**
39.603	Date Published:	**October 18, 2014**
	Publication Name:	***Baytown Sun***
	Pollutants:	**Organic compounds, nitrogen oxides, carbon monoxide, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less, and sulfur dioxide**
	Date Affidavits/Copies Received:	**October 24, 2014**
	Is bilingual notice required?	**Yes**
	Language:	**Spanish**
	Date Published:	**October 18, 2014**
	Publication Name:	***El Perico***
		October 24, 2014

	Date Affidavits/Copies Received:	
	Date Certification of Sign Posting / Application Availability Received:	**November 18, 2014**
	Public Comments Received?	**No**
	Meeting Request?	**No**
	Date Meeting Held:	**N/A**
	Hearing Request?	**No**
	Date Hearing Held:	**N/A**
	Request(s) withdrawn?	**N/A**
	Date Withdrawn:	**N/A**
	Consideration of Comments:	**N/A**
39.421	Date RTC, Technical Review & Draft Permit Conditions sent to OCC:	**N/A**
	Request for Reconsideration Received?	**N/A**
	Final Action:	**N/A**
	Are letters Enclosed?	**N/A**

Construction Permit & Amendment Requirements - 30 TAC Chapter 116 Rules

Rule Citation	Requirement	
116.111(a)(2)(G)	Is the facility expected to perform as represented in the application?	**Yes**
116.111(a)(2)(A)(i)	Are emissions from this facility expected to comply with all TCEQ air quality Rules & Regulations, and the intent of the Texas Clean Air Act?	**Yes**
116.111(a)(2)(B)	Emissions will be measured using the following method:	**EPA Method 21, Vent gas flow and composition, CEMs**
	Comments on emission verification:	
116.111(a)(2)(D)	Subject to NSPS?	**Yes**
	Subparts **A, Db, Dc, IIII & OOOO**	
116.111(a)(2)(E)	Subject to NESHAP?	**No**
	Subparts &	
116.111(a)(2)(F)	Subject to NESHAP (MACT) for source categories?	**Yes**
	Subparts **A & ZZZZ**	
116.111(a)(2)(H)	**Nonattainment review applicability:** The site is in Harris County which is in severe nonattainment for ozone requiring evaluation of VOC and NO_x, ozone precursors. The site is existing major for both pollutants and the increases of each exceed the netting trigger of 5 tpy. Since the previous construction making the site major is less than 5 years old, the company has elected to forgo netting and is applying for a federal nonattainment permit (pending N182) for this project.	
116.111(a)(2)(I)	**PSD review applicability:** The site is an unnamed source located in Harris county has emissions of NO_x, CO, PM and PM fractions, and SO_2 which are subject to PSD applicability review. The site is not major for PSD and the new facilities will not be major for those pollutants.	

116.111(a)(2)(L)	Is Mass Emissions Cap and Trade applicable to the new or modified facilities?		**Yes**
	If yes, did the proposed facility, group of facilities, or account obtain allowances to operate:		
116.140 - 141	Permit Fee: $ **75,000**	Fee certification:	**Yes**

Title V Applicability - 30 TAC Chapter 122 Rules

Rule Citation	Requirement
122.10(13)	**Title V applicability:** Yes, per this application they will need to apply for and obtain a Title V Operating Permit prior to start of operation.
122.602	**Periodic Monitoring (PM) applicability:** All sources are subject to monitoring in the special conditions. The thermal oxidizer will be monitored for firebox exit temperature and outlet oxygen concentration (SC6). The plant flare has a thermocouple to monitor pilot flare and continuous flow and composition monitors (SC7). The Hot Oil and Mole Sieve Regenerator Heaters are required to be equipped with CEMs (SC9). Fuel sampling for total sulfur is required by SC10. Fuel usage monitoring is required by SC10. Fugitive monitoring meets 28LAER as required by SC12. Tank throughput monitoring is required by SC14.
122.604	**Compliance Assurance Monitoring (CAM) applicability:** The process vents to a thermal oxidizer and a flare and are subject to CAM. Thermal oxidizer monitoring is required by SC6 and the plant flare monitoring is required by SC7. CAM conditions for the flare (capture system inspections and bypass prohibition) are required by SC8.

Request for Comments

Received From	Program/Area Name	Reviewed By	Comments
Region:	**12**	**Amy Messick**	**Requested additional records and monitoring requirements**
City:	**Baytown**		
County:	**Chambers**		
Toxicology:			
ADMT:		**Javier Rosa**	**Acceptable for all review types and pollutants**
Compliance:			
Legal:			
Comment resolution and/or unresolved issues:			**Added recordkeeping (SC23). Monitoring included for thermal oxidizer, flare, heaters, fugitive components and tanks.**

Process/Project Description

Project Description

Request is to construct a third natural gas liquids (NGL) processing plant at the site, called FRAC III. The other two plants, FRAC I & II, which include an Export FRAC, are authorized by Standard Permit 83813. There is no change to the authorizations for the original facilities.

The site emissions are greater than the NNSR thresholds for NO_x and VOC prior to this project. The existing facilities are recently constructed. Since proposed emissions from this new facility are greater than the netting thresholds for NO_x and VOC, the facility has opted to declare this as a major modification and foregoing netting.

Offsets are required in a ratio of 1.3:1 for both VOC and NO_x. SC24 includes the requirement for securing offsets as follows:

Pollutant	Project Emissions Increase tpy	Offsets Required
VOC	18.84	24.5
NOx	14.04	18.3

Process Description

NGL are brought on to the site via pipeline and metered into the 3 fractionation units. This third fractionation unit (FRAC III) is proposed to include the same series of unit operations as the first two units. First is an amine unit that removes carbon dioxide (CO_2) and any trace H_2S from the NGL in the feed. This is followed by a dual bed molecular sieve dehydration unit to remove water from the NGL. A high efficiency thermal oxidizer, EPN 3SK25.002, is proposed to control any organic compounds and H_2S removed with the CO_2 in the amine unit and any organics carried out when the mole sieve beds are regenerated.

The NGL then flows through a series of distillation columns with hot oil reboilers and top chilled condensers. The columns separate out the products ethane, propane, iso-butane, normal butane with the bottom mix being a natural gasoline and the products are pumped out in sales pipelines. The heaters, EPNs 3HR15.001 and 3HR15.002 are natural gas fired. The Hot Oil Heater (EPN 3HR15.001) is a 215 MMBtu/hr unit that will heat the hot oil which is pumped to the distillation column heat exchange reboilers to boil the NGL fractions for the separation. The Mole Sieve Regenerator Heater (EPN 3HR15.002) is a 59 MMBtu/hr unit used to heat the oil that heats natural gas in heat exchangers for the mole sieve regeneration. The heater oil is extremely low vapor pressure and loops from the heaters to the processes and back to storage and then the heaters. The cooling system heat exchangers loop a refrigerant in a closed system and no emissions vents are associated with that process. The equipment has safety pressure relief devices and some small vents that will flow to the existing plant flare.

There are fixed roof storage tanks that vent to the atmosphere for the non-emitting heater oil tanks. EPNs 3SV19.001 and 3SV19.002 store and provide the amine used in the amine unit. EPN 3SV19.009, , a small diesel tank, provides fuel for an emergency generator and firewater pump engines. EPN 3SV19.006L, a slop water tank, will receive wash down water from the process that can be contaminated with lubricating oil or any spills or liquid leaks. The slop water will be periodically bottom loaded into tank trucks to be hauled offsite for disposal. Loading emissions are included in EPN 3SV19.006L.

The new diesel engines for the emergency generator and firewater pump, EPNs 3GEN.001 and 3PM18.044 are permitted for routine testing for a total of 100 hours per year each. Piping, valves, pumps, compressors and other fittings on equipment have seals that can leak, these emissions called fugitives, EPN 3FUG, will be subject to a leak detection and repair (LDAR) program with some directed to flare control as minor vents.

Planned maintenance, startup and shutdown (MSS) emissions are authorized through either EPN 3MSS1 (miscellaneous maintenance) or are vented to the flare (EPN ISK25.001). Activities that may vent to the flare include flare sweeps, metering blowdowns, pig trap blowdowns, and compressor vent refrigeration system clearing. Inherently low emitting activities are included in Attachment A. Routine maintenance activities are included in Attachment B. All other MSS activities associated with FRAC III are included in Attachment C. Monitoring and recordkeeping conditions for MSS are included in SC20-22.

Pollution Prevention, Sources, Controls and BACT- [30 TAC 116.111(a)(2)(C)]

Plant Flare

The plant flare is an existing unit handling process vent and MSS flows from FRAC I, II & Export, proposed to be connected to FRAC III to additionally handle those process vent and MSS flows. The flare is non-assisted with a monitored continuous burning pilot. The flare is represented to meet 40 CFR 60.18 for maximum potential waste gas flow tip velocity and minimum waste gas heat content. Piping header connection is noted to have sweep gas and heat content is maintained with supplemental sweet natural gas input. Use of flares for variable rate VOC venting and MSS control is a standard practical approach and the assurance of good combustion through continuous compliance with 60.18 flow and heating value monitoring meets BACT at

98% or better VOC control and is being accepted as LAER control. VOC emissions were estimated for MSS assuming a worst case mass flow of emissions from the fractionation towers with 98% DRE for the C4+ constituents and 99% for the C3 and smaller constituents. Emissions for NO_x are based on TCEQ guidance for burning a high Btu (>1000 Btu/scf) waste gas stream of 0.1380 lbs NO_x/MMBtu, based on the lower or net heating value of the stream. CO emissions are based on the same guidance and waste gas heat content assumption at 0.2755 lbs CO/MMBtu. SO2 emissions were associated with the fuel gas. Composition and flow monitoring at the tip and leaving the FRAC III unit are required.

Fugitives

Piping and components deliver the NGL to the units, handle the amine in that unit, then handle the separated products, and waste oil and water. There is also a separate sweet natural gas fuel piping system. Emissions from the components were estimated by applying the oil and gas factors, reduced for an estimate of the maximum % VOC the lines would carry and then reduced for the application of the leak detection and repair (LDAR) program 28 LAER, applied in Special Condition (SC) 11. Except for the NGL piping coming on to the site all of the piping is new so pumps and compressors will be built with leak detection or control systems. The sampling systems were noted to be closed loop so emissions are only associated with connectors. Gas and light liquid relief valves were noted to be directed to the plant flare. The representations included a large number components classified as "Other" with monitoring credit applied to the gas and light liquid components, but no specific description of the nature of these components. SC 12 was crafted to require all of these components be built such that they can be monitored and repaired in accordance with the 28 LAER program. All these piping components are covered by the area source EPN 3FUG. By design 28 LAER exceeds BACT and applies LAER to the components proposed.

Amine Unit

The amine unit uses ethanolamine or monoethanolamine (MEA) to remove CO2 and residual H2S from the NGL. The amine and some product NGL is carried out the bottom of the absorber with the CO2 and H2S partially depressured in a flash tank followed by an oil heated reboiler and tower where the CO2 and any residual H2S and NGL absorbed in the MEA is boiled off. These waste gas streams (flash tank vent and tower vent) are directed to the FRAC III thermal oxidizer. The MEA is then pumped off the bottom of the flash tower and returned to the absorption vessels through an amine surge tank. Two fixed roof tanks are represented to hold the amine one receives the amine and is used to supply makeup amine and the other functions as a flow through surge vessel.

The FRAC III thermal oxidizer is represented to combine the amine unit waste gas stream with sweet natural gas at up to 5 MMBtu/hr to combust the residual NGL and convert the H2S to SO2 at 99.9% efficiency or 10 ppmvd VOC at 15% O2. Backup relief to the flare is indicated. The unit is subject to temperature and oxygen monitoring. The limitations meet BACT/LAER for this control. Requirements are in SC 6.

Mole Sieve Dehydration Unit

The dual bed system is represented as totally enclosed, with regeneration waste gas indicated to go to the thermal oxidizer.

Fractionation Columns

Represented as a totally enclosed column systems with noncontact hot oil reboilers at the bottom and chilled condensers using an enclosed refrigeration system at the tops.

Heater Systems

The larger sweet natural gas fired FRAC III hot oil heater will heat dowtherm in closed exchange piping above the up fired fire box. The hot oil is pumped to the fractionation column and amine unit reboilers. The hot oil returns to tankage (dowtherm is not volatile so the tanks are not associated with emissions) and the heater and is cycled. The 215 MMBtu/hr sweet natural gas fired heater is represented to use low NOx burners, with selective catalytic reduction (SCR) on the exhaust. The burners are ignited with a pilot. The heaters will use good combustion practices thru low NO_x burners and a selective catalytic reduction (SCR) control device (EPN 3HR15.001) and good combustion practices and ultra-low NO_x burners with flue gas recirculation (EPN 3HR15.002).

LAER was represented for the two heaters per RBLC and other analysis. The larger heater using the combination of burner control and the SCR will meet 0.0063 lbs NOx/MMBtu on an hourly average basis based on the higher heating value (HHV) of the fuel fired. The smaller heater based on California rules will use the ultra-low NOx burner and flu gas recirculation to meet 0.0065 lbs NOx/MMBtu or 5.0 ppmv at 3% O_2 on an hourly average basis based on the higher heating value (HHV) of the fuel fired. Good combustion practices were noted to allow both to meet the following: 0.0013 lbs VOC/MMBtu based on the HHV of the fuel fired or 10 ppmvd corrected to 3 % O2 on an hourly average basis during normal operation; 50 parts per million by volume dry (ppmvd) carbon monoxide (CO) corrected to 3.0% excess oxygen (O_2) on an hourly average basis. PM (assumed to potentially all be PM2.5) is represented at 0.0075 lbs PM/MMBtu from vendor commitments, which exceeds the standard AP-42 representation for gas fired emissions and meets BACT requirements for the heaters. SO2 was estimated base on the represented 4.0 ppmv sulfur content of the sweet natural gas. The SCR system will utilize ammonia (NH3) injection from a pressurized ammonia storage tank. NH3 slip in the exhaust will be limited to 10 ppmvd @ 3% O2. The system will be

monitored for fuel use, and emissions of NOx, CO, NH3 and O2 will be directly monitored with CEMS. Heater startups were noted to not be able to utilize SCR and transition emissions were noted to be higher. Startup emissions are noted to be limited to 50 hrs/yr or less. Startups are expected to take no more than 1 hour to come back to normal emission rates. The heater limitations are addressed in SC 8

Storage Tanks

Vertical fixed roof storage tanks and pressure tanks will be utilized for the FRAC III unit. The fixed roof only handle low volatility material (<< 0.5 psia) and are bottom filled and white to meet BACT. The VOC emissions are less than 0.01 tpy with no RBLC control noted for this type of tank so BACT is being accepted as LAER for these tanks.

The two amine storage tanks (3SV19.001 and 3SV19.002) are vertical fixed roof. One tank is loaded directly from tank trucks and the second (larger) tank has process flow-through and addition from the makeup tank. The short term emission rate was based on confidential maximum fill rates and the vapor pressure of MEA at 95°F or 0.014 psia. Annual emissions were calculated by the Tanks 4.09 program with confidential maximum throughput estimated.

The Slow Water Tank (3SV19.006) is a vertical fixed roof tank that receives wash down water (e.g pump lube oil leak). The stored material will have a very low vapor pressure (<<0.5 psia). The VOC emissions are less than 0.01 tpy with no RBLC control noted for this type of tank so BACT is being accepted as LAER for this tank.

The Diesel Tank (3SV19.009) is used to store fuel for the emergency engines. The VOC emissions are less than 0.01 tpy with no RBLC control noted for this type of tank so BACT is being accepted as LAER for this tank.

Loading

The only normal loading is to empty the slop oil tank to a tank truck for offsite disposal (3SV19.006L). Bottom fill is required to meet BACT / LAER.

Diesel Engines

Two 447 kW/hr diesel engines (#GEN.001 and 3PM18.044) will power the emergency generator and firewater pump servicing the FRAC III unit. The new engines were represented to meet the current 2006 Tier 3 standards in Table 1 of 40 CFR 89.112(a) as required by NSPS IIII (i.e. 4 g NMHC + NOx / kW-hr, 3.5 g CO/ kW-hr and 0.20 g PM / kW-hr). Emissions were estimated conservatively for VOC and NOx based on 4 g/ kW-hr each. SO2 emissions were based on the currently available low sulfur diesel at 15 ppmw Sulfur. The engines normal use for periodic readiness testing was noted to be limited to 36 hours each annually. Since the engines are emergency use only with very limited run time this standard is accepted for BACT and LAER. Periodic monitoring is satisfied with a record of hours of run time, see SC 16.

MSS for FRAC III

Most MSS activities will be vented to the flare (ISK25.001) which meets LAER as shown above. Miscellaneous MSS emissions from low-emitting activities are required to be recorded and tracked on a monthly basis. All planned maintenance activities are required to be conducted in a manner consistent with good practice for minimizing emissions.

Impacts Evaluation - 30 TAC 116.111(a)(2)(J)

Was modeling conducted?	**Yes**	Type of Modeling:	**SCREEN3**
Will GLC of any air contaminant cause violation of NAAQS?		**No**	
Is this a sensitive location with respect to nuisance?		**No**	
[§116.111(a)(2)(A)(ii)] Is the site within 3000 feet of any school?		**No**	
Additional site/land use information: Industrial area with some open fields around.			

Summary of Modeling Results

SCREEN3 modeling was conducted for all sources of NAAQS pollutants. The results for all pollutants and averaging period are below significant impact levels:

Pollutant	Averaging Time	GLCmax (µg/m³)	De Minimis (µg/m³)

SO_2	1-hr	0.3	7.8
SO_2	3-hr	0.3	25
SO_2	24-hr	0.1	5
SO_2	Annual	0.02	1
PM_{10}	24-hr	1.7	5
$PM_{2.5}$	24-hr	0.8	1.2
$PM_{2.5}$	Annual	0.25	0.3
NO_2	1-hr	6.5	7.5
NO_2	Annual	0.74	1
CO	1-hr	65	2000
CO	8-hr	82	500

The use of the 24-hr and annual $PM_{2.5}$ De Minimis levels is reasonable per draft EPA guidance for $PM_{2.5}$[3]. If the monitoring data shows that the difference between the $PM_{2.5}$ NAAQS and the monitored $PM_{2.5}$ background concentrations in the area is greater than the $PM_{2.5}$ De Minimis level, then the proposed project with predicted impacts below the De Minimis level would not cause or contribute to a violation of the $PM_{2.5}$ NAAQS and does not require a full impacts analysis. Background concentrations for $PM_{2.5}$ were obtained from the EPA AIRS monitor 482010058 located at 7210 ½ Bayway Drive, Baytown, Harris County. The three-year average (2011-2013) of the 98th percentile of the annual distribution of the 24-hr concentrations was used for the 24-hr value (21.8 $\mu g/m^3$) and the three-year average (2011-2013) of the annual average concentrations was used for the annual value (10.8 $\mu g/m^3$). The use of this monitor is reasonable for the project site based on a quantitative comparison of nearby sources within ten km of the monitor location and project site.

The sources associated with non-criteria air pollutants (speciated VOCs and inorganics) were modeled for the MERA analysis. All constituents fell out at Step 5 except for benzene and ethanolamine which fell out at Step 10. No further review is required.

The modeling was audited and approved by ADMT for all pollutants for all averaging periods. Since no constituents have modeled impacts greater than the ESL, Toxicology Division review was not required. Further review is not required.

Permit Concurrence and Related Authorization Actions

Is the applicant in agreement with special conditions?	**Yes**
Company representative(s):	**Jeff Weiler**
Contacted Via:	**Email**
Date of contact:	**October 10, 2014**
Other permit(s) or permits by rule affected by this action:	**No**
List permit and/or PBR number(s) and actions required or taken:	**N/A**

Project Reviewer	Date	Team Leader/Section Manager/Backup	Date

3http://www.epa.gov/ttn/scram/guidance/guide/Guidance_for_PM25_Permit_Modeling.pdf