Florida Department of Environmental Protection

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PERMITTEE

Sabal Trail Transmission, LLC
5400 Westheimer Court
Houston, TX 77056

Authorized Representative:
Thomas Wooden, Vice President, Field Operations

Air Permit No. 0970092-002-AO
Initial Air Operation Permit
Reunion Compressor Station
Osceola County, Florida

PROJECT

This is the final air operation permit, which authorizes the operation of the Reunion Compressor Station, which is a natural gas compressor station (Standard Industrial Classification No. 4922) along Osceola Polk Line Road in Intercession, Osceola County, Florida. The Reunion Compressor Station maintains line pressure in the Sabal Trail interstate natural gas pipeline originating in Tallapoosa County, Alabama and terminating in Osceola County, Florida. The UTM coordinates are Zone 17, 445.49 kilometers (km) East, and 3126.3 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

Permitting Authority: Applications for air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4 and 62-210 of the Florida Administrative Code (F.A.C.). The Permitting Authority responsible for making a permit determination for this project is the Division of Air Resource Management. The Permitting Authority's physical address is: 2600 Blair Stone Road, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850-717-9000.

Petitions. A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, MS #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, Agency_Clerk@dep.state.fl.us. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

0970092-002-AO Effective Date: March 7, 2018
Renewal Application Due Date: January 6, 2023
Expiration Date: March 7, 2023

Executed in Tallahassee, Florida

David Lyle Read, P.E.
2018.03.07 12:29:50 -05'00'

For:
Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Robert Van Borssum III, Sabal Trail Transmission, LLC: Bobby.VanBorssum@enbridge.com
Mr. Thomas Wooden, Spectra Energy Corporation: TVWooden@spectraenergy.com
Mr. Michael Ballenger, P.E., Trinity Consultants: MBallenger@trinityconsultants.com
Central District Office, DEP: DEP_CD@dep.state.fl.us
Ms. Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Lynn Scearce 2018.03.07 13:13:17 -05'00'

FACILITY DESCRIPTION

Sabal Trail Transmission, LLC operates the Reunion Compressor Station as part of the Sabal Trail natural gas pipeline. The Reunion Compressor Station consists of two Solar® turbine-driven compressor units (EU001 and EU002). EU001 and EU002 drive centrifugal compressors, which recompress the natural gas. Increasing the pressure of the natural gas creates the energy needed to move the gas through the transmission pipeline. EU001 and EU002 use a small amount of the natural gas from the pipeline as fuel. The compressor station also includes a natural-gas fired emergency engine (EU003), fugitive piping components (EU004), and gas release events (EU005). Also included in this permit are multiple sources which are exempt from permitting per Rule 62-210.300, F.A.C., (see Appendix I, List of Exempt Sources).

The existing facility consists of the following emissions units (EU).

EU No.	Emission Unit Description
001	Solar® Mars 100-16002 15,900 break horsepower (bhp) natural gas fired combustion turbine-driven compressor unit
002	Solar® Titan 130 20,500 bhp natural gas fired combustion turbine-driven compressor unit
003	880 bhp natural gas fired emergency generator
004	Fugitive Piping Components
005	Gas Release Events

APPLICABLE REGULATIONS

A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	001, 002, 003, 004
40 CFR 60, Subpart KKKK, NSPS Standards of Performance for Stationary Combustion Turbines	001, 002
40 CFR 60, Subpart OOOOa, NSPS Standards of Performance for Crude Oil and Natural Gas Facilities	004
40 CFR 60, Subpart JJJJ, NSPS Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	003
40 CFR 63, Subpart A, NESHAP General Provisions	003
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	003
State Rule Citations	
Rule 62-210.300, F.A.C., Permits Required	001, 002, 003, 004 & 005
Rule 62-296.320(1), F.A.C., General VOC Emissions Standard	
Rule 62-296.320(4)(b)1, F.A.C., General Visible Emissions Standard	
Rule 62-297.310 F.A.C., General Compliance Test Requirements	

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Division of Air Resource Management of the Department of Environmental Protection (Department). Copies shall be sent to each agency identified under Compliance Authority.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Central District Office. The mailing address and phone number of the Central District Office is: 3319 Maguire Boulevard, Suite 232, Orlando, FL 32803-3767 and (407) 897-4100.

3. Appendices: The following Appendices are attached as a part of this permit:
   a. Appendix A: Citation Formats and Glossary of Common Terms;
   b. Appendix B: General Conditions;
   c. Appendix C: Common Conditions;
   d. Appendix D: Common Testing Requirements;
   e. Appendix E. NSPS Subpart A – General Provisions
   f. Appendix F. NSPS Subpart KKKK – Standards of Performance for Stationary Combustion Turbines;
   g. Appendix G. NSPS Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities;
   h. Appendix H. NSPS Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines;
   i. Appendix I. List of Exempt Sources.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:

   a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4)

through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. Renewal: Prior to 60 days before the expiration date of this permit, the permittee shall apply for a renewal of the permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 60 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department. [Rule 62-4.090, F.A.C.]

9. Objectionable Odors Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

   {Note: An objectionable odor is defined in Rule 62-210.200(Definitions), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.}

10. Unconfined Emissions of Particulate Matter: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

11. Volatile Organic Compounds: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. No such devices or systems are deemed necessary or ordered by the Department. [Rule 62-296.320(1), F.A.C.; and Permit No. 0970092-001-AC]

12. Opacity: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

13. Annual Operating Report (AOR): The information required by the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Compliance Authority. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. [Rule 62-210.370(3), F.A.C.]

    {Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Compressor Turbines 1 and 2 (EU ID Nos. 001 and 002)

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
001	Solar® Mars 100-16002 15,900 break horsepower (bhp) natural gas fired combustion turbine-driven compressor unit
002	Solar® Titan 130 20,500 bhp natural gas fired combustion turbine-driven compressor unit.

{Permitting notes: These emissions units are regulated under 40 CFR 60, Subpart KKKK. Natural gas contains little or no ash, sulfur, or other contaminants, which minimizes emissions of particulate matter (PM) and sulfur dioxide (SO_2). The efficient combustion of natural gas at high temperatures results in lower emissions of carbon monoxide (CO) and volatile organic compounds (VOC). Lean premix combustion technology (SoLoNOx Dry Emission Technology) also minimizes the formation of nitrogen oxides (NO_X). An oxidation catalyst (OxCat) is used to further reduce emissions of CO and VOC. Each turbine has a separate stack which is equivalent to 9 feet in diameter and 59 feet tall. When operating at 100% power output and at the annual average ambient conditions, the stack velocity for EU 001 is approximately 50 feet per second (fps) at a temperature of approximately 917 degrees Fahrenheit (°F), whereas EU002, has a stack velocity of approximately 60 fps at a temperature of approximately 955.1 °F.}

PERFORMANCE RESTRICTIONS

1. Permitted Capacity:

   a. *Turbine 1*: The nominal maximum heat input rate to compressor Turbine 1 is approximately 118 million British thermal units per hour (MMBtu/hour), LHV, while producing approximately 15,900 bhp at International Organization for Standardization (ISO) conditions based on: a compressor inlet air temperature of 59 °F; a compressor inlet pressure of 1 atmosphere and 60% humidity; 100% load; and a lower heating value of 940 British thermal unit per standard cubic foot (Btu/scf) for natural gas.

   b. *Turbine 2*: The nominal maximum heat input rate to compressor Turbine 2 is approximately 144 MMBtu/hour, LHV, while producing approximately 20,500 bhp at ISO conditions based on: a compressor inlet air temperature of 59 °F; a compressor inlet pressure of 1 atmosphere and 60% humidity; 100% load; and a lower heating value (LHV) of 940 Btu/scf for natural gas.

   c. *Performance Curves*: Heat input rates will vary depending upon combustion turbine characteristics, load, and ambient conditions. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial testing, i.e., stack testing required for demonstration of compliance with the emissions standards in **Specific Condition 4**. Performance data shall be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.

   [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permit No. 0970092-001-AC]

2. Authorized Fuel: The turbines shall fire only natural gas with a maximum sulfur content of 20 grains per 100 standard cubic feet (20 gr. S/100 SCF). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; 40 CFR 60 Subpart KKKK; and Permit No. 0970092-001-AC]

3. Restricted Operation: The hours of operation of are not limited (8760 hours per year). Normal operation is defined as > 0 °F and between 50% and 100% load. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permit No. 0970092-001-AC]

EMISSIONS STANDARDS

4. Emissions Standards. Unless otherwise specified, the averaging period for an emissions standard is based on the averaging period specified in the applicable test method. The turbines shall not exceed the following emission limits:

a. NO_X Emissions: As determined by stack test, emissions of NO_X from each turbine shall not exceed the following emission standards (performance tests shall be conducted in accordance with 40 CFR 60.4400 to demonstrate continuous compliance):

(1) 9 parts per million by volume dry at 15% oxygen (ppmvd @ 15% O_2). *{Permitting Note: By meeting this limit between 50% and 100% load at temperature > 0°F, the applicant shows compliance with the NSPS Subpart KKKK NO_X emission limit of 25 ppmvd @15% O_2.}* [Permit No. 0970092-001-AC]

(2) 25 ppmvd @ 15% O_2. *{Permitting Note: The NSPS emissions standard of 150 ppmvd @ 15% O_2, operating at less than 75% peak load, is not applicable to combustion turbines which demonstrate compliance by stack test.}* [40 CFR 60.4320(a)]

b. SO_2 Emissions: As determined by fuel certifications, SO_2 emissions shall not exceed 0.060 lb/MMBtu heat input. *{Permitting Note: Pursuant to 40 CFR 60.4365(a) obtain a vendor certification or current tariff sheet for the fuel specifying that the maximum total sulfur content for natural gas use is 20 gr. S/100 scf.}* [40 CFR 60.4330(a)(2)]

c. $PM/PM_{10}/PM_{2.5}$ Emissions: Emissions of PM, PM with a mean diameter of 10 microns or less (PM_{10}) and PM with a mean diameter of 2.5 microns or less ($PM_{2.5}$) shall not exceed the following emission standards:

(1) As determined by fuel certifications, each turbine shall minimize $PM/PM_{10}/PM_{2.5}$ emissions with natural gas certified with a maximum sulfur content of 20 gr. S/ 100 scf.

(2) As determined by stack test, visible emissions (VE) shall not exceed 10% opacity during normal operation, based on a 30-minute test conducted annually in accordance with EPA Method 9 - Visual Determination of Opacity. This opacity standard does not apply for the first 30 minutes after a turbine has started up.

[Rule 62-4.070(3); and Permit No. 0970092-001-AC]

TESTING REQUIREMENTS

5. VE and NO_X Annual Compliance Tests: During each calendar year (January 1st to December 31st), the turbines shall be tested to demonstrate compliance with the emission standards for NO_X and opacity. If the NO_X emissions from the performance test for a turbine is less than or equal to 75 percent of the NO_X NSPS Subpart KKKK emissions limit ($\leq$ 18.75 ppm at 15% O_2), then the testing frequency of subsequent performance tests on each turbine that is equal to or less than 75% of the NO_X emission limit can be reduced to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test on a turbine exceed 75% of the NSPS Subpart KKKK NO_X emissions limit, testing on an annual basis must be resumed for that turbine. [Rules 62-4.070(3) and 62-297.310(8)(a), F.A.C.; and 40 CFR 60.4400]

6. SO_2 Emissions: Annual SO_2 emissions shall be reported based on the fuel sulfur content and the actual natural gas volume firing during the reporting year. [Rules 62-4.070(3); and 40 CFR 60.4415]

7. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required VE test and at least 30 days prior to any required NO_X test. If the proposed test schedule must be changed, the Compliance Authority may accept a shorter notice. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit and NSPS Subpart KKKK as applicable. [Rule 62-297.310(9), F.A.C.; and 40 CFR 60.7, 60.8 and 60.4400]

8. Test Methods: Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments [a]
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content (These methods shall be conducted as necessary to support the other test methods.)

7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Combustion Turbines

a. The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the Department's Office of Permitting and Compliance in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C.
b.

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; and Appendix A of 40 CFR 60]

EXCESS EMISSIONS

9. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner. [Rules 62-210.700(4) and 62-210.200(Definitions), F.A.C.]

10. Best Operational Practices (BOPs) Required: The permittee shall train and require all operators and supervisors to operate and maintain the turbines and monitoring equipment in a manner consistent with best operational practices (BOPs) for minimizing emissions at all times including during startup, shutdown and malfunction. [Rules 62-4.070(3) and 62-210.700(1), F.A.C.; and Permit No. 0970092-001-AC]

11. Malfunction Notification*:* If emissions in excess of a standard occur due to malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. [Rule 62-4.130, F.A.C.; Rule 62-204.800, F.A.C.; Rule 62-210.700(5), F.A.C.; 40 CFR 60.7; 40 CFR 60.4420]

MONITORING REQUIREMENTS

12. Monitoring of Capacity: The permittee shall monitor and record the operating rate of each turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made by monitoring daily rates of consumption of natural gas. [Rule 62-4.070(3), F.A.C.]

13. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the unit for the previous month of operation: fuel consumption, hours of turbine operation and the updated 12-month rolling totals for each. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. [Rules 62-4.070(3), F.A.C.]

RECORDS AND REPORTS

14. Fuel Sulfur Records: Compliance with the fuel sulfur limit for natural gas given in **Specific Conditions 2** and **4** shall be demonstrated by keeping reports obtained from the vendor or a current tariff sheet indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions.
[Rule 62-4.070(3), F.A.C; Rule 62-4.160(15), F.A.C.; and Permit No. 0970092-001-AC]

15. Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall

provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(10)(c), F.A.C. and in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate each turbine's percent load. [Rule 62-297.310(10), F.A.C.; 40 CFR 60.4375(b); and Permit No. 0970092-001-AC]

16. Component Replacements: For the replacement of combustion turbine components to facilitate prompt repair and return the unit to its original specifications, the permittee shall comply with the following notification and testing requirements.

    a. Components shall only be replaced with functionally equivalent "like-kind" equipment. Replacement components may consist of improved or newer equipment, but such components shall not change operation or increase the capacity (heat input and power output rates) of the combustion turbine. Replacement components that affect emissions shall be designed to achieve the emissions standards specified in all valid air permits and shall achieve these standards or better. After a component replacement, the combustion turbine compressor engine remains subject to the standards of all valid air permits. [Rule 62-210.200(169), F.A.C.; Permit No. 0970092-001-AC]

    b. The permittee shall notify the Compliance Authority within seven days after beginning any replacement of the gas generator component of the compressor engine. Within seven days of first fire on a replacement gas generator, the permittee shall submit the following information to the Compliance Authority: date of first fire and certification from the vendor that the replacement gas generator is a functionally equivalent "like-kind" component. The vendor certification shall also identify the make, model number, maximum heat input rate (MMBtu/hour), power output (bhp) at ISO conditions, and that the permitted emission rates are achievable with the replacement component. This notification may be made by letter, fax, or email. A copy of the information shall be kept on site at the compressor station. Within 60 days of restarting the unit after a gas generator replacement, the permittee shall conduct stack tests of NO_X and opacity to demonstrate compliance with the applicable emission standards. The permittee shall notify the Compliance Authority in writing at least 15 days prior to conducting these tests. If the proposed test schedule must be changed due to valid issues with equipment shakedown or test team schedules, the Compliance Authority may accept a shorter notice. The permittee shall comply with all permit requirements for test notification, test methods, test procedures, and reporting. [Rules 62-4.130, 62-4.160(2), (6), & (15) and 62-297.310(7)(b), F.A.C.; Permit No. 0970092-001-AC]

    c. After investigation and for good cause, the Department may require special compliance tests pursuant to Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.; Permit No. 0970092-001-AC]

B. Emergency Generator (EU ID No. 003)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
003	880 bhp natural gas fired spark ignition (SI) internal combustion engine (ICE) emergency generator.

EU003 is a four stroke, lean burn, natural gas-fired stationary reciprocating internal combustion engine used as an emergency generator for the Reunion Compressor Station to meet site-wide emergency electrical demands.

The following table provides important details for the emergency generator regulated as EU 003:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Waukesha Engine	880 (647 kW)	01/2017	2016	<10	Waukesha	VGF36GL

{Permitting Note: This emergency SI ICE is regulated under 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines adopted by reference in Rule 62.204.800(8)(b), F.A.C. This permit section addresses a "new" stationary emergency SI RICE with a displacement of less than 10 liters per cylinder, that has been modified, reconstructed, or commenced construction on or after June 12, 2006, and that has a post 2007 model year. In accordance with 40 CFR 63.6590(c)(6) (Subpart ZZZZ), "new" emergency stationary SI RICE engines must meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ.}

PERFORMANCE RESTRICTIONS

1. Authorized Fuel: The generator shall burn natural gas with a sulfur content no greater than 20 g S/100 scf. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0970092-001-AC]

2. Restricted Hours of Operation: Operation of the emergency generator is limited as follows:

   You must operate these emergency engines according to the requirements in paragraphs **a**. through **c**. In order for this engine to be considered emergency stationary ICE under Subpart JJJJ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in the paragraphs below, is prohibited. If you do not operate this engine according to the requirements in paragraphs **a**. through **c**., below, this engine will not be considered an emergency engine and must meet all requirements for non-emergency engines pursuant to 40 CFR 60, Subpart JJJJ. [40 CFR 60.4243(d)]

   a. *Emergency Situations*. There is no time limit on the use of this engine in emergency situations. [40 CFR 60.4243(d)(1)]
   b. *Non-Emergency Situations*. Each emergency generator may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. [40 CFR 60.4243(d)(2)(i)]
   c. *Other Non-Emergency Situations*. Each emergency generator may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **b**., above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply

power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]

d. *Stationary SI Natural Gas Fired Engines*. The engine may operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards in **Specific Condition 3**. [40 CFR 60.4243(e)]

EMISSIONS STANDARDS

3. Emissions Standards: The emergency generator shall comply to the emission standards given below for the power range:

	NO_X	CO	VOC [2]
Emergency Generator hp≥130	2.0 g/hp-hr [1]	4.0 g/hp-hr	1.0 g/hp-hr
	160 ppmvd @15% O_2	540 ppmvd @15% O_2	86 ppmvd @15% O_2

1. g/hp-hr means grams per horsepower-hour.
2. The VOC noted in this table does not include formaldehyde (HCHO)

[NSPS Subpart JJJJ, Table 1; and Permit No. 0970092-001-AC]

TESTING REQUIREMENTS

4. Operation and Maintenance. The owner or operator must operate and maintain the engine to achieve the emission standards specified in **Specific Condition 3** over the entire life of the engine. [40 CFR 60.4234]

5. Compliance Requirements: You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct performance testing every 8,760 hours or 3 years, whichever comes first, to demonstrate compliance with the emission standards specified in **Specific Condition 3.** according to the requirements specified in **Specific Condition 7**. [40 CFR 60.4243(b)(2) & (2)(ii)]

MONITORING REQUIREMENTS

6. Hour Meter. The emergency generator must have a non-resettable hour meter installed. [40 CFR 60.4237(a)]

RECORDS AND REPORTS

7. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition 5.**, the following requirements shall be met:

   a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 (Link to 40 CFR 60.8) and under the specific conditions that are specified by Table 2 of 40 CFR 60, Subpart JJJJ (Link to Table 2).
   b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
   c. You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
   d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO_X in g/HP-hr.

C_d = Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

f. When calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 3)}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

g. If you choose to measure VOC emissions using either Method 18 of 40 CFR 60, Appendix A (Link to Method 18), or Method 320 of 40 CFR 63, Appendix A (Link to Method 320), then you have the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

$C_{M\,i}$ = Measured concentration of compound i in ppmv as carbon.

$C_{A\,i}$ = True concentration of compound i in ppmv as carbon.

$$C_{imr} = RF_i \times C_{imm} \qquad \text{(Eq. 5)}$$

Where:

$C_{i\ corr}$ = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

$C_{i\ meas}$ = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{i\ corr} \qquad \text{(Eq. 6)}$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[40 CFR 60.4244]

8. Test Methods: Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content (These methods shall be conducted as necessary to support the other test methods.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources (This method shall be based on a continuous sampling train.)
18[b]	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25A	Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer

a. The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the Department's Office of Permitting and Compliance in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C.

b. EPA Method 25A is used to determine VOC. EPA Method 18 may be used provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site.

[40 CFR 60, Subpart JJJJ, Table 2]

9. Compliance Records. You must keep records of the following information:
   a. All notifications submitted to comply with this permit and all documentation supporting any notification.
   b. Maintenance conducted on the engine.
   c. Documentation that the engine meets the emission standards and operates in compliance with **Specific Condition 5.**
   d. Records of propane used during emergency operations, if any.

   [40 CFR 60.4245(a) and 60.4243(e)]

10. Hours of Operation Records. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter and must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(b)]

11. Test Reports. You must submit a copy of each performance test as conducted in **Specific Condition 7** within 60 days after the test has been completed. [40 CFR 60.4245(d)]

C. Piping Components (EU ID No. 004)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
004	Fugitive Piping Components

Fugitive emissions from equipment leaks occur during operation of the Reunion Compressor Station due to the installation of equipment and piping components. Components include flanges, connectors, valves, open-ended lines, compressor seals, pump seals, etc.

{Permitting Note: EU004 is subject to NSPS, Subparts A and OOOOa. US EPA has stated its intention to possibly reconsider or revise the requirements of Subpart OOOOa. As such, NSPS OOOOa is generally referenced in the air operation permit to simplify the incorporation of the current applicable requirements, but also simplify compliance understanding and subsequent updates should EPA move forward with the anticipated revisions to NSPS OOOOa.}

PERFORMANCE RESTRICTIONS

1. Hours of Operation: The hours of operation are not limited (8,760 hours/year, each). [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0970092-001-AC]

2. Quarterly Visual Inspections: Within the second month of each calendar quarter, the permittee shall conduct a visual inspection of the piping components to identify component leaks. The permittee shall promptly conduct any necessary maintenance, repairs or replacements to minimize fugitive emissions from piping components. The permittee shall maintain a written or electronic log of each visual inspection, the findings, and any corrective actions taken. The log shall be available for review within 10 days of conducting the visual inspection. [Rule 62-296.320(1), F.A.C.; and Permit No. 0970092-001-AC.]

FEDERAL REGULATIONS

3. NSPS Subparts A and OOOOa: The fugitive piping components are subject to NSPS Subparts A-General Provisions and OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities. See Appendices E and G, respectively. [Rule 62-204.800(8)(b)86, F.A.C.; 40 CFR 60, Subpart OOOOa]

{Permitting Note: Pursuant to NSPS, Subpart OOOOa, annual reports shall be submitted for each collection of fugitive emissions components at a compressor station that include the information specified in 40 CFR 60.5420a(b)(7). The initial annual report is due no later than 90 days after the end of the initial compliance period. The initial compliance period begins upon initial startup, and ends no later than 1 year after the initial startup date for the affected facility. The initial compliance period may be less than one full year. The permittee is proposing to submit the initial annual report by September 12, 2018.}

D. Gas Release Events (EU ID No. 005)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
005	Gas Release Events

Gas releases due to periodic blowdown of EU001 and EU002 and other events occur at the station. A gas release event refers to the intentional and unintentional venting of gas for routine operations (e.g., startup and shutdown), maintenance and emergency conditions. The majority of emissions from planned gas release events are associated with startup, shutdown, reduced-pressure demand events and maintenance activities.

PERFORMANCE RESTRICTIONS

1. Gas Releases: Gas release events are allowed for routine operations (e.g., startup and shutdown), maintenance, reduced-pressure demand events, other similar events and emergency conditions. When feasible, the permittee shall minimize the amount of gas released by proper planning. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0970092-001-AC]

2. Gas Release Event Records: The permittee shall maintain a written or electronic log of the gas release events. For each gas release event, the permittee shall identify the date, time, reason for the release, approximate duration of the release and estimated quantity of gas released. This information shall be used when estimating emissions and for future planning. [Rule 62-296.320(1), F.A.C.; and Permit No. 0970092-001-AC]