Breitburn Florida, LLC
Raccoon Point

Facility ID No. 0210031
Collier County

Title V Air Operation Permit Renewal

Permit No. 0210031-026-AV
(Renewal of Title V Air Operation Permit No. 0210031-015-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, South District

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Permit No. 0210031-026-AV
Raccoon Point
Facility ID No. 0210031
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. This permit also incorporates air construction permit nos. 0210031-025-AC and 0210031-028-AC. The existing Raccoon Point is located in Collier County 60 miles SE of Naples and 11 miles N or US 41 in Florida. UTM Coordinates are: Zone 17, 509.6 East and 2873.4 North. Latitude is: 25/58/45 North; and, Longitude is: 80/54/13 West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: ***January 3, 2012***
Renewal Application Due Date: ***May 22, 2017***
Expiration Date: ***January 2, 2017***

_____
Jon M. Iglehart
Director of
District Management

JMI/SRM/jw

Subsection A. Facility Description.

The existing facility is a crude oil and natural gas production facility. The facility consists of five (5) well pads, three (3) of which are active. Each well pad has one to three oil production wells [six (6) total]. With the exception of one (1) well which has a conventional rod and positive displacement pump, the submersible pumps for the production wells are electrical with electricity furnished by a gas turbine or engine/generator sets. The existing facility consists of thirteen (13) reciprocating internal combustion engines (RICE) [ten (10) spark ignition (SI), three compression ignition (CI)] and one turbine. Four (4) engines are equipped with non-selective catalytic reduction (NSCR) three way catalyst and one (1) engine is equipped with an oxidation catalytic converter. The facility has six (6) crude oil storage tanks and a flare which burns excess produced gas or excess vapors from the storage tanks. The produced crude oil/natural gas is routed to free water knockout vessels, treaters, then to storage tanks. The facility includes a vapor recovery system which collects vapors from the storage tanks. The facility has a natural gas treatment system that consists of two (2) adsorption beds which operate in series to remove H_2S from the produced natural gas. The manufacturer of the adsorption beds is SulfurTreat Company. The treatment system has a design H_2S removal efficiency of 99.6%. The facility demonstrated that the produced natural gas does meet the definition of natural gas per Subpart GG.

The engines are subject to 40 CFR 63 Subparts A and ZZZZ, General Provisions and National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, respectively. The turbine is subject to 40 CFR 60 Subparts A and GG, General Provisions and Standards of Performance for Stationary Gas Turbines, respectively.

This permit incorporates air construction permit nos. 0210031-025-AC and 0210031-028-AC.

The existing facility is a Prevention Significant Deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	One Flare
002	Crude Oil Storage Tanks
004	One 80 HP SI RICE
008	Two 108 HP SI RICE (One is standby only)
009	Two 221 HP SI RICE (One is standby only)
012	Two 295 HP SI RICE
013	One 800 kW Gas Turbine
020	One 625 HP SI RICE
023	One 600 HP SI RICE
024	One 980 HP CI ICE
029	One 1,764 HP CI ICE
030	One 939 HP CI ICE
031	One 1,818 bhp SI RICE.

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received Aug 23, 2010, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
40 CFR 60, Subpart A, General Provisions	013
40 CFR 60, Subpart GG – Standards of Performance for Stationary Gas Turbines	013
40 CFR 63, Subpart A – General Provisions	004, 008, 009,012, 020, 023, 024, 029, 030, 031
40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	004, 008, 009,012, 020, 023, 024, 029, 030, 031
62-296.320	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62.210.370	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-213.440	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-4.160	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-213.205	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62.210.360	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-210.300	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-213.420	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-297.310	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-213.400	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-210.650	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-213.412	004, 008, 009, 012, 020, 023, 024, 029, 030, 031
62-296.100	004, 008, 009, 012, 020, 023, 024, 029, 030, 031

SECTION II. FACILITY-WIDE CONDITIONS

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

EMISSIONS AND CONTROLS

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means 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. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to 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. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Unconfined 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. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Chemical or water application to unpaved roads and production pad areas.
b. Paving and maintenance of roads, parking areas and yards.
c. Landscaping or planting of vegetation.

[Rule 62-296.320(4)(c), F.A.C.]

ANNUAL REPORTS AND FEES

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Annual Operating Report (AOR). The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. The owner operator shall identify in the AOR each emissions unit by its emissions unit's ID number and the corresponding emissions unit's serial number. [Rules 62-210.370(3), F.A.C.; 62-4.070(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. A copy shall also be submitted to EPA at E.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta, GA 30303. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW10. Production Rate Limit. The production rate of crude oil for the facility is limited to 7,500 bbl per day and the annual capacity is 2,737,000 bbl. [Permit No. 0210031-009-AC]

FW11. Area Sources That Become Major Sources. If the facility increases its emissions or its potential to emit such that it becomes a major source of HAP, the following compliance dates apply to emissions units subject to 40 CFR 63 Subpart ZZZZ:

a. Any stationary RICE for which construction or reconstruction is commenced after the date when the owner or operator of an area source becomes a major source of HAP must be in compliance with 40 CFR 63 Subpart ZZZZ upon startup of the owner or operator r affected source.

b. Any stationary RICE for which construction or reconstruction is commenced before the owner or operator of an area source becomes a major source of HAP must be in compliance with the provisions 40 CFR 63 Subpart ZZZZ that are applicable to RICE located at major sources within 3 years after the owner or operator of an area source becomes a major source of HAP.

[40 CFR 63.6595(b)]

{Permitting Note: Emission units 004, 008, 009, 012, 020, 023, 024, 029, 030 and 31 are subject to 40 CFR 63 Subpart ZZZZ. The facility is currently a minor source for HAPs.}

FW.12. Produced Natural Gas Analysis. The owner or operator shall conduct a fuel analysis of the facility's wellheads' casinghead gas annually. The casinghead gas sample shall be taken after treatment and prior to burning in the engines. The analysis shall include analysis for total sulfur. The Department may, after reviewing the fuel analysis test results, request additional fuel compliance testing to be conducted. [Rule 62-4.070(3), F.A.C.]

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
001	Flare. **Emission unit 001** is a Flare King, Inc. (Model 5FKAVP-H25-R2S-E) flare. The flare is used to combust excess produced natural gas and excess vapors from crude oil storage tanks. A flow meter is used to monitor the gas flow to the flare. The stack height is 25 feet and the exit diameter is 0.1 feet. The flare has a tip diameter of 0.75".

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

A.1. Permitted Capacity. Waste gas to the flare system shall not exceed 6.08 mmcf per month. [Rules 62-4.160(2), 62-204.800, and 62-210.200(PTE), F.A.C.; and Permit No. AC11-255336]

A.2. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Permit No. AC11-255336]

A.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

Unless otherwise specified, the averaging time for Specific Condition **A.4.** is based on the specified averaging time of the applicable test method.

A.4. Visible Emissions (VE). VE shall not exceed 10% opacity. [Permit No. AC11-255336]

EXCESS EMISSIONS

A.5. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C]

MONITORING OF OPERATIONS

A.6. Gas Flow. The owner or operator shall continually monitor the gas flow to the flare using a flow meter. [Rule 62-4.070(3), F.A.C.]

TEST METHODS AND PROCEDURES

A.7. Test Methods. Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above 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 unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C., Permit No. AC11-255336]

A.8. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.9. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU001 shall be tested to demonstrate compliance with the emissions standards for **VE**. If the flare is unable to be tested during a federal fiscal year due to intermittent operation, a VE test is required to be conducted at the next available opportunity when the flare is operating for a sufficient period of time to allow a VE test to be conducted. [Rules 62-297.310(7), and 62-4.070(3), F.A.C.]

A.10. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **VE** once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **A.4.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

A.11. VE Test Methods. Visible emissions testing shall be conducted using EPA Method 9. [Permit No. AC11-255336]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

A.13. Gas Flow Recordkeeping. The owner or operator shall maintain monthly record keeping of the total gas flow to the flare. These records shall be available to the Department for inspection. The records shall include the monthly total gas flow and the yearly total gas flow. [Permit No. AC11-255336]

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
013	One 800 kW Gas Turbine Set. **Emission unit 013** is an 800 kW Solar Saturn (Model T1301) gas turbine/generator set. The turbine/generator set is used to power electric submersible oil well pumps. The turbine does not use steam or water injection to control NO_X emissions. The turbine was purchased, installed and placed into service in 1996. The turbine's stack specifications are: the height is 20 feet, the exit diameter is 2 feet, the exit temperature is 916 °F and the actual volumetric flow rate is 29,200 acfm. This emissions unit is subject to 40 CFR 60 Subparts A and GG, General Provisions and Standards of Performance for Stationary Gas Turbines, respectively. Monitoring the nitrogen content of the fuel being fired and sampling to determine the daily fuel nitrogen concentrations as required by Subpart GG is not required if the owner or operator elects to not claim an allowance for fuel bound nitrogen in accordance with Subpart GG (Federal Register Vol. 69, No. 130, July 8, 2004, page 41348). Per the Title V renewal application received August 23, 2010 and correspondence dated June 6, 2011, the owner or operator does not claim an allowance for fuel bound nitrogen. Additionally, the applicant demonstrated in accordance with Subpart GG that the produced natural "casing" gas meets the Subpart GG definition for "natural gas." Test results were received by the Department on June 14, 2011. Therefore, the owner or operator is not required to monitor the total sulfur content of the gaseous fuel being fired in the turbine. Fuel oil, however, must still comply with emissions standards and monitoring in accordance with Subpart GG.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

B.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input
013	13.9

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. 0210031-002-AC]

B.2. Methods of Operation.

a. *Fuels Types.* The fuels that are allowed to be burned in this unit during start-up and normal operations are:
   i. Produced Natural (casing) gas;
   ii. Commercial Natural Gas;
   iii. Propane; and
   iv. No. 2 Fuel oil (diesel) with maximum sulfur content of 0.5%.

b. *Fuel Limitations*.
   i. No fuels can be burned that contain sulfur in excess of 0.5% sulfur by weight.

[Rule 62-213.410, F.A.C.; Permit Nos. 0210031-002-AC, 0210031-028-AC]

B.3. Hours of Operation. This emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 0210031-002-AC]

B.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.5. Emission Unit Relocations. EU013 may be relocated within the Raccoon Point Facility as necessary in response to production requirements. [Rule 62-4.070(3), F.A.C., Permit No. 0210031-028-AC]

EMISSION LIMITATIONS AND STANDARDS

Unless otherwise specified, the averaging time(s) for Specific Conditions **B.6.-B.8**. are based on the specified averaging time of the applicable test method.

B.6. VE. VE shall not exceed 20% opacity. [Permit No. 0210031-002-AC]

B.7. NO_X Federal Standards. No owner or operator shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150\frac{(14.4)}{Y} + F$$

where:
STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1) NO_X emission concentration (percent by volume at 15 percent oxygen and on a dry basis),
Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and
F = NO_X emission allowance for fuel-bound nitrogen as defined in Specific Condition **B.7.b**.

a. The use of F in the equation in Specific Condition **B.7**. above is optional. That is, the owner or operator may choose to apply a NO_X allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with 40 CFR 60.332(a)(4) or may accept an F-value of zero.
b. If the owner or operator elects to apply a NO_X emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under 40 CFR 60.8 as follows:

Fuel-bound nitrogen (percent by weight)	**F (NO_X percent by volume)**
$N \leq .015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	0.004+0.0067(N–0.1)
$N > 0.25$	0.005

Where:
N = the nitrogen content of the fuel (percent by weight).

[40 CFR 60.332(a)(2), (3) and (4) and 60.322(c) and (d); Permit No. 0210031-028-AC]

{Permitting Note: The owner or operator elected to not take an emissions allowance for fuel bound nitrogen.}

B.8. SO_2 Standards.

a. No owner or operator shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.633]
b. No owner or operator shall burn fuels which contain sulfur in excess of 0.5 percent by weight. [Permit No. 0210031-028-AC]

TEST METHODS AND PROCEDURES

B.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	**Description of Method and Comments**
9	Visual Determination of the Opacity of Emissions from Stationary Sources
Other	Test methods identified in 40 CFR 60 Subpart GG and 40 CFR 60 Subpart A

The above 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 unless prior written approval is received from the Department. [Rules 62-297.401, F.A.C., Permit No. 0210031-002-AC, 40 CFR 60 Subparts A and GG]

B.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU013 shall be tested to demonstrate compliance with the emissions standards for **VE**. [Rule 62-297.310(7), F.A.C. and Permit No. 0210031-002-AC]

B.12. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **VE** once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **B.6.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

B.13. Visible Emissions. The test method for visible emissions shall be EPA Method 9. [Permit No. 0210031-002-AC]

B.14. Fuel Sulfur Monitoring. The owner or operator shall monitor the total sulfur content of the fuel being fired in the turbine, in accordance with the requirements in 40 CFR 60.334(h) and (i) and 40 CFR 63.335(b)(10). [40 CFR 60.334(h) and (i) and 40 CFR 63.335(b)(10)]

[Permitting Note: The owner or operator has demonstrated that the natural "casing" gas meets the definition of "natural gas" in 40 CFR 60 Subpart GG (test date May 3, 2011, correspondence dated June 6, 2011). Therefore, this emissions unit is not subject to monitoring requirements of Subpart GG when using natural gas (casing or commercial). However, this emissions unit is required to comply with Subpart GG emission standards and monitoring for any other authorized fuel type used in the turbine such as fuel oil.]

RECORDKEEPING AND REPORTING REQUIREMENTS

B.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

B.16. Monthly Recordkeeping. Emissions limitations and standards compliance shall be demonstrated through monthly recordkeeping (not a monthly report). These records shall be available to the Department for inspection. The records for each emission unit shall include:

a. Month, year; and
b. Type and amount of the fuel burned.

[Permit 0210031-002-AC]

B.17. Subpart GG Excess Emissions Reports. For each affected unit that elects to periodically determine the fuel sulfur content or fuel nitrogen content, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with the requirements in 40 CFR 60.334(j) and 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. Excess emissions reports shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.334(j)]

{Permitting Note: The owner or operator elected to not take an emissions allowance for fuel bound nitrogen and therefore is not subject to the nitrogen oxides excess emissions requirements in 40 CFR 63.334.}

OTHER REQUIREMENTS

B.18. Federal Rule Requirements. In addition to the specific conditions listed above, this emissions unit is subject to the requirements in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines. [Rule 62-213.440, F.A.C.]

Subsection C. Emissions Units 004, 008, 009, 012, 020, 023, 024, 029, 030, 031

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
004	One 80 HP spark ignition (SI) reciprocating internal combustion engine (RICE). **Emission unit 004** is an existing skid-mounted 80 HP four stroke rich burn (4SRB) (Waukesha Model 817G) SI RICE (S/N 365150). The engine powers an oil well pumping unit. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 8 feet height, an exit diameter of 0.2 feet, an exit temperature of 1050 °F, and an actual volumetric flow rate of 100 acfm. The engine was constructed before June 12, 2006.
008	Two 100 HP SI RICE (One is standby unit only). **Emission unit 008** is two existing 100 HP 4SRB SI RICE (Waukesha Model 817G). The engines power crude oil pipeline pumps that transfer crude oil from the crude oil storage tanks to a crude oil pipeline for off site distribution. One of the two engines under EU008 is designated as a standby unit only. O*nly one engine is authorized to operate at any given time*. Each engine is a non-emergency, non-black start engine. Each engine stack has the following specifications: 8 feet height, 0.2 feet exit diameter, 1060 °F exit temperature, and actual volumetric flow rate of 200 acfm. The engines were constructed before June 12, 2006. *{Permitting Note: Potential emissions for EU008 are based only on one engine.}*
009	Two 150 HP SI RICE (One is standby unit only). **Emission unit 009** is two existing skid-mounted 150 HP 4SRB SI RICE (Waukesha Model No. 1905G). The engines supply the general power (lighting, pumps, etc.) for Pad 2. One of the two engines under EU009 is designated as a standby unit only. O*nly one engine is authorized to operate at any given time*. The engines are a non-emergency, non-black start engine. Each engines' stack has the following specifications: 8 feet height, 0.2 feet exit diameter, 1060 °F exit temperature, and actual volumetric flow rate of 200 acfm. The engines were constructed before June 12, 2006. *{Permitting Note: Potential emissions for EU009 are based only on one engine.}*
012	Two 350 HP SI RICE E**mission unit 012** is two existing skid-mounted 350 HP 4SRB SI RICE (Waukesha 3521 G). The engines are used to power submersible oil well pumps. Each engine controls emissions with a non-selective catalytic reduction (NSCR) three way catalyst. The engines are a non-emergency, non-black start engine. Each engine's stack has the following specifications: 8 feet height, 0.4 feet exit diameter, 1135 °F exit temperature, and actual volumetric flow rate of 585 acfm. The engines were constructed before June 12, 2006.
020	One 625 HP SI RICE **Emissions unit 020** is an existing skid-mounted 625 HP 4SRB SI RICE (Caterpillar Model G398). The engine is equipped with a non-selective catalytic reduction (NSCR) three way catalyst. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 15 feet height, 1 feet exit diameter, 1110 °F exit temperature, and actual volumetric flow rate of 3000 acfm. The engine was constructed before June 12, 2006.
023	One 738 HP SI RICE **Emissions unit 023** is an existing 738 HP 4SRB SI RICE (Waukesha Model No. 3521 GSI). The engine is equipped with a non-selective catalytic reduction (NSCR) three way catalyst. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 8 feet height, 0.4 feet exit diameter, 1140 °F exit temperature, and actual volumetric flow rate of 1000 acfm. The engine was constructed before June 12, 2006.

024	One 981 bhp compression ignition (CI) ICE **Emission unit 024** is a 981 brake horsepower (bhp) CI IC diesel engine/generator set (Caterpillar Model D399-TA) with an oxidation catalytic converter to reduce CO and VOC emissions. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 16 feet height, 1.2 feet exit diameter, 730 °F exit temperature, and actual volumetric flow rate of 4,600 acfm. *{Permitting Note: EU024's potential to emit emissions are based on a 75% load.}*
029	One 1,764 HP CI ICE **Emissions unit 029** is a 1,764 HP (Caterpillar Model 3512 TA) IC diesel engine/generator set. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 16 feet height, 0.82 feet exit diameter, 1,010 F exit temperature, and actual volumetric flow rate of 10,200 acfm. The engine/generator set was initially manufactured in 1993.
030	One 939 HP CI ICE **Emissions unit 030** is a 939 HP (Caterpillar Model D-398) IC diesel engine/generator set. The engine is a non-emergency, non-black start engine. The engine's stack has the following specifications: 17 feet height, 0.8 feet exit diameter, 890 F exit temperature, and actual volumetric flow rate of 5,300 acfm. The diesel engine/generator set was initially manufactured in 1971.
031	One 1,818 brake horsepower (bhp) SI RICE **Emissions unit 31** is a 1,818 bhp four-stroke lean burn (4SLB) (Caterpillar Model G3516B LE) non-emergency, non-black start, SI RICE/generator set. The SI RICE was manufactured in 2001. The engine is a non-emergency, non-black start engine. The engine/generator stack specifications are: height 15 feet; exit diameter 0.7 feet; exit temperature 990 °F; and actual volumetric flow rate 11,500 acfm.

Emission units 004, 008, 009, 012 020, 023, 024, 029, 030 and 31 are subject to 40 CFR 63 Subparts A and ZZZZ, General Provisions and National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

C.1. Permitted Capacity/Method of Operation. The maximum allowable heat input rate and the fuels that are allowed to be burned in this unit during start-up and normal hours of operation are as follows:

EU No.	Heat Input MMBtu/hr	Fuels
004	0.64[(a)]	Produced Natural (well casing) Gas[(a)]
		Commercial Natural Gas[(i)]
		Propane[(a)]
008	1[(b)]	Produced Natural Gas[(b)]
		Commercial Natural Gas[(i)]
		Propane[(i)]
009	2[(b)]	Produced Natural Gas[(b)]
		Commercial Natural Gas[i)]
		Propane[(i)]
012	4[(c)]	Produced Natural Gas[(c)]
		Commercial Natural Gas[(i)]
		Propane[(i)]

020	5.22[d]	Produced Natural (casing) Gas.[d]
		Commercial Natural Gas[i]
		Propane.[d]
023	5.8[e]	Produced Natural (casing) Gas. [e]
		Commercial Natural Gas[i]
		Propane[e]
024	7.44[f]	Diesel fuel oil with a maximum sulfur content of 0.05%[c].
029	12.4[g]	Ultra low sulfur diesel (USLD) Fuel oil with a maximum sulfur content of 0.0015% sulfur by weight. [g]
030	7.2[g]	Ultra low sulfur diesel (ULSD) Fuel oil with a maximum sulfur content of 0.0015% sulfur by weight.[g]
031	14.2	Produced Natural (casing) Gas. [h]
		Commercial Natural Gas[h]
		Propane[h]

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; [a]Permit No. 0210031-010-AC, [b]Permit No. AC11-255336, [c]Permit No. 0210031-012-AC, [d]Permit No. 0210031-003-AC, [e]Permit No. 0210031-005-AC, [f]Permit No. 0210031-006-AC, [g]Permit No. 0210031-019-AC, [h]0210031-025-AC, [i]Permit No. 0210031-028-AC]

C.2. Operating Restrictions**.** Only one of the two engines for EU008 and only one of the two engines for EU009 may operate at any given time. [Rule 62-4.070(3), F.A.C.; Permit No. AC11-255336]

C.3. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Permit Nos. AC11-255336, 0210031-003-AC, 0210031-005-AC, 0210031-010-AC, 0210031-012-AC, 0210031-019-AC, 0210031-025-AC]

C.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

C.5. Emission Unit Relocations. The emissions units that are skid mounted may be relocated within the Raccoon Point Facility as necessary in response to production requirements. [Rule 62-4.070(3), F.A.C., Permit No. 0210031-019-AC]

C.6. Nameplates Required. The owner or operator shall always maintain nameplates on each engine/generator that includes the serial number, make/model, and horsepower (HP) of the engine. [Rule 62-4.070(3), F.A.C., Permit No. 0210031-025-AC]

C.7. Temporary Use Replacement Rental IC Engines. The owner or operator may temporarily use replacement rental IC engines that are equal to or smaller in size to the engine being temporarily replaced if the following conditions are met:

a. *Verbal Notification Prior to Relocation*. Verbal notification shall be provided to the Department prior to relocating a temporary rental engine on-site at the Raccoon Point facility.
b. *Written Notification of Relocation*. Written notification shall be provided to the Department within seven days of relocating a rental engine on site. Written notification shall include the following information:
   i. Identification of the engine being replaced (emission unit number and current facility location)
   ii. Identification of the rental engine including make/model, maximum heat input, HP and maximum kW.
   iii. Date the rental engine was brought on-site and started operating at the facility; and
   iv. Expected period of time the rental engine will be operated at the facility.
c. *Written Notification of Removal*. Written notification shall be provided to the Department with the date the rental engine is removed from site.
   [Rule 62-4.070(3), F.A.C., Permit No. 0210031-025-AC]

EMISSION LIMITATIONS AND STANDARDS

Unless otherwise specified, the averaging time(s) for Specific Condition **C.8** are based on the specified averaging time of the applicable test method.

C.8. Emission Limitations. The emissions units' emissions shall not exceed the following:

EU No.	VE (opacity)	Other Emissions Limits
004	20%[a]	----------
008	10%[b]	----------
009	10%[b]	----------
012	10%[b]	----------
020	20%[d]	Formaldehyde Emissions Limits. In accordance with 40 CFR 63 Subpart ZZZZ, the owner or operator must limit the concentration of formaldehyde in each EU's exhaust to 2.7 ppmvd at 15 percent O_2 or reduce formaldehyde emissions by 76 percent or more. The owner or operator must be in compliance with this emissions limit by October 19, 2013. [40 CFR 6333.03(a)]
023	20 %[e]	
024	20%[f]	Carbon Monoxide Emissions. In accordance with the following requirements in 40 CFR 63 Subpart ZZZZ, the owner or operator must limit the concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2 or reduce the CO emissions by 70 percent or more. The owner or operator must be in compliance with this emissions limit by May 3, 2013. [40 CFR 63.6603(a) and 63.6640(a)]
029	20%[i]	
030	20%[i]	
031	10%[h]	----------

[[a]Permit No. 0210031-010-AC, [b]Permit No. AC11-255336, [d]Permit No. 0210031-003-AC, [e]Permit No. 0210031-005-AC, [f]Permit No. 0210031-006-AC, [i]Permit No. 0210031-019-AC, [h]Permit No. 0210031-025-AC, and 40 CFR 63 Subpart ZZZZ]

TEST METHODS AND PROCEDURES

C.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
Other	Tests required by 40 CFR 63 Subpart ZZZZ and Subpart A

The above 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 unless prior written approval is received from the Department. [62-297.401, F.A.C., Permit Nos. AC11-255336, 0210031-003-AC, 0210031-005-AC, 02210031-006-AC, 0210031-010-AC, 0210031-019-AC, 0210031-025-AC, 0210031-028-AC, and 0210031-019-AC]

C.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each emissions unit shall be tested to demonstrate compliance with the emissions standards for **VE.** [Rule 62-297.310(7), F.A.C.; Permit Nos. 0210031-010-AC, AC11-255336, 0210031-003-AC, 0210031-005-AC, 0210031-019-AC, 0210031-025-AC and 0210031-006-AC]

C.12. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **VE** once every 5 years for each EU. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **C.8.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

C.13. VE Test Method. The test method for VE shall be EPA Method 9 as published in 40 CFR 60 Appendix A. [Rule 62-297.310(4)(a)2, F.A.C.; Permit Nos. AC11-255336, 0210031-003-AC, 0210031-005-AC, 02210031-006-AC, 0210031-010-AC, 0210031-019-AC, 0210031-025-AC, 0210031-028-AC, 0210031-019-AC, 0210031-025-AC, and 0210031-028-AC]

C.14. Sulfur Content (Applies only for EU024, EU029, EU030). For this facility, compliance with fuel oil sulfur limits are to be determined based on a certification from the fuel supplier. [Rule 62-297.310(7)(c)]

RECORDKEEPING AND REPORTING REQUIREMENTS

C.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

C.16. Monthly Recordkeeping. The owner or operator shall maintain monthly recordkeeping of the following:

a. Running time for each emissions unit.
b. Type and amount of fuel burned in each emissions unit.

These records shall be available to the Department for inspection.
[Permit Nos. AC11-255336, 0210031-010-AC, 0210031-003-AC, 0210031-005-AC, 0210031-006-AC, 0210031-019-AC]

C.17. Fuel Recordkeeping (Applies only for EU024, EU029, EU030)**.** The permittee shall maintain records of fuel oil sulfur content and oil consumption for EU024, EU029 and EU030. These records are to demonstrate that each shipment of fuel oil is "Ultra Low Diesel (ULSD) fuel oil at 0.0015% percent or less sulfur and that the sulfur content was determined by ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4294-90, adopted and incorporated by reference in subsection 62-297.440(1), F.A.C. [Permit No. 0210031-019-AC]

C.18. Identification of Emissions Units and Additional Information in Compliance Reports and AORs. The following information shall be included in all compliance reports and AORs:

a. *Serial Numbers and EU IDs.* The owner operator shall identify all emissions units by the emissions unit's ID and the corresponding number serial number.
b. *Emissions and Fuel Usage from Temporary Engines*. Temporary use rental engines' emissions and fuel usage (type and amount of fuel) shall be included (combined) with the emissions and fuel usage for the emission unit that was temporarily replaced. Emissions and fuel usage from only the rental engine shall also be specified.
c. *Emissions and Fuel Usage from EUs With More than One Engine*. Emissions units that include two engines or standby engines shall report each individual engine's operating time, emissions and fuel usage.

[62-4.070(3), F.A.C., Permit No. 0210031-025-AC]

OTHER REQUIREMENTS

C.19. Federal Rule Requirements. In addition to the specific conditions listed above, these emissions units are also subject to the requirements in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The owner or operator must be in compliance with the requirements in 40 CFR 60 Subpart ZZZZ by May 3, 2013 for emissions units 024, 029, and 030. The owner or operator must be in compliance with the requirements in 40 CFR 60 Subpart ZZZZ by October 19, 2013 for emissions units 004, 008, 009, 012, 020, 023, and 031. [Rule 62-213.440, F.A.C.]

Subsection D. Emissions Units 002

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
002	Crude Oil Storage Tanks

Emissions unit 002 consists of two 5,000 barrel (bbl) and four 1,000 bbl crude oil storage tanks. Vapors are collected and routed to a recycled gas compressor for combustion in RICE or, if there is excess gas, for combustion in the flare (EU001). (Tanks are to be fixed roof type with vacuum/pressure conservation vents to prevent loss of vapor to atmosphere under ambient pressures).

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

D.1. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 0210031-024-AC]

D.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

D.3. Recordkeeping. The owner or operator shall maintain monthly record keeping. These records shall be available to the Department for inspection. The records for each tank shall include:

a. Product stored, and
b. Throughput of the product.

[Permit No. 0210031-024-AC]

SECTION IV. APPENDICES

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart GG – Standards of Performance for Stationary Gas Turbines.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.