



State of Mississippi

AIR POLLUTION CONTROL PERMIT

To Construct Air Emissions Equipment



THIS CERTIFIES

Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station

4585 Smith Station Road

Edwards, MS

Hinds County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified: October 24, 2017

Expires:

Permit No. 1080-00250

Agency Interest # 39671

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Title V Permit to Operate Air Emissions Equipment
 Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station
 Subject Item Inventory
 Permit Number: 1080-00250
 Activity ID No.: PER20170001

Subject Item Inventory:

ID	Designation	Description
AI39671	39671	Natural Gas Compressor Station
AREA1	AA-012	Truck Loading Operation
EQPT1	AA-001	6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Reference Number: Comp-1)
EQPT2	AA-002	6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 2)
EQPT3	AA-003	6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 3)
EQPT4	AA-004	6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 4)
EQPT7	AA-007	5796 Gallon Vertical Condensate Storage Tank (TANK -1)

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Subject Item Groups:

ID	Description	Components
GRPT1	Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004	EQPT1 6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Reference Number: Comp-1)
		EQPT2 6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 2)
		EQPT3 6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 3)
		EQPT4 6135 hp (ISO) natural gas-fired reciprocating internal combustion compressor engine equipped with a catalytic converter/silencer (Facility Ref. No. Comp 4)
GRPT2	Storage Tanks	EQPT7 5796 Gallon Vertical Condensate Storage Tank (TANK -1)
		EQPT8 6300 Gallon Vertical Distillate Oil Tank (Facility Ref. No. TANK -2)
		EQPT9 5796 gallon Vertical Used Oil Tank (Facility Ref. No. TANK - 3)
		EQPT10 5796 Gallon Vertical Ethylene Glycol Tank (Facility Ref. No. TANK -4)
		EQPT11 5796 Gallon Vertical Wastewater Tank (Facility Ref. No. TANK - 5)

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KEY

ACT = Activity

AREA = Area

CONT = Control Device

IA = Insignificant Activity

MAFO = Animal Feeding Operation

RPNT = Release Point

WDPT = Withdrawal Point

AI = Agency Interest

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

IMPD = Impoundment

PCS = PCS

TRMT = Treatment

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AI0000039671 (39671) Natural Gas Compressor Station:

Submittal/Action Requirements:

Condition No.	Condition
S-1	Submit compliance certifications per 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5). and 40 CFR 70.6(c)(5)(iv): Due annually, by the 31st of January for preceding calendar year. [Compliance Use]
S-2	Submit certified semiannual monitoring reports per 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3). and 40 CFR 70.6(a)(3)(iii)(A): Due semiannually, by the 31st of January and July for preceding six months. [Compliance Use]

Narrative Requirements:

Condition No.	Condition
T-1	The permittee shall comply with all emission limitation requirements of the Air Title V permit. [Compliance Use]
T-2	The permittee shall comply with all recordkeeping requirements of the Air Title V permit. [Compliance Use]
T-3	The permittee shall comply with all reporting requirements of the Air Title V permit. [Compliance Use]
T-4	The permittee shall comply with all monitoring requirements of the Air Title V permit. [Compliance Use]
T-5	The permittee shall comply with all other requirements of the Air Title V permit. [Compliance Use]

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Carbon Monoxide	Carbon Monoxide: The permittee shall have exhaust emissions of CO less than 4.0 g/HP-hr or 540 ppmvd @15% O2. [40 CFR 60.4233(e), 40 CFR 60_SUBPART JJJJ.Table 1]
L-2	Carbon Monoxide	<p>Carbon Monoxide: Emission Points AA-001, AA-002, AA-003 and AA-004 are new 4SLB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; therefore, the permittee shall comply with the requirement to reduce CO emissions by 93 percent or more utilizing an oxidation catalyst except during startup, shutdown, and malfunction in accordance with Table 2a of Subpart ZZZZ. The permittee shall only operate the compressor engine with emissions controlled by the oxidation catalyst. The oxidation catalyst shall be operated in the following manner:</p> <p>(1) The permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from pressure drop across the catalyst that was measured during the initial performance test.</p> <p>(2) The permittee shall maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 degree F and less than or equal to 1350 degree F.</p> <p>. [40 CFR 63.6600(b), 40 CFR 63_Subpart ZZZZ.Tables 2a and 2b, 40 CFR 63.6605(a)]</p>
L-3	Nitrogen oxides	Nitrogen oxides: The permittee shall have exhaust emissions of NOx less than 2.0 G/HP-hr or 160 ppmvd @15% O2. [40 CFR 60.4233(e), 40 CFR 60_SUBPART JJJJ.Table 1]
L-4	Opacity	Opacity: For each compressor engine, the permittee shall have emissions of Opacity less than or equal to 40% as determined by EPA Reference Method 9, 40 CFR 60 Appendix A. [APC-S-1 3.1(a)]
L-5	VOC	VOC: The permittee shall have exhaust emissions of VOC (excluding formaldehyde) less than 1.0 g/HP-hr or 86 ppmvd @ 15% O2. [40 CFR 60.4233(e), 40 CFR 60_SUBPART JJJJ.Table 1]

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Limitation Requirements:

Condition No.	Parameter	Condition
L-6	Applicability	Applicability: Emission Point AA-001, AA-002, AA-003 and AA-004 are stationary spark ignition (SI) internal combustion engines (ICE) manufactured after July 1, 2007 that have a maximum engine power greater than 500 HP; therefore, the permittee shall comply with all applicable requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60 Subpart JJJJ and of the General Provisions, Subpart A. [40 CFR 60.4230 (a)(4)(i)]
L-7	Applicability	Applicability: Emission Points AA-001, AA-002, AA-003 and AA-004 are new 4SLB stationary RICE located at a major source of HAPs which commenced construction after December 19, 2002; therefore, the permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6590(a)]
L-8		The permittee shall only fire pipeline quality natural gas. The firing of unprocessed field gas is not allowed. [APC-S-2 II.B (10)]

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>For each Emission Point, the permittee shall demonstrate compliance with the emission standards specified in 40 CFR 60.4233(e) according to one of the methods specified in paragraphs (1) and (2) of this condition.</p> <p>(1) Purchasing an engine certified according to procedures specified in 40 CFR Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in paragraph 40 CFR 60.4243(a). If the permittee operates and maintains the certified engine according to the manufacturer's emission-related written instructions, compliance may be demonstrated by keeping records of conducted maintenance, and no performance testing is required. If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(iii)</p> <p>(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(e) and according the requirements specified in 40 CFR 60.4244, as applicable, and according to paragraph (2)(i) of this condition.</p> <p>(i) The permittee shall 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, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [40 CFR 60.4243(b)(1), 40 CFR 60.4243(b)(2) (ii)]</p>

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GRPT000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Monitoring Requirements:

Condition No.	Parameter	Condition
M-2		40 CFR 60 Subpart JJJJ Testing Requirements (a) Each performance test must be conducted within 10% of the highest achievable load and must comply with the testing requirements listed in 40 CFR 60.8 and Table 2 of Subpart JJJJ. (b) Performance test may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8 (c) If the engine is non-operational when a performance test is due, the engine does not need to be started up just to test it, but will need to be tested immediately upon startup. (c) Three separate test runs must be conducted for each performance test as specified by 60.8(f). Each run must be within 10% of max load and be at least 1 hour in duration. (d) To determine compliance with the NO _x , CO and VOC mass per unit output emission limitations, the measured concentration must be converted using the equations outlined in section 60.4244 of Subpart JJJJ. . [40 CFR 60.4244]
M-3		For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must install a continuous parameter monitoring system (CPMS) as specified in Table 5 of 40 CFR 63 Subpart ZZZZ. The permittee must install, operate and maintain each CPMS according to the requirements in 40 CFR 63.8. [40 CFR 63.6625(b)]

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Monitoring Requirements:

Condition No.	Parameter	Condition
M-4		<p>For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must demonstrate initial compliance with the emission and operating limitations by demonstrating the following:</p> <p>(1) the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and</p> <p>(2) the permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in section 63.6625(b); and</p> <p>(3) The permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. [40 CFR 63.6630(a), 40 CFR 63_Subpart ZZZZ.Table 5]</p>
M-5		<p>For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must demonstrate continuous compliance by:</p> <p>(1) Conducting semiannual performance test for CO to demonstrate that the required CO percent reduction is achieved; and</p> <p>(2) Collecting the catalyst inlet temperature data according to 40 CFR 63.6625(b); and</p> <p>(3) Reducing these data to 4-hour rolling averages; and</p> <p>(4) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>(5) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. [40 CFR 63.6640(a), 40 CFR 63_Subpart ZZZZ.Table 6]</p>
M-6		<p>The permittee shall monitor fuel usage, including type and quantity of fuel used. [APC-S-2 II.B(11)]</p>

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Record-Keeping Requirements:

Condition No.	Condition
R-1	For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must keep records of the following: (1) All notifications submitted to comply with this 40 CFR 63 Subpart ZZZZ. (2) Maintenance conducted on the engine. (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to Section 60.4243(a)(2), documentation that the engine meets the emission standards. . [40 CFR 60.4245]
R-2	For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must meet the recordkeeping requirements in 40 CFR 63.6655 in accordance with the requirements in 63.6660. [40 CFR 63_Subpart ZZZZ]

Submittal/Action Requirements:

Condition No.	Condition
S-1	For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must submit a Notification of Compliance Status according to 63.9(h)(2)(ii) for initial compliance demonstration and performance tests specified in Tables 4 and 5 of Subpart ZZZZ. [40 CFR 63.6645(h)]
S-2	The permittee must submit a copy of each required performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed. [40 CFR 60.6245(d)]

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Submittal/Action Requirements:

Condition No.	Condition
S-3	<p>Within 90 days of completion of construction, the permittee shall submit a comprehensive report for NSPS Subpart JJJJ as it applies to Emission Points AA-001, AA-002, AA-003 and AA-004. Included in the report shall be the following:</p> <ul style="list-style-type: none">(1) the date construction commenced(2) the manufacturer date of the engine(3) the model year of the engine(4) the manufacturer certification status of the engine(5) the emission standard which the permittee has chosen to comply(6) the compliance option chosen <p>If the permittee determines that the emission points are not subject to NSPS Subpart JJJJ, the permittee must submit a justification detailing the reason the subpart is not applicable. [APC-S-2 B.11]</p>
S-4	<p>The permittee shall submit a written stack test protocol at least thirty (30) days prior to the scheduled test date for each required stack test to ensure that all test methods and procedures are acceptable to the Office of Pollution Control. The protocol shall address the conditions under which the plant will be operated during testing, and how and which operating parameters will be monitored during testing. Also, the Office of Pollution Control must be notified prior to the scheduled test date. At least TEN (10) days notice should be given so that an observer may be scheduled to witness the test(s). [APC-S-2 B(11)]</p>
S-5	<p>For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must meet the reporting requirements as specified in 40 CFR 63.6645 and 63.6650. [40 CFR 63_Subpart ZZZZ]</p>

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GRPT0000000001 (Group 1) Natural Gas Reciprocating Internal Combustion Compressor Engines with emissions controlled by an oxidation catalyst - Emission Points AA-001, AA-002, AA-003 and AA-004:

Narrative Requirements:

Condition No.	Condition
T-1	For Emission Points AA-001, AA-002, AA-003 and AA-004, emission standards must be met for the lifetime of the engine. [40 CFR 60.4234]
T-2	For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee shall , maintain and operate the compressor engines, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practice for minimizing emissions at all times, including periods of startup, shutdown, and malfunction. [40 CFR 63.6605(b)]
T-3	40 CFR 63 Subpart ZZZZ Performance Testing For Emission Points AA-001, AA-002, AA-003 and AA-004, the permittee must conduct the initial performance tests or other initial compliance demonstrations in Table 4 to 40 CFR 63 Subpart ZZZZ that are applicable within 180 days after the compliance date that is specified in section 63.6595 and according to the provisions in section 63.7(a)(2). The permittee shall conduct subsequent performance tests for each affected compressor engine, in accordance with the applicable testing requirements of Table 3 of 40 CFR 63 Subpart ZZZZ. . [40 CFR 63.6615, 40 CFR 63.6620, 40 CFR 63.6610(a)]

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GRPT0000000002 (Group 2) Storage Tanks:

Narrative Requirements:

Condition	Condition
T-1	Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [APC-S-2 II.B(10)]

GENERAL INFORMATION

Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station
4585 Smith Station Road
Edwards, MS
Hinds County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
39671	Midcontinent Express Pipeline, LLC	Official Site Name	02/02/2009	
108000250	Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station	Air-Construction	09/01/2009	
2804900250	Midcontinent Express pipeline LLC, MEP 4 Vicksburg Compressor Station	Air-AIRS AFS	09/01/2009	
108000250	Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station	Air-Title V Fee Customer	06/01/2010	
108000250	Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station	Air-Title V Operating	09/06/2012	08/31/2017
	Branch	Branches Group - Air	07/18/2017	
108000250	Midcontinent Express Pipeline LLC, MEP 4 Vicksburg Compressor Station	Air-Title V Operating	10/24/2017	09/30/2022

Basin: Big Black River Basin