

State of Mississippi



AIR POLLUTION CONTROL PERMIT

Permit To Construct Air Emissions Equipment

THIS CERTIFIES Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Claude Smith Road Magnolia, MS Amite 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 Qual	ity Permit Board
Issued/Modified: Expires:	Mississippi May 1 4 2014	Department of Enviro	onmental Quality Permit No. 0080-00041 Agency Interest # 64865

Table of Contents

Subject Item Inventory	i
Facility Requirements	1
General Information	A-1

Other Relevant Documents:

The federal regulations in this permit may be found on-line at http://ecfr.gpoaccess.gov/ and the State of Mississippi regulations may be found on-line at http://www.mdeq.state.ms.us/ or a copy of the regulations my be obtained by contacting the Mississipp Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, MS 39255, phone number 601-961-5171. The following regulations were referenced in this permit:

11 Miss. Admin. Code Pt. 2, Ch. 1

11 Miss. Admin. Code Pt. 2, Ch. 2

40 CFR 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR 60 Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Subject Item Inventory Permit Number:0080-00041 Activity ID No.: PER20130001

Subject Item Inventory:

001 002 003 004 005 006 007	Oil and Gas Production Control flare for Heater-Treater flash gas, Joule-Thompson Unit exit gas, oil tanks water tanks and natural gas liquids storage vessel flash gas (Eq. ID 5-13-F) Oil Tank Transfer to Truck Loading-Loading Losses (Eq. ID 17-13-LL) 250 HP Natural Gas Fired Compressor Engine(Eq. ID 2-13-ICE-ES) 20 HP Gasoline Powered Circulating Pump Engine (Eq. ID 3-13-ICE ES) 0.5 MMBTU Heater Treater Burner stack(Eq. ID 1-13-HT-BS) Chemical Storage Tank (20-13-CST) 3 Gas operated Chemical Injection Pumps (Eq. ID 12,13,14-13 GOP)
002 1 003 1 004 1 005 1 006 1 007 1	flash gas (Eq. ID 5-13-F) Image: Comparison of the
003 (1) 004 (1) 005 (1) 006 (1) 007 (1)	250 HP Natural Gas Fired Compressor Engine(Eq. ID 2-13-ICE-ES) 20 HP Gasoline Powered Circulating Pump Engine (Eq. ID 3-13-ICE ES) 0.5 MMBTU Heater Treater Burner stack(Eq. ID 1-13-HT-BS) Chemical Storage Tank (20-13-CST)
004 005 006 007	20 HP Gasoline Powered Circulating Pump Engine (Eq. ID 3-13-ICE ES) 0.5 MMBTU Heater Treater Burner stack(Eq. ID 1-13-HT-BS) Chemical Storage Tank (20-13-CST)
005 006 007	0.5 MMBTU Heater Treater Burner stack(Eq. ID 1-13-HT-BS) Chemical Storage Tank (20-13-CST)
006	Chemical Storage Tank (20-13-CST)
007	
	3 Gas operated Chemical Injection Pumps (Eq. ID 12 13 14-13 GOP)
	5 ous operated chemical injection ramps (Eq. 19 12,15,17 15 GOL)
008	Gas operated pump (Eq. ID 15-13-GOP)
009	Natural Gas Liquids Purging (Eq. ID 16-13-NGL-P)
010	Pneumatic Controllers (Eq. ID 18-13-PC)
)11	400 BBL Oil Storage Tank (4a-13-OST-CV)
012	400 BBL Oil Storage Tank (4b-13-OST-CV)
013	400 BBL Oil Storage Tank (4c-13-OST-CV)
)14	400 BBL Oil Storage Tank (4d-13-OST-CV)
)15	400 BBL Water Storage Tank (4e-13-OST-CV)
)16	400 BBL Water Storage Tank (4f-13-OST-CV)
017	Blowcase Vessel (9-13-BV)
018	Blowcase Vessel (10-13-BV)
)19	Blowcase Vessel (11-13-BV)
20	Lube Oil Tank (21-13-LOT)
)1)1)1)1)1	3 4 5 6 7 8 9

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Subject Item Inventory Permit Number:0080-00041 Activity ID No.: PER20130001

 ID
 Designation
 Description

 AREA3
 AA-021
 Fugutive Emissions (19-13-FE)

Subject Item Groups:

ID	Description	Components
GRPT1	Reciprocating Internal Combustion engines	EQPT1 250 HP Natural Gas Fired Compressor Engine(Eq. ID 2-13-ICE-ES)
		EQPT2 20 HP Gasoline Powered Circulating Pump Engine (Eq. ID 3-13-ICE ES)

<u>KEY</u>	
ACT = Activity	AI = Agency Interest
AREA = Area	CAFO = Concentrated Animal Feeding Operation
CONT = Control Device	EQPT = Equipment
IA = Insignificant Activity	IMPD = Impoundment
MAFO = Animal Feeding Operation	PCS = PCS
RPNT = Release Point	TRMT = Treatment
WDPT = Withdrawal Point	

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (64865) Oil and Gas Production:

Limitation Requirements:

Conditio	on		
No.	Parameter	Condition	
L-1		The facility will be subject to 40 CFR 60, Subpart OOOO, New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission, and Distribution. If any of the equipment listed in 40 CFR 60.5365 (a) through (h) are constructed at this facility, the permittee must comply with the applicable requirements of 40 CFR 60, Subpart OOOO. [40 CFR 60_Subpart OOOO]	
L-2		All equipment located at the facility shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(10)]	
Monito	oring Requirements:		
Conditio	n		
No.	Parameter	Condition	
M-1		The permittee shall conduct a semi-annual produced gas analysis, including hydrogen sulfide concentration, sulfur content, methane concentration, gross heating value, molecular weight, specific gravity, benzene concentration, ethylbenzene concentration, toluene concentration, and xylenes concentration. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]	

Page 1 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall keep the following records on a rolling 12 month basis:
	(1) The tons/year of volatile organic compounds, total hazardous air pollutants, and individual air pollutants on a monthly basis for 12 consecutive months,
	(2) Results of the semi-annual analysis conducted on produced gas.
	(3) Barrels of crude oil and water produced, monthly
	(4) Cubic feet of natural gas produced, monthly
	(5) Cubic feet of waste gas flared, monthly
	(6) Cubic feet of natural gas sold, monthly
	(7) Log/record of weekly visible emission observation for the flare. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]

Condition No.	Condition
S-1	General Condition: The permittee shall submit certification of construction: Due within thirty (30) days of completion of construction or installation of an approved stationary source or prior to startup, whichever is earlier. The notification shall certify that construction or installation was performed in accordance with the approved plans and specifications. In the event there is any change in construction from the previously approved plans and specifications or permit, the permittee shall promptly notify MDEQ in writing. If MDEQ determines the changes are substantial, MDEQ may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. [11 Miss. Admin. Code Pt. 2, R. 2.5.D.]
S-2	Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. [11 Miss. Admin.Code Pt. 2, R.2.5.C(2).]
S-3	The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. [11 Miss. Admin.Code Pt. 2, R.2.5.C(4).]

Page 2 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Submittal/Action Requirements:

Condition	
No.	Condition
S-4	The permittee shall report to MDEQ all applicable requirements that the facility is subject to and must comply with under 40 CFR 60 Subpart A, 40 CFR 60 Subpart JJJJ, 40 CFR 60 Subpart OOOO, 40 CFR 63 Subpart 63, 40 CFR 63 Subpart ZZZZ. This report shall include standards, initial compliance demonstration, continuous compliance demonstration, recordkeeping, notification, performance testing, and reporting. This report shall be submitted within 60 days of certification of construction. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(11)]
S-5	The permittee shall report annually by January 31st for the preceding calendar year:
	(1) The actual tons/year of volatile organic compounds; total hazardous air pollutants; and individual hazardous air pollutants in 12 consecutive months with a rolling total for each calendar month, annual crude oil; annual produced water; annual produced gas; annual waste gas flared; and annual natural gas sold.
	(2) The permittee shall submit an annual report summarizing the date, start time and duration of any upsets or bypasses of control devices at the facility. If no bypasses or upsets have occurred, the facility should submit a negative declaration.
	(3) Results of all EPA Method 22 analysis conducted on the control flare. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]
Narrative	e Requirements:
Gener	al Condition:
Condition	
No.	Condition
T-1	General Condition: The stationary source shall be designed and constructed so as to operate without causing a violation of any Applicable Rules and Regulations or this permit, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. [11 Miss. Admin.Code Pt. 2, R.2.5.A.]
T-2	General Condition: Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49_17_29 1.b]

Page 3 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Narrative Requirements:

General Condition:

Condition No.	Condition
T-3	General Condition: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. [Miss. Code Ann. 49_17_29]
T-4	General Condition: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation 11 Miss. Admin. Code Pt.2, R. 1.10 "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. [11 Miss. Admin. Code Pt. 2, R. 1.10]
T-5	 General Condition: The permittee shall allow the Mississippi Environmental Quality Commission, the Mississippi Environmental Quality Permit Board, MDEQ staff and/or their authorized representatives, upon the presentation of credentials: a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring equipment or monitoring method required in this permit, and to sample any air emission. [Miss. Code Ann. 49_17_21]
T-6	General Condition: After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for good cause shown including, but not limited to, the following: a. Persistant violation of any terms or conditions of this permit; b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or c. A change in any condition that requires either a temporary or permanent reduction or elimination of previously authorized air emissions. [11 Miss. Admin.Code Pt. 2, R.2.2.C.]
T-7	General Condition: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control. [Miss. Code Ann. 49_17_39]
Condition No.	Condition
T-8	General Condition: This permit is for air pollution control purposes only. [11 Miss. Admin.Code Pt. 2, R.2.1.D.]

Page 4 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Narrative Requirements:

Condition No.	Condition
T-9	General Condition: The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. [11 Miss. Admin.Code Pt. 2, R.2.2.B(5).]
T-10	General Condition: It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. [11 Miss. Admin.Code Pt. 2, R.2.1.D(6).]
T-11	General Condition: The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. [11 Miss. Admin.Code Pt. 2, R.2.1.D(7).]
T-12	General Condition: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(a).]
T-13	General Condition: The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(b).]
T-14	General Condition: The permit does not convey any property rights of any sort, or any exclusive privilege. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(c).]
T-15	General Condition: The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(d).]
T-16	General Condition: This permit shall not be transferred except upon approval of the Permit Board. [11 Miss. Admin.Code Pt. 2, R.2.16.B.]
T-17	General Condition: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [11 Miss. Admin.Code Pt. 2, R.1.1.D(7).]

Page 5 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Narrative Requirements:

Condition No.	Condition
T-18	General Condition: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. [11 Miss. Admin.Code Pt. 2, R.2.5.C(1).]
T-19	General Condition: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. [11 Miss. Admin.Code Pt. 2, R.2.5.D(3).]
T-20	General Condition: Except as prohibited in 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7) after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. [11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).]
T-21	General Condition: Except as otherwise specified in 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7), the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing. [11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).]
T-22	General Condition: Except as otherwise specified in 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7), upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. [11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).]
T-23	General Condition: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to net out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. [11 Miss. Admin.Code Pt. 2, R.2.5.D(7).]

Page 6 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

AI0000064865 (continued):

Narrative Requirements:

Condition No.	Condition		
T-24	General Condition: Regarding compliance testing:		
	(a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and		
	Regulations or this permit and in units of mass per time.		
	(b) Compliance testing will be performed at the expense of the permittee.		
	(c) Each emission sampling and analysis report shall include but not be limited to the following:		
	1. detailed description of testing procedures;		
	2. sample calculation(s);		
	3. results; and		
	4. comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit. [11 Miss. Admin.Code Pt. 2, R.2.6.B(3),(4)&(6).]		
T-25	General Condition: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. [11 Miss. Admin.Code Pt. 2, R.2.5.A(4).]		

Page 7 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

Page 8 of 14

CONT000000001 (AA-001) Control flare for Heater-Treater flash gas, Joule-Thompson Unit exit gas, oil tanks water tanks and natural gas liquids storage vessel flash gas (Eq. ID 5-13-F):

Limitation Requirements:

Condition	1	
No.	Parameter	Condition
L-1		The permittee shall not permit the emissions of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic foot. [11 Miss. Admin. Code Pt. 2, Ch. 1. R.1.4B(2)]
L-2		For the flare, the permittee shall comply with all applicable requirements of 40 CFR 60.18. [40 CFR 60.18]
L-3		The permittee shall operate the control flare with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during any consecutive two (2) hours. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(10)]
L-4		The permittee shall maintain a flare pilot flame at all times. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(10)]
L-5		The net heating value of the gas being combusted shall be 300 BTU/scf or greater if the flare is steam-assisted or air-assisted; or the net heating value of the gas being combusted shall be 200 BTU/scf or greater if the flare is non-assisted. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(10)]
Monito	ring Requirements:	

ConditionNo.ParameterCondition		
M-1		The permittee shall monitor the presence of the flare pilot flame by one of the following methods:
		using a thermo-couple or any other equivalent device to detect the presence of a flare; or
		visually observe the presence of the flare flame, daily. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

CONT000000001 (continued):

Monitoring Requirements:

Condition		
No.	Parameter	Condition
M-2		The permittee shall visually observe the flame for five minutes once a week. If smoking is observed, corrective action must be taken. The permittee shall perform a visual observation for a period of two (2) hours using EPA Method 22 immediately after corrections are made to demsontrate compliance with the visible emissions limitations. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]
M-3		The permittee shall record on a log sheet the results of weekly visual observation and whether or not smoking is observed. If smoking is observed, the permittee shall take corrective action immediately and shall record the corrective action. If smoking is observed after a 24 hour period, the permittee shall perform a visual observation using EPA Method 22 with the results made available to MDEQ upon request. The results of all EPA Method 22 tests shall be submitted to MDEQ, annually. If visible emissions exceed 5 minutes during a 2-hour observation period, the permittee shall notify the MDEQ in writing within seven days at the following address:
		Mississippi Department of Environmental Quality Office of Pollution Control Environmental Compliance and Enforcement
		P.O. Box 2261 Jackson, MS 39225. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]
Record	1-Keeping Requirements:	

Condition No.	Condition
R-1	The permittee shall keep records of all maintenance performed on the flare in order to operate the flare in a manner consistent with good air pollution practices to minimize emissions and make said records available on request. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2B(11)]
R-2	The permittee shall maintain a record and/or log documenting all visual observations/test, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, the date and time when visible observations were conducted and the date and time when corrective action was taken. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]

Page 9 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

CONT000000001 (continued):

Record-Keeping Requirements:

Condition No.	Condition			
R-3	-3 The permittee shall record on a log sheet anytime the facility is operating without a flame present and the corrective action taken. [11 Miss. Admin. Code l Ch. 2. R.2.2B(11)]			
Narrative	e Requirements:			
Condition				
No.	Condition			
T-1	Flare emissions shall be calculated monthly and determined for each consecutive 12-month period as tons/year. The permittee may assume 98% control efficiency for the flare. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2B(11)]			

T-2 The permittee shall keep a record of the net heating value and volume of the stream combusted in the flare. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2..B(11)]

Page 10 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

Page 11 of 14

AREA0000000001 (AA-002) Oil Tank Transfer to Truck Loading-Loading Losses (Eq. ID 17-13-LL):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The oil storage tanks will be operated to minimize the emissions lost to the atmosphere during the loading process. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2B(11)]

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

EQPT000000003 (AA-005) 0.5 MMBTU Heater Treater Burner stack(Eq. ID 1-13-HT-BS):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1 Opacity Opacity: The line heater shall have emissions of opacity less than or equal to 40%, as determined by EPA Referen 40 CFR 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. R.1.3.A(1)]		Opacity: The line heater shall have emissions of opacity less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. R.1.3.A(1)]
Narrativo	e Requirements:	
Condition		
No.	Condition	
T-1	Such air emission equip	oment shall be operated as efficiently as possible to provide the maximum reduction of contaminants. [11 Miss. Admin. Code Pt. 2, Ch. 2.

R.2.2.B(10)]

Page 12 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

GRPT000000001 Reciprocating Internal Combustion engines:

Limitation Requirements:

Condition No. Parameter Condition		ition	
110.	Taraneter	Condition	
L-1		The permittee shall comply with all applicable requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60 Subpart JJJJ for any internal combustion engines operated at the facility. [40 CFR 60_SUBPART JJJJ]	
L-2		The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ for all Reciprocating Internal Combustion Engines (RICE) operating at the facility. [40 CFR 63_Subpart ZZZZ]	
L-3		The reciprocating internal combustion engine shall have emissions of opacity less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. R.1.3A(1)]	
Record	d-Keeping Requirements:		

Condition No.	Condition
R-1	The permittee shall develop a detailed report of all applicable requirements of 40 CFR 60, Subpart JJJJ and 40 CFR 63 Subpart ZZZZ including limitations, notifications, monitoring, testing, reporting, and recordkeeping no later than thirty (30) days from the certification of construction date. This applicability report shall be attached to the Permittee's copy of the permit and kept on-site adn made available to MDEQ representatives during an inspection of the facility. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2.B(11)]

Page 13 of 14

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Facility Requirements Permit Number:0080-00041 Activity ID No.: PER20130001

GRPT000000001 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	The permittee shall submit a report detailing all applicable requirements of 40 CFR 60, Subpart JJJJ and 40 CFR 63, Subpart ZZZZ including limitations, notifications, monitoring, testing, reporting, and recordkeeping no later than thirty (30) days from the certification of construction date. [11 Miss. Admin. Code Pt. 2, Ch. 2. R.2.2B(11)]

Page 14 of 14

GENERAL INFORMATION

Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production Facility Claude Smith Road Magnolia, MS Amite County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
64865	Goodrich Petroleum Company, LLC	Official Site Name	10/24/2013	
2800500041	Goodrich Petroleum Company, LLC	Air-AIRS AFS	10/28/2013	
008000041	Goodrich Petroleum Company LLC, Nunnery 12-1H Number 1 Production FacilAir-Construction			

Basin: South Independent Streams Basin

Location Description:

GENERAL INFORMATION

Relevant Documents:

The federal regulations in this permit may be found on-line at http://ecfr.gpoaccess.gov/ and the State of Mississippi regulations may be found on-line at http://www.mdeq.state.ms.us/ or a copy of the regulations my be obtained by contacting the Mississipp Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, MS 39255, phone number 601-961-5171. The following regulations were referenced in this permit:

11 Miss. Admin. Code Pt. 2, Ch. 1

11 Miss. Admin. Code Pt. 2, Ch. 2

40 CFR 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60 Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution

40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines