



**State of Mississippi**

**AIR POLLUTION CONTROL PERMIT**

To Construct Air Emissions Equipment



**THIS CERTIFIES**

HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Off Kee Ranch Lane  
Woodville, MS  
Wilkinson 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**

A handwritten signature in blue ink, reading "Kristal Rudolph", written over a horizontal line.

**Mississippi Department of Environmental Quality**

**Issued/Modified: JAN 31 2018**

**Expires:**

**Permit No. 2940-00029**

**Agency Interest # 65565**

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### Other Relevant Documents:

The federal regulations referenced 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.ms.state.us/> or a copy of the regulations may be obtained by contacting the Mississippi Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, Mississippi 39255, phone (601) 961-5171. The following regulations were referenced in this permit:

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 1, Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2, Permit Regulations for the Construction and/or Operation of Air Emissions Equipment

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

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Subject Item Inventory  
Permit Number: 2940-00029  
Activity ID No.: PER20180001

**Subject Item Inventory:**

ID	Designation	Description
AI65565	65565	Oil and Gas Production Facility
AREA1	AA-001	Fugitive Emissions from Equipment Leaks
CONT1	AA-002	Flare that controls gas produced/emissions from three phase separators, heater treaters, crude oil storage tanks and produced water storage tanks
EQPT1	AA-003	340 HP Natural Gas Non-Emergency Spark Ignition Internal Combustion Engine
EQPT2	AA-004	228 HP Diesel Non-Emergency Compression Ignition Combustion Engine
EQPT5	AA-005	Methanol Pump
EQPT6	AA-006	Anti-foam Pump
EQPT7	AA-007	E.B. Pump
EQPT8	AA-008	C.I. Pump
EQPT9	AA-009	Tank Bottoms Pump
EQPT10	AA-010	Flare Scrubber #1 Pump
EQPT11	AA-011	Flare Scrubber #2 Pump
EQPT12	AA-012	16,800 gallon Crude Oil Storage Tank
EQPT13	AA-013	16,800 gallon Crude Oil Storage Tank
EQPT14	AA-014	16,800 gallon Crude Oil Storage Tank
EQPT15	AA-015	16,800 gallon Crude Oil Storage Tank
EQPT16	AA-016	16,800 gallon Crude Oil Storage Tank
EQPT17	AA-017	16,800 gallon Produced Water Storage Tank
EQPT18	AA-018	16,800 gallon Produced Water Storage Tank
EQPT19	AA-019	16,800 gallon Produced Water Storage Tank

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**Subject Item Inventory:**

ID	Designation	Description
EQPT20	AA-020	16,800 gallon Produced Water Storage Tank
EQPT21	AA-021	16,800 gallon Produced Water Storage Tank
EQPT22	AA-022	330 gallon Methanol Storage Tank
EQPT23	AA-023	1000 gallon Diesel Storage Tank
EQPT24	AA-024	500 gallon Diesel Day Tank
EQPT25	AA-025	250 gallon Anti-Foam Storage Tank
EQPT26	AA-026	250 gallon Emulsion Breaker Storage Tank
EQPT27	AA-027	55 gallon Corrosion Inhibitor Storage Tank
EQPT28	AA-028	Truck Loading
EQPT29	AA-029	Heater Treater Burner Stack (1 MMBTU/hr)
EQPT30	AA-030	Heater Treater Burner Stack (1 MMBTU/hr)
EQPT31	AA-031	Heater Treater vent to Control Flare
EQPT32	AA-032	Heater Treater vent to Control Flare
EQPT33	AA-033	Three Phase Separator vented to Control Flare
EQPT34	AA-034	Three Phase Separator vented to Control Flare

**Subject Item  
Groups:**

ID	Description	Components
GRPT1	Miscellaneous Pumps	EQPT5 Methanol Pump
		EQPT6 Anti-foam Pump

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**Subject Item  
Groups:**

ID	Description	Components
		EQPT7 E.B. Pump
		EQPT8 C.I. Pump
		EQPT9 Tank Bottoms Pump
		EQPT10 Flare Scrubber #1 Pump
		EQPT11 Flare Scrubber #2 Pump
GRPT2	Crude Oil Storage Tanks	EQPT12 16,800 gallon Crude Oil Storage Tank
		EQPT13 16,800 gallon Crude Oil Storage Tank
		EQPT14 16,800 gallon Crude Oil Storage Tank
		EQPT15 16,800 gallon Crude Oil Storage Tank
		EQPT16 16,800 gallon Crude Oil Storage Tank
GRPT3	Produced Water Storage Tanks	EQPT17 16,800 gallon Produced Water Storage Tank
		EQPT18 16,800 gallon Produced Water Storage Tank
		EQPT19 16,800 gallon Produced Water Storage Tank
		EQPT20 16,800 gallon Produced Water Storage Tank
		EQPT21 16,800 gallon Produced Water Storage Tank

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**Subject Item  
Groups:**

ID	Description	Components
GRPT4	Miscellaneous Tanks	EQPT22 330 gallon Methanol Storage Tank
		EQPT23 1000 gallon Diesel Storage Tank
		EQPT24 500 gallon Diesel Day Tank
		EQPT25 250 gallon Anti-Foam Storage Tank
		EQPT26 250 gallon Emulsion Breaker Storage Tank
		EQPT27 55 gallon Corrosion Inhibitor Storage Tank
GRPT5	Heater Treater Combustion Stack	EQPT29 Heater Treater Burner Stack (1 MMBTU/hr)
		EQPT30 Heater Treater Burner Stack (1 MMBTU/hr)
GRPT6	Heater Treater Vented to Control Flare	EQPT31 Heater Treater vent to Control Flare
		EQPT32 Heater Treater vent to Control Flare
GRPT7	3 Phase Separator Vented to Control Flare	EQPT33 Three Phase Separator vented to Control Flare
		EQPT34 Three Phase Separator vented to Control Flare

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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

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1	Hydrogen sulfide	Hydrogen sulfide: The permittee shall not permit the emissions of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet. Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than 1600° fahrenheit for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
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, R. 2.2.B(11)]
L-3		For all combustion units operating at this facility, the permittee shall combust only natural gas or diesel. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

**Monitoring Requirements:**

Condition No.	Parameter	Condition
M-1		The permittee shall conduct an annual produced field gas analysis, including hydrogen sulfide concentration, sulfur content, methane concentration (volume), gross heating value, molecular weight and speciated VOC constituents. The first produced field gas analysis shall be conducted no later than 60 days after certifying construction. Additionally, an updated produced field gas analysis must be conducted within 90 days from startup of any well that starts up after the most recent analysis. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-2		The permittee shall calculate the gas to oil ratio (GOR) from the production of crude oil and gas, annually. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]



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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Record-Keeping Requirements:**

Condition No.	Condition
R-1	<p>The permittee shall keep the following records:</p> <p>(1) Monthly and rolling 12 month total for: produced crude oil (barrels), produced water (barrels), produced field gas (MMSCF), gas flared (MMSCF), volatile organic compound (VOC) emissions (lbs and/or tons) and total hazardous air pollutants (HAP) emissions (lbs and/or tons), and individual HAP emissions (lbs and/or tons), including sample calculations;</p> <p>(2) Results of all field gas analysis performed during the reporting period</p> <p>(3) Gas to Oil Ratio (GOR) annual value. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]</p>

**Submittal/Action Requirements:**

Condition No.	Condition
S-1	<p>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.]</p>
S-2	<p>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).]</p>
S-3	<p>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).]</p>

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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Submittal/Action Requirements:**

Condition No.	Condition
S-4	<p>The permittee shall report annually by January 31st for the preceding calendar year:</p> <p>(1) Monthly and rolling 12 month total for: produced crude oil (barrels), produced water (barrels), produced field gas (MMSCF), gas flared (MMSCF), volatile organic compound (VOC) emissions (lbs and/or tons) and total hazardous air pollutants (HAP) emissions (lbs and/or tons), and individual HAP emissions (lbs and/or tons), including sample calculations;</p> <p>(2) Results of all field gas analysis performed during the reporting period</p> <p>(3) Gas to Oil Ratio (GOR) annual value. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]</p>

**Narrative Requirements:**

**General 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]
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]

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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Narrative Requirements:**

Condition No.	Condition
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. Persistent 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.]
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).]

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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Narrative Requirements:**

Condition No.	Condition
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).]
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).]

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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Narrative Requirements:**

Condition No.	Condition
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 11 Miss. Admin. Code Pt. 2, R. 2.13.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).]
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).]

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**AI0000065565 (65565) Oil and Gas Production Facility:**

**Narrative Requirements:**

Condition No.	Condition
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).]

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**CONT0000000001 (AA-002) Flare that controls gas produced/emissions from three phase separators, heater treaters, crude oil storage tanks and produced water storage tanks:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1	Particulate Matter	<p>Particulate Matter: The maximum permissible emission of ash and /or particulate matter from the control flare shall not exceed an emission rate as determined by the relationship</p> $E = 0.8808 * I^{-0.1667}$ <p>Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour. (Ref. APC-S-1, Section 3.4(a)(2)) . [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)b]</p>
L-2		Flares shall be operated at all times when emission may be vented to them. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-3		Flares shall be operated and maintained in conformance with their design and manufacturer's recommendations. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-4		Flares shall be designed and operated 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, R. 2.2.B(10)]
L-5		The permittee shall maintain a flare pilot flame, auto ignitor, or any other equivalent device at all times when emissions are routed to the flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-6		Flares shall only be used with the net heating value of the gas being combusted is 300 Btu/scf or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

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**CONT0000000001 (AA-002) Flare that controls gas produced/emissions from three phase separators, heater treaters, crude oil storage tanks and produced water storage tanks:**

**Monitoring Requirements:**

Condition No.	Parameter	Condition
M-1		The permittee shall monitor the presence of the flare pilot flame or auto ignitor by one of the following methods: using a thermo-couple or any other equivalent device to detect the presence of a flame; or visually observe the presence of the flare flame, daily. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-2		The permittee shall visually observe the flare for a minimum of five (5) minutes during operation using EPA method 22, weekly. If smoking is observed, corrective actions must be taken. The permittee shall perform a follow-up visual observation for a period of two (2) hours using EPA Method 22 immediately after corrections are made to demonstrate compliance with the visible emissions limitation. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-3		The net heating value of the gas being combusted may be determined by the annual field gas analysis. Analysis must demonstrate that the heat content of the flare gas is 300 Btu/scf or greater if the flare is steam-assisted; or the net heating value of the gas being combusted is 200 Btu/scf or greater if the flare is non-assisted. . [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-4		The permittee shall measure the volume of gas combusted in the flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

**Record-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 control practices to minimize emissions and shall make said record available upon request. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
R-2	The permittee shall maintain a record and/or log documenting all visual observation/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 actions were taken. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]



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**CONT0000000001 (AA-002) Flare that controls gas produced/emissions from three phase separators, heater treaters, crude oil storage tanks and produced water storage tanks:**

**Record-Keeping Requirements:**

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Condition No.	Condition
R-3	The permittee shall record on a log sheet anytime the facility is operating without a flare flame present and corrective actions taken including date, start and end times, duration, cause, corrective and preventative actions, and whether or not any gases were being vented to the flare at the time. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
R-4	The permittee shall keep a record of monitoring conducted to ensure the flare is operated and maintained in conformance with its design. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

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**EQPT0000000001 (AA-003) 340 HP Natural Gas Non-Emergency Spark Ignition Internal Combustion Engine:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter: For this combustion engine, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a]
L-2	Opacity	Opacity: Emissions of opacity shall be less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)]
L-3		For this combustion engine, the permittee is subject to 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Emission Point AA-003 is a new RICE located at an area source of hazardous air pollutants (HAP). Therefore, compliance with 40 CFR Part 63, Subpart ZZZZ shall be achieved by meeting all applicable requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ. No further requirements apply for such engines under NESHAP Subpart ZZZZ. [40 CFR 63.6585, 40 CFR 63.6590(c)]
L-4		For this combustion engine, the permittee is subject to and shall comply with the applicable requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart JJJJ) and shall comply with the General Provisions (40 CFR Part 60, Subpart A) as required in Table 3 to NSPS Subpart JJJJ. [40 CFR 60_SUBPART JJJJ]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
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**EQPT0000000002 (AA-004) 228 HP Diesel Non-Emergency Compression Ignition Combustion Engine:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter: For this internal combustion engine, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a]
L-2	Opacity	Opacity: Emissions of opacity shall be less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)]
L-3		For this combustion engine, the permittee is subject to 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Emission Point AA-004 is a new RICE located at an area source of hazardous air pollutants (HAP). Therefore, compliance with 40 CFR Part 63, Subpart ZZZZ shall be achieved by meeting all applicable requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII. No further requirements apply for such engines under NESHAP Subpart ZZZZ. [40 CFR 63.6585, 40 CFR 63.6590(c)]
L-4		For this combustion engine, the permittee is subject to and shall comply with the applicable requirements of the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart III) and shall comply with the General Provisions (40 CFR Part 60, Subpart A) as required in Table 8 to NSPS Subpart IIII. [40 CFR 60_Subpart IIII]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**EQPT0000000028 (AA-028) Truck Loading:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1		Truck loading shall only be operated with vapor balancing back to the tanks. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**GRPT0000000001 (Pumps) Miscellaneous Pumps:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1		Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**GRPT0000000002 (Crude Oil Storage Tanks) Crude Oil Storage Tanks:**

**Limitation Requirements:**

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Condition No.	Parameter	Condition
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L-1		The crude oil storage tanks shall only be operated with emissions routed to the control flare. [11 Miss. Admin. Code Pt. 2, R. 2.2 .B(10)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**GRPT0000000003 (Produced Water Storage Tanks) Produced Water Storage Tanks:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1		The produced water storage tanks shall only be operated with emissions routed to the control flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**GRPT0000000004 (Miscellaneous Tanks) Miscellaneous Tanks:**

**Limitation Requirements:**

Condition		
No.	Parameter	Condition
L-1		Such air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]



**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
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**GRPT0000000005 (Heater Treater Burner) Heater Treater Combustion Stack:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter: For the heater treaters, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a]
L-2	Opacity	Opacity: Emissions of opacity shall be less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)]
L-3	Sulfur Dioxide	Sulfur Dioxide: The permittee shall not discharge sulfur oxides from any fuel burning installation in which fuel is burned primarily to produce heat or power by indirect heat transfer in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. [11 Miss. Admin. Code Pt. 2, R. 1.4.A(1)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
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**GRPT0000000006 (Heater Treater) Heater Treater Vented to Control Flare:**

**Limitation Requirements:**

Condition No.	Parameter	Condition
L-1		Heater treaters shall only be operated with produced gas emissions routed to a control flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

**To Construct Air Emissions Equipment**  
HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Facility Requirements  
Permit Number: 2940-00029  
Activity ID No.:PER20180001

**GRPT0000000007 (Separators) 3 Phase Separator Vented to Control Flare:**

**Limitation Requirements:**

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Condition No.	Parameter	Condition
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L-1		Three phase separators shall only be operated with emissions routed to a control flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B (10)]

## GENERAL INFORMATION

HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility  
Off Kee Ranch Lane  
Woodville, MS  
Wilkinson County

### Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
65565	HK TMS, LLC, Horseshoe Hill 11-22H-1 Production Facility	Official Site Name	01/29/2018	
2815700029	HK TMS, LLC	Air-AIRS AFS	03/14/2014	
294000029	HK TMS LLC, Horseshoe Hill 11-32H-1 and 11-22H-1 Production Facility	Air-Construction	05/14/2014	01/31/2018
	Branch	Branches Group - Air	07/18/2017	
65565	HK TMS LLC, Horseshoe Hill 11-32H-1 and 11-22H-1 Production Facility	Historic Site Name	03/10/2014	01/29/2018
294000029	HK TMS LLC, Horseshoe Hill 11-22H-1 Production Facility	Air-Construction	01/31/2018	

**Basin:** South Independent Streams Basin

## GENERAL INFORMATION

### **General Facility Description:**

This facility is an oil and gas production facility with Standard Industrial Classification Code of 1311

### **Relevant Documents:**

The federal regulations referenced 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.ms.state.us/> or a copy of the regulations may be obtained by contacting the Mississippi Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, Mississippi 39255, phone (601) 961-5171. The following regulations were referenced in this permit:

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 1, Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2, Permit Regulations for the Construction and/or Operation of Air Emissions Equipment

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

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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