AIR QUALITY DIVISION
CHAPTER 6, SECTION 3
OPERATING PERMIT

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
122 West 25th Street
Cheyenne, Wyoming 82002

PERMIT NO. 3-2-039-1

Issue Date:
Expiration Date: **August 30, 2016**
Effective Date:
Replaces Permit No.: **3-2-039**

In accordance with the provisions of W.S. §35-11-203 through W.S. §35-11-212 and Chapter 6, Section 3 of the Wyoming Air Quality Standards and Regulations,

Tallgrass Midstream, LLC
(Amended December 19, 2012)
Douglas Gas Plant
Sections 34 and 35, Township 33 North, Range 71 West
Converse County, Wyoming

is authorized to operate a stationary source of air contaminants consisting of emission units described in this permit. The units described are subject to the terms and conditions specified in this permit. All terms and conditions of the permit are enforceable by the State of Wyoming. All terms and conditions of the permit, except those designated as not federally enforceable, are enforceable by EPA and citizens under the Act. A copy of this permit shall be kept on-site at the above named facility.

Steven A. Dietrich, Administrator
Air Quality Division

Date

Todd Parfitt, Director
Department of Environmental Quality

Date

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WAQSR CHAPTER 6, SECTION 3 OPERATING PERMIT

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

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GENERAL INFORMATION
(Modified *)**

Company Name: *Tallgrass Midstream, LLC* (*Amended December 19, 2012*)

Mailing Address: 370 Van Gordon Street

City: Lakewood State: CO Zip: 80228

Plant Name: Douglas Gas Plant

Plant Location: Sections 34 and 35, Township 33 North, Range 71 West, Converse County, Wyoming (252 Highway 59, Douglas, WY)

Latitude/ Longitude (WGS84): 42.79 / -105.36

Plant Mailing Address: P.O. Box 69

City: Douglas State: WY Zip: 82633

Name of Owner: *Tallgrass Midstream, LLC* (*Amended December 19, 2012*) Phone: *(303) 763-2950*

Reserved

Plant Manager/Contact: Paula Menten Phone: *(303) 763-3257* (*Amended December 19, 2012*)

DEQ Air Quality Contact: District Two Engineer
152 N. Durbin St, Suite 100
Casper, WY 82601
Phone: (307) 473-3455

SIC Code: 1321 **NAICS Code: 211112**

Description of Process: The Douglas Gas Plant is a natural gas processing plant. The plant produces residue gas and natural gas liquid products from collected raw field gas and condensates.

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SOURCE EMISSION POINTS

This table may not include any or all insignificant activities at this facility.

(Modified *)**

SOURCE ID#	SOURCE DESCRIPTION	SIZE	CH. 6, SEC. 2 PERMITS
F022D-E5	Clark HRA-8 Compressor Engine[2]	777 hp	**MD-14267A***
F022D-E7	Clark HRA-8 Compressor Engine[2]	777 hp	**MD-14267A***
F022D-E10	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E11	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E12	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E13	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E14	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E17	Clark HRA-8 Compressor Engine[2]	777 hp	**MD-14267A***
F022D-E19	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E20	Clark HRA-6 Compressor Engine[2]	583 hp	**MD-14267A***
F022D-E23	John Deere 375DLQ Air Compressor Engine (Diesel-fired)[3]	102 hp	None
F022D-E24	**Waukesha 5794GSI Compressor Engine[4]**	**1,380 hp**	**MD-14267A***
F022D-E25	**Waukesha 5794GSI Compressor Engine[4]**	**1,380 hp**	**MD-14267A***
F022D-E26	**Waukesha 5794GSI Compressor Engine [4]**	**1,380 hp**	**MD-14267A***
F022D-E27	**Waukesha 5794GSI Compressor Engine [4]**	**1,380 hp**	**MD-14267A***
F022D-E28	**Waukesha 5794GSI Compressor Engine [4]**	**1,380 hp**	**MD-14267A***
F022D-E29	**Waukesha 5794GSI Compressor Engine [4]**	**1,380 hp**	**MD-14267A***
E01	**Caterpillar G3512B Compressor Engine [5]**	**1,035 hp**	**MD-16631**
E02	**Caterpillar G3512B Compressor Engine [5]**	**1,035 hp**	**MD-16631**
F022D-FL1	Fugitive Emissions – **Area 1 – Plant #1 inlet gas/liquids and processing**	N/A	**MD-14267A***
F022D-FL2	Fugitive Emissions – **Area 2** -Plant #2 **inlet gas/liquids and processing**	N/A	**MD-14267A*, P0000716**
F022D-FL3	Fugitive Emissions — **Area 3 - residue and propane compression** Truck Load-Out	10 trucks/day	**MD-14267A***
F022D-FL4	Fugitive Emissions – **Area 4 - Stabilizer, gasoline storage, NGL storage**	N/A	**MD-14267A***
F022D-Flare	Truck Loading/VRU Back Up Flare	N/A	**MD-14267A***
F022D-H1	Hot Oil Heater	30 MMBtu/hr	**wv-12916**
F022D-H3	Hot Oil Heater	15 MMBtu/hr	**wv-12916**
F022D-H5	Line Heater	3 MMBtu/hr	AP-DU9
F022D-H6	Line Heater	3 MMBtu/hr	AP-DU9

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SOURCE ID#	SOURCE DESCRIPTION	SIZE	CH. 6, SEC. 2 PERMITS
F022D-TK101	Gasoline Tank	10,000 bbl	MD-1136, **MD-14267A***
F022D-VRU	Vapor Recovery Unit (VRU)	N/A	**MD-14267A***
TNK014	**Vertical Atmospheric Frac Tank**	**16,800 gallons**	**P0014933****
TNK015	**Vertical Atmospheric Frac Tank**	**16,800 gallons**	**P0014933****
TNK016	**Pressurized Separator Tank**	**3,550 gallon**	**P0014933****

[1] **Reserved**
[2] 2 stroke lean burn engine
[3] Compression ignition engine
[4] **4-stroke rich burn controlled with air-fuel ratio controls (AFRC) and non-selective catalytic reduction (NSCR) catalysts**
[5] **4-stroke lean burn controlled with oxidation catalysts**
*** Corrected on 11/7/2013**
**** Corrected on 4/22/2015**

TOTAL FACILITY ESTIMATED EMISSIONS
(Modified *)**

For informational purposes only. These emissions are not to be assumed as permit limits.

POLLUTANT	EMISSIONS (TPY)
CRITERIA POLLUTANT EMISSIONS	
Particulate Matter	15
PM_{10} Particulate Matter	15
Sulfur Dioxide (SO_2)	1
Nitrogen Oxides (NO_X)	**1,330**
Carbon Monoxide (CO)	**541**
Volatile Organic Compounds (VOCs)	**320**
HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS	**36**

Particulate matter, PM_{10}, and SO_2 emission estimates are from the operating permit **application; NO_X, CO, VOC, and HAP emissions are from permit MD-16631. The highest single HAP is formaldehyde at 24.0 TPY.**

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FACILITY-SPECIFIC PERMIT CONDITIONS

Facility-Wide Permit Conditions

(F1) AMBIENT MONITORING PROGRAM [WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)] (Modified *)**

The permittee shall operate, in accordance with the requirements of 40 CFR parts 50 and 58, an approved ambient monitoring program that includes an ambient NO_2 monitoring network at the Douglas Gas Plant to demonstrate compliance with the ambient standards for NO_2.

- **(a) The permittee shall maintain a Division approved quality assurance plan for the monitoring network, as required by 40 CFR part 58, and shall comply with all commitments in that plan.**
- **(b) The ambient NO_2 monitoring network shall remain in operation at least until July 11, 2016. Authorization to shut down the ambient NO_2 monitoring network is required from the Division prior to shutdown.**
- **(c) The permittee shall submit notifications and reports as specified in condition F25.**

(F2) FACILITY COMPRESSOR REQUIREMENTS [WAQSR Ch 6, Sec 2 Permit **MD-16631**; Ch 6, Sec 3(h)(i)(I)] **(Modified ***)**

- (a) The facility shall be limited to **no more than nineteen** engines consisting of the following:
  - (i) **Reserved**
  - (ii) Three (3) 777 hp Clark HRA-8 engines (units F022D-E5, -E7, and -E17);
  - (iii) **Reserved**
  - (iv) Seven (7) 583 hp Clark HRA-6 engines (units F022D-E10, -E11, -E12, -E13, -E14, -E19, and -E20);
  - (v) One (1) 102 hp diesel **fired** air compressor engine (unit F022D-E23)
  - **(vi) Six (6) Waukesha 5794GSI compressor engines, each equipped with AFRC and NSCR catalysts (units F022D-E24, -E25, -E26, -E27, -E28, and-E29).**
  - **(vii) Two (2) Caterpillar G3512B compressor engines, each equipped with oxidation catalysts (units E01 and E02).**
- (b) **Once removed from the facility, an engine cannot be installed and operated in its place (except as allowed for temporary engine replacement under condition F7).**
- **(c)** The permittee may expand the engine configuration beyond that described in paragraph (a) upon receipt of a construction or modification permit issued under Chapter 6, Section 2 of WAQSR that authorizes such change. The permittee must, however, submit an application to modify this operating permit within 12 months of commencement operation for any engine not already included in this permit.
- **(d) Upon installation, the stack heights for the Caterpillar G3512B compressor engines (units E01 and E02) shall be a minimum of 45 feet.**

Source-Specific Permit Conditions

(F3) VISIBLE EMISSIONS [WAQSR Ch 3, Sec 2; Ch 6, Sec 2 Permit **MD-14267A (corrected)] (Modified ***)**

- (a) Visible emissions from the two line heaters (units F022D-H5 & F022D-H6), **the Waukesha 5794GSI compressor engines (units F022D-E24 through –E29), and the Caterpillar G3512B compressor engines (units E01 and E02)** shall not exhibit greater than 20 percent opacity except for one period or periods aggregating not more than six minutes in any one hour of not more than 40 percent.
- (b) Visible emissions from the diesel fired air compressor engine (unit F022D-E23) shall not exceed 30 percent opacity except for periods not exceeding ten consecutive seconds.
- (c) The flare (unit F022D-Flare) shall be operated and maintained to be smokeless per WAQSR Ch 3, Sec 6(b)(i), with no visible emissions except for periods not to exceed a total of five minutes during any two consecutive hours as determined by 40 CFR 60, Appendix A, Method 22.
- (d) Visible emissions from any other single emissions source at this facility shall not exceed 40 percent opacity.

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(F4) ENGINE EMISSIONS [WAQSR Ch 6, Sec 3(h)(i)(A); Ch 6, Sec 2 Permits **MD-14267A (corrected) and MD-16631**] **(Modified ***)**

(a) NO_X, CO, **VOC, and formaldehyde** emissions from the units listed in Table I shall not exceed the specified limits.

(b) Compliance with the g/hp-hr limits is considered compliance with the lb/hr and TPY limits as long as each engine is operated at or below its site-rated capacity.

Table I: NO_X, CO, **VOC, and Formaldehyde** Emission Limits												
Unit ID #	Source Description	NO_X			CO			**VOC**			**Formaldehyde**	
		g/hp-hr	lb/hr	TPY	g/hp-hr	lb/hr	TPY	**g/hp-hr**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
F022D-E5, -E7, and -E17	Clark HRA-8 compressor engines		33.4	146.3		8.6	37.5					
F022D-E10 through -E14, -E19, & -E20	Clark HRA-6 compressor engines		25.1	109.8		6.4	28.2					
F022D-E24 through -E29	**Waukesha 5794GSI compressor engines**	**0.7**	**2.1**	**9.3**	**2.0**	**6.1**	**26.7**	**0.4**	**1.2**	**5.3**		
E01 and E02	**Caterpillar G3512B compressor engines**	**0.5**	**1.1**	**5.0**	**0.25**	**0.6**	**2.5**	**0.49**	**1.1**	**4.9**	**0.16**	**0.70**

(c) (i) Each Waukesha 5794GSI engine (F022D-E24 through -E29), 4-stroke rich burn engines >500 hp subject to 40 CFR 63 Subpart ZZZZ, shall comply with the following limitations:

(A) Formaldehyde emissions shall be reduced by 76 percent.

or

(B) Formaldehyde emissions shall be limited to 350 ppbvd @ 15% O_2.

(ii) Each Caterpillar G3512B engine (units E01 and E02), 4-stroke lean burn engines >250 hp subject to 40 CFR 63 Subpart ZZZZ, shall comply with the following limitations:

(A) CO emissions shall be reduced by 93 percent.

or

(B) Formaldehyde emissions shall be limited to 14 ppmvd @ 15% O_2.

(d) The permittee shall operate and maintain each Waukesha 5794GSI and Caterpillar G3512B engine (units F022D-E24 through –E29, E01, and E02), air pollution control equipment, and monitoring equipment according to good air pollution control practices at all times, including startup, shutdown, and malfunction.

(F5) FUEL BURNING EQUIPMENT [WAQSR Ch 3, Sec 3]

(a) NO_X emissions from the line heaters (units F022D-H5 and -H6) shall not exceed 0.20 lb/MMBtu heat input.

(b) NO_X emissions from the hot oil heaters (units F022D-H1 and -H3) shall not exceed 0.23 lb/MMBtu heat input.

(F6) COMMENCEMENT OF CONSTRUCTION [WAQSR Ch 6, Sec 2 Permit MD-16631 and waiver P0014933 (corrected)] (Modified *)**

(a) The date of commencement of construction of the Caterpillar G3512B engines (units E01 and E02) shall be reported to the Administrator within 30 days of commencement, as specified in condition F20(a). Approval to construct or modify shall become invalid if construction is not commenced by November 5, 2016 or if construction is discontinued for a period of 24 months or more.

(b) Approval to construct or modify the facility as authorized under waiver P0014933 (corrected) shall become invalid if construction is discontinued for a period of 24 months or more.

(c) The Administrator may extend the time period based on satisfactory justification of the requested extension.

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(F7) ENGINE REPLACEMENT [WAQSR Ch 6, Sec 3(h)(i)(I)] **(Modified ***)**

(a) Permanent replacement of an engine must be evaluated by the Division under Ch 6, Sec 2 of WAQSR to determine appropriate permitting action and evaluate the need for additional requirements resulting from the permanent replacement.

(b) **Should an engine break down or require an overhaul during the term of this permit, the permittee may bring on site and operate a temporary replacement engine until repairs are made.** The temporary replacement unit shall be identical or similar to the unit replaced with emission levels at or below those of the unit replaced. The permittee shall notify the Division in writing of such **temporary** replacement within five working days **and include the following:**

(i) The startup **date** of the **temporary** replacement **unit**; and

(ii) A statement regarding the applicability of any New Source Performance Standards (NSPS) in 40 CFR 60; any National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63; **and Compliance Assurance Monitoring (CAM) in WAQSR Ch 7, Sec 3 for the temporary replacement unit.**

(F8) OPERATION REQUIREMENTS [WAQSR Ch 6, Sec 2 Permits MD-1136 & **MD-14267A (corrected)**]

(a) Emissions from the 10,000 bbl storage tank (unit F022D-TK-101) shall be controlled with the VRU (unit F022D-VRU). During periods when the VRU (unit F022D-VRU) is not operational, all vapors from the storage tank (unit F022D-TK-101) shall be directed to the flare (unit F022D-Flare).

(b) VOC and HAP emissions associated with truck loading shall be controlled with the flare (unit F022D-Flare) for combustion. No loading shall occur if a pilot light temperature of less than 250°F is detected.

(c) The permittee shall maintain and operate the flare (unit F022D-Flare) during all periods of truck loading and all periods when the VRU (unit F022D-VRU) is not operational such that it remains effective as a viable emissions control device.

Testing Requirements

(F9) EMISSIONS TESTING [W.S. 35-11-110, **Ch 6, Sec 2 Permit MD-16631] (Modified ***)**

(a) The Division reserves the right to require additional testing as provided under condition G1 of this permit. **The Division shall specify the necessary test method(s) and procedure(s) prior to the test, which may include the following** test methods found at 40 CFR 60, Appendix A:

(i) For visible emissions from the flare, Method 22.

(ii) For visible emissions from all other units, Method 9.

(iii) **For NO_X, CO, and VOC emissions from the engines, testing shall follow 40 CFR 60 Subpart JJJJ §60.4244, except that §60.8 only applies to engines subject to 40 CFR 60 Subpart JJJJ.**

(iv) For **other** NO_X emissions **sources**, Methods 1-4 and 7 or 7E.

(v) For **other** CO emissions **sources**, Methods 1-4 and 10.

(vi) **For formaldehyde:**

(A) **To demonstrate compliance with condition F4(a) and (b): formaldehyde testing shall follow EPA reference methods and a Division-approved formaldehyde test method. Formaldehyde emissions in terms of lb/hr shall be calculated using the methodology in Sections 10.1.1.1 and 10.1.1.2 of the State of Wyoming's Portable Analyzer Protocol. The monitoring protocol can be downloaded at http://deq.wyoming.gov/aqd/title-v/ or is available from the Division upon request.**

(B) **To demonstrate compliance with condition F4(c): formaldehyde emissions shall be tested in accordance with 40 CFR 63 Subpart ZZZZ §§63.6615 and 63.6620.**

(vii) For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions.

(b) Unless otherwise specified, testing shall be conducted in accordance with WAQSR Ch 5, Sec 2(h).

(F10) ENGINE EMISSIONS TESTING [WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permits **MD-14267A (corrected) and MD-16631; 40 CFR 63 Subpart ZZZZ] (Modified ***)**

(a) The permittee shall measure NO_X, CO, **and VOC** emissions from each **Waukesha 5794GSI engine (units F022D-E24 through -E29) at least once every 12 calendar months for comparison with**

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the limits in condition F4. Testing shall be conducted in accordance with the methods specified in condition F9(a)(iii and vi).

(b) The permittee shall measure NO_X emissions from each Clark compressor engine (units F022D-E5, -E7, -E10 through -E14, -E17, -E19, and -E20) at least once every calendar quarter for comparison with the emission limits specified in condition F4.

(c) The permittee shall measure CO emissions from each Clark compressor engine (units F022D-E5, -E7, -E10 to through -E14, -E17, -E19, and -E20) at least once every five years for comparison with the emission limits in condition F4.

(d) The permittee shall measure NO_X and CO emissions from each Clark compressor engine (units F022D-E5, -E7, -E10 to -E14, -E17, -E19, and -E20) using the EPA reference methods described in condition F9 or the Division's Portable Analyzer Monitoring Protocol. The monitoring protocol can be downloaded at http://deq.wyoming.gov/aqd/title-v/ or is available from the Division upon request.

(e) The permittee shall measure NO_X, CO, VOC and formaldehyde emissions from each Caterpillar G3512B compressor engine (units E01 and E02) for comparison with the emission limits in condition F4 as follows:

(i) In accordance with WAQSR Ch 6, Sec 2(j), initial performance tests shall be conducted within 30 days of achieving maximum design rate but not later than 90 days after initial start-up. If the maximum design rate is not achieved within 90 days of start-up, the Administrator may require testing be done at the rate achieved and again when the maximum rate is achieved. Prior to any performance testing required by this section (i), a test protocol shall be submitted to the Division for approval, at least 30 days prior to testing.

(A) Testing for NO_X, CO and VOC emissions shall follow 40 CFR Part 60 Subpart JJJJ §60.4244, except that §60.8 only applies to engines subject to Subpart JJJJ. For the initial performance test, testing shall not consist of Method 19 or ASTM Methods.

(B) Testing for formaldehyde emissions shall consist of three 1-hour tests following EPA Reference Methods and a Division approved formaldehyde test method.

(C) The engine horsepower, inlet temperature to the catalyst, pressure drop across the catalyst, and other operating conditions shall be recorded during each test run.

(D) Testing shall be conducted per 40 CFR 63 Subpart ZZZZ §63.6610 and §63.7 to demonstrate compliance with condition F4(c)(ii).

(ii) Periodic tests to demonstrate compliance with the NO_X, CO, VOC and formaldehyde limits in conditions F4(a) and (b) from each engine are required at least once within twelve months after completion of the initial performance test or the last periodic test. Testing shall be conducted in accordance with the methods specified in conditions F9(a)(iii) and (vi)(A).

(iii) Periodic tests to demonstrate compliance with the CO or formaldehyde emissions in condition F4(c)(ii) from each engine are required at least once within twelve calendar months after completion of the initial performance test or the last periodic test. Each engine shall be tested in accordance with the methods specified in conditions F9 (vi)(B).

(f) For any engine installed:

(i) The permittee shall notify the Division within 24 hours if any engine testing/monitoring shows operation outside the emission limits specified in condition F4.

(ii) By no later than seven calendar days of such testing/monitoring event, the permittee shall repair and retest/monitor the affected engine to demonstrate the engine has been returned to operation within the limits specified in condition F4.

(iii) Compliance with this condition regarding repair and retesting/monitoring shall not be deemed to limit the authority of the Division to cite the owner or operator for an exceedance of the emission limits for any testing/monitoring which shows noncompliance.

(g) Notification of each test date shall be provided to the Division as specified in condition F20(c) and test results shall be submitted to the Division as specified in condition F21.

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(F11) FUEL BURNING EQUIPMENT TESTING [WAQSR Ch 6, Sec 3(h)(i)(C)(l)] **(Modified ***)**

(a) The permittee shall measure NO_X emissions from the hot oil heaters (units F022D-H1 and -H3) at least once every two years for comparison with the limits specified in condition **F5**. If emission results from biennial performance tests are less than or equal to 75 percent of the emission limit for the unit, the frequency of subsequent performance tests may be reduced to once every four years. If the results of any subsequent performance test exceed 75 percent of the emission limit, biennial testing shall resume.

(b) The permittee shall measure NO_X emissions using the EPA reference methods described in condition **F9** or the Division's Portable Analyzer Monitoring Protocol. **The monitoring protocol can be downloaded at http://deq.wyoming.gov/aqd/title-v/ or is available from the Division upon request.**

Monitoring Requirements

(F12) VISIBLE EMISSIONS MONITORING
[WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permit **MD-14267A (corrected)**]

(a) Periodic monitoring for visible emissions from the all of the natural gas fired compressor engines and heaters shall consist of monitoring the type of fuel used to ensure natural gas is the sole fuel source for these units.

(b) The permittee shall perform, at minimum, daily visual observations of the flare (unit F022D-Flare) to determine the presence of visible emissions. Observation of any visible emissions shall prompt immediate inspection and, if necessary, corrective action.

(F13) CATALYTICALLY CONTROLLED COMPRESSOR ENGINE EMISSIONS MONITORING
[WAQSR Ch 6, Sec 3(h)(i)(C)(I), **Ch 6 Sec 2 Permits MD-14267A (corrected) and MD-16631**, and Ch 7, Sec 3(c)(li)] **(Modified ***)**

(a) For **NO_X** emissions **from the Waukesha 5794GSI compressor engines (units F022D-E24 through -E29)**, the permittee shall adhere to the compliance assurance monitoring (CAM) plan attached as Appendix B of this permit and shall conduct monitoring as follows:

(i) (A) **The permittee shall operate the engines within the catalyst inlet temperature range of 750°F to 1250°F.** The permittee shall **monitor and** record the **inlet** catalyst temperature **on each engine, at minimum, once daily.**

(B) **The permittee shall monitor and record the pressure differential across the engine catalyst at minimum monthly. If the pressure changes by more than two inches of water at 100 percent load, plus or minus 10 percent, from the reference pressure drop, corrective action shall be taken.**

(C) The reference pressure drop shall be established during the initial performance testing required by permit MD-14627A (corrected). When the catalyst is replaced, the reference pressure drop shall be reestablished during subsequent periodic testing required by condition F10 of this permit.

(D) The permittee shall perform **NO_X** emissions testing in accordance with condition **F10**(a) for comparison with the emission limits specified in condition **F4**, and to verify the correlation between CAM indicators and **NO_X** emissions. The permittee shall measure the CAM indicators during the tests. Following each test, the permittee shall evaluate the data from the test, together with data from previous testing, to determine if the indicator ranges in the CAM plan should be revised.

(ii) **An excursion, which is considered** operation outside of the ranges established in the approved CAM plan, shall trigger immediate inspection and, if necessary, corrective action.

(iii) The permittee shall maintain the compressor engines in accordance with the Inspection/ Preventative Maintenance (I/PM) Plan included with the approved CAM plan.

(iv) The permittee shall follow all other applicable requirements under conditions CAM-1 through CAM-4 of this permit.

(b) **The Waukesha 5794GSI compressor engines (units F022D-E24 through -E29) shall also be monitored in accordance with 40 CFR 60 Subpart JJJJ for CO emissions. Though CAM does not apply to VOC or formaldehyde emissions from the Waukesha 5794GSI compressor engines (units F022D-E24 through -E29), the permittee shall conduct monitoring for these**

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engines in accordance with the monitoring specified in the CAM plan, attached as Appendix B of this permit.

(c) **Upon startup of each Caterpillar G3512B compressor engines (units E01 and E02), the permittee shall monitor each engine and catalyst as follows:**

(i) **Install, operate, and maintain a thermocouple to measure the temperature at the inlet of the catalyst. The inlet temperature shall be monitored and recorded at least monthly. If the temperature is outside the range of 450°F to 1350°F, corrective action shall be taken.**

(ii) **Install, operate, and maintain a device to measure the pressure drop across the catalyst. The pressure drop across the catalyst shall be monitored and recorded at least monthly. If the pressure changes by more than two inches of water at 100 percent load, plus or minus 10 percent, from the reference pressure drop, as determined below, corrective action shall be taken.**

(A) **Reference pressure drop for each engine shall be established during the initial performance test.**

(B) **When a catalyst is replaced, the reference pressure drop shall be re-established for that engine during the first test conducted in compliance with condition F10(e) which occurs after the catalyst replacement.**

(iii) **Compliance with 40 CFR 63 Subpart ZZZZ §63.6605 and §63.6640 can be used in lieu of the monitoring and maintenance requirements for the Caterpillar G3512B compressor engines (units E01 and E02) in paragraphs (c)(i) and (c)(ii) of this condition and condition F4(d).**

(F14) CLARK COMPRESSOR ENGINE EMISSIONS MONITORING [WAQSR Ch 6, Sec 3(h)(i)(C)(I)] **(Modified ***)**

NO_X and CO emissions monitoring for the Clark compressor engines (units F022D-E5, -E7, **-E10** through **-E14**, -E17, **-E19 and** -E20) shall consist of the emissions testing required by conditions **F10**(b) and (c).

(F15) FUEL BURNING EQUIPMENT EMISSIONS MONITORING [WAQSR Ch 6, Sec 3(h)(i)(C)(I)] **(Modified ***)**

Periodic monitoring of NO_X emissions from the hot oil heaters (units F022D-H1 and -H3) shall consist of the emissions testing required by condition **F11**.

(F16) OPERATIONS MONITORING [WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permit **MD-14267A (corrected) and Waiver wv-11125**]

(a) (i) The permittee shall monitor for periods of time when the 10,000 bbl storage tank (unit F022D-TK-101) is in active operation and the VRU (unit F022D-VRU) is not operational.

(ii) Times when the VRU is not operational shall be cross-referenced with the thermocouple reading on the flare (unit F022D-Flare) to confirm that the flare pilot light temperature is at least 250°F.

(iii) The permittee shall monitor and record all periods of time when both the VRU and the flare (units F022D-VRU & F022D-Flare) are not operational. If the 10,000 bbl storage tank is in active operation during such periods, that shall be so noted.

(b) The permittee shall also monitor for the presence of the flare pilot flame during all periods of active truck loading using a thermocouple or any other equivalent device to detect and record the presence of the flame.

(c) The permittee shall monitor the amount of gas sent to the facility which is associated with the Chesapeake Gas Inlet well connection project.

Recordkeeping Requirements

(F17) TESTING AND MONITORING RECORDS **(Modified ***)**

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permits **MD-14267A (corrected) and MD-16631**]

(a) For any testing required under condition **F9**, other than Method 9 or Method 22 observations, and for the testing and monitoring required under conditions **F10** and **F11**, the permittee shall record, as applicable, the following:

(i) The date, place, and time of sampling, measurements, or observations;

(ii) The date(s) any analyses were performed;

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(iii) The company or entity and individual(s) that performed the observation;
(iv) The analytical or observation techniques, or methods used;
(v) The results of such analyses or observations **in units of the standard**;
(vi) The operating conditions as they existed at the time of **testing, monitoring, or observation including, for engines, horsepower, inlet temperature to the catalyst, and pressure drop across the catalyst**; and
(vii) Any corrective actions taken.

(b) For any Method 9 observations required by the Division under condition **F9**, the permittee shall keep field records in accordance with Section 2.2 of Method 9.

(c) For any Method 22 observations required by the Division under condition **F9**, the permittee shall keep field records in accordance with Sections 11.2 and 11.5 of Method 22.

(d) For the daily visual observations of the flare required by condition **F12**(b), the permittee shall maintain records of each visible observation, including the date, time, and duration of events when the flare exhibits visible emissions for more than five consecutive minutes and any corrective actions taken.

(e) If weather conditions prevent an observation from being made in accordance with condition **F12**(b), the visible emissions observer shall document those conditions.

(f) **For the monitoring required under condition F13(c), the permittee shall record the catalyst inlet temperature, pressure drop, any maintenance and/or corrective action triggered, the reference pressure drop for each engine at the time of the monitoring, and the dates of catalyst replacement for each engine.**

(g) **The applicant shall maintain records of the data generated by the ambient NO_2 monitoring network required in condition F1.**

(h) The permittee shall retain on-site at the facility the records of each test, measurement, or observation and support information for a period of at least five years from the date of the test, measurement, or observation.

(F18) CAM RECORDS [WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 7, Sec 3(i)(ii); **Ch 6, Sec 2 Permit MD-14267A (corrected)] (Modified ***)**

(a) For the CAM required under condition **F13(a)**, the permittee shall maintain records of the following:
(i) Indicator measurements, including the date and time of measurement;
(ii) Inspection/Preventative Maintenance records in accordance with the CAM plan;
(iii) For the **annual** testing required under condition **F10**(a), the permittee shall record the inlet and temperature of the catalyst and pressure differential across the catalyst;
(iv) The date, time, and duration of any excursions as well as the CAM indicator value(s) during each excursion; and
(v) Monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to WAQSR Ch 7, Sec 3(h), any activities undertaken to implement a Quality Improvement Plan (QIP), and other supporting information required to be maintained under WAQSR Ch 7, Sec 3.

(b) The permittee shall retain on-site at the facility the records of each test, measurement, or observation and support information for a period of at least five years from the date of the test, measurement, or observation.

(F19) OPERATION RECORDS [WAQSR Ch 6, Sec 2 Permits MD-1136 and **MD-14267A (corrected)**; Waiver wv-11125; 40 CFR 60 Subpart Kb]

(a) The permittee shall maintain records of the following:
(i) The date and duration of time during active operation of the 10,000 bbl storage tank (unit F022D-TK-101) that the VRU (unit F022D-VRU) is not operational. Times when the VRU is not operational shall be cross referenced with the temperature reading on the flare (unit F022D-Flare) pilot flame.
(ii) The date and duration of time when both the VRU and the flare are not operational. If the 10,000 bbl storage tank is in active operation during such periods, that shall be recorded.

(b) The permittee shall maintain records noting periods of time when the flare (unit F022D-Flare) pilot flame temperature is less than 250°F during truck loading operations.

(c) The permittee shall maintain monthly records of the amount of gas sent to the facility which is associated with the Chesapeake Gas Inlet well connection project.

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(d) The permittee shall retain on-site at the facility the records required by this condition for a period of at least five years from the date the information is recorded.

Reporting Requirements

(F20) NOTIFICATIONS OF START-UP, TESTING, AND SHUTDOWN [WAQSR Ch 6, Sec 2 Permits MD-14267A (corrected), MD-16631, and Waivers P0000716 and P0014933 (corrected)] (Modified *)**

(a) The permittee shall provide written notification of the commencement of construction for each of the Caterpillar G3512B compressor engines (units E01 and E02) within 30 days of commencement.

(b) Written notification of the actual date of initial start-up for each Caterpillar G3512B compressor engine (units E01 and E02) is required within 15 days of start-up in accordance with WAQSR Ch 6, Sec 2(i)(ii). Such notification shall be submitted on a complete Engine Installation/Removal form. The form can be downloaded from the Air Quality Division website http://deq.wyoming.gov/aqd/new-source-review/ or obtained from the Air Quality Division. With the start-up notification for these engines, the permittee shall address the applicability of 40 CFR 60 Subpart JJJJ.

(c) For the testing required by conditions F10(a-e), and F11(a), the permittee shall notify the Division as follows:

(i) For engines subject to the requirements of 40 CFR 60 Subpart JJJJ, the permittee shall provide test notification as specified in §60.8 of 40 CFR 60.

(ii) For engines subject to the requirements of 40 CFR 63 Subpart ZZZZ, the permittee shall provide test notifications as specified in §63.7(b) and (c) and §63.9(b).

(iii) For other sources, notification of the test date shall be provided at least 15 days prior to testing.

(d) Written notifications of the actual date of initial startup of each tank authorized by waiver P0014933 (corrected) are required within 15 days after startup in accordance with WAQSR Ch 6, Sec 2(i)(ii).

(e) Upon shutdown and removal of an engine from the facility, written notification is required within 15 days of removal. Such notification shall be submitted on a complete Engine Installation/Removal form.

(f) Notifications may be provided electronically through the Division's IMPACT system (https://airimpact.wyo.gov), or in writing to the DEQ Air Quality Contact listed on page 3 of this permit.

(F21) TEST REPORTS [WAQSR **Ch 6, Sec 2 Permits MD-14267A (corrected) and MD-1663;** Ch 6, Sec 3(h)(i)(C)(III)] **(Modified ***)**

(a) The permittee shall report the results of any emissions tests required under conditions **F9, F10** and **F11** within 45 days of conducting the tests.

(i) However, if testing for any engine shows operation out of compliance, the Division must be notified within 24 hours as indicated under condition F10(f).

(ii) The reports shall also include the evaluation of the CAM indicator ranges as required by condition F13(a). If the evaluation indicates the CAM range(s) need(s) to be revised, the permittee shall submit a revised CAM plan to the Division, along with a request to administratively amend this permit, within 60 days of completing the test.

(b) The reports shall include the information specified under condition **F17**, reference this permit condition (**F21**), and be submitted to the Division in accordance with condition G4.

(F22) MONITORING REPORTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 7, Sec 3 (i); 40 CFR 60 Subpart Kb] **(Modified ***)**

(a) The following shall be reported to the Division by January 31 and July 31 each year:

(i) Documentation that the emissions units are firing natural gas as specified in condition **F12(a)**.

(ii) Summary results of the visible observations required by condition **F12(b)**. Only monitoring days during which visible emissions are observed for more than five consecutive minutes and any corrective actions taken upon observing visible emissions need be included in the report. If no

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no five-minute visible emission events are observed during the reporting period, this shall be stated in the report.

(iii) The results of CAM required under condition **F13(a)** for **each of the Waukesha 5794GSI compressor engines (units F022D-E24 through –E29)**, which shall include the following:

(A) Summary information on the number, duration, and cause of excursions, as applicable, and the corrective actions taken;

(B) Summary information on the number, duration, and cause for monitor downtime incidents; and

(C) A description of the action taken to implement a QIP (if required) during the reporting period as specified in Chapter 7, Section 3(h). Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has reduced the likelihood of similar excursions.

(iv) For emissions from the **10,000 bbl** storage tank **(unit FD022D-TK101)**, whether the permittee has adhered to the operation requirements specified in condition **F8**(a). Only periods during which the VRU was not operational and the flare pilot flame temperature was less than 250°F, as well as whether the storage tank was in active operation during each period, need to be included in the report. If no such instances are observed during the reporting period, this shall be stated in the report.

(v) For emissions from truck loading activities, whether the permittee has adhered to the operation requirements specified in condition **F8**(b). Only monitoring during which the flare pilot flame temperature was less than 250°F during truck loading operations need to be included in the report. If no such instances are observed during the reporting period, this shall be stated in the report.

(vi) The number, duration, and cause of any excursions from the temperature and pressure drop ranges specified in condition F13(c) for each of the Caterpillar G3512B compressor engines (units E01and E02). The report shall include a summary of any maintenance and/or corrective actions taken; if no excursions occurred during the reporting period, this shall be stated in the report.

(b) By January 31 each year, the permittee shall report the amount of gas sent to the facility associated with the Chesapeake Gas Inlet well connection project for the previous calendar year.

(c) All instances of deviations from the conditions of this permit must be clearly identified in each report.

(d) The reports shall reference this permit condition (**F22**) and be submitted in accordance with condition G4.

(F23) GREENHOUSE GAS REPORTS [W.S. 35-11-110]

The permittee shall submit to the Division a summary any report(s) required to be submitted to the EPA under 40 CFR Part 98.

(a) The report(s) shall be submitted to the Division within 60 days of submission EPA, in a format as specified by the Division.

(b) The report(s) shall be submitted in accordance with condition G4(a)(i) of this permit, to the attention of the Division's Emission Inventory Program. A copy need not be sent to the DEQ Air Quality contact.

(F24) REPORTING EXCESS EMISSIONS & DEVIATIONS FROM PERMIT REQUIREMENTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III)]

(a) General reporting requirements are described under the General Conditions of this permit. The Division reserves the right to require reports as provided under condition G1 of this permit.

(b) Emissions which exceed the limits specified in this permit and which are not reported under a different condition of this permit shall be reported annually with the emission inventory unless specifically superseded by condition G17, condition G19, or other condition(s) of this permit. The probable cause of such exceedance, the duration of the exceedance, the magnitude of the exceedance, and any corrective actions or preventative measures taken shall be included in the annual report. For sources and pollutants which are not continuously monitored, if at any time emissions exceed the limits specified in this permit by 100 percent, or if a single episode of emission limit exceedance spans a period of 24 hours or more, such exceedance shall be reported to the Division within one working day of the exceedance. (Excess emissions due to an emergency shall

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be reported as specified in condition G17. Excess emissions due to unavoidable equipment malfunction shall be reported as specified in condition G19.)

(c) Any other deviation from the conditions of this permit shall be reported to the Division in writing within 30 days of the deviation or discovery of the deviation.

(F25) AMBIENT MONITORING NOTIFICATIONS AND REPORTS
[WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 6, Sec 2 Permit MD-14267A (corrected) and Division Letter dated April 2, 2015] (Modified *)**

(a) Should an exceedance occur for the monitoring network required by condition F1, the permittee shall notify the Division's Monitoring Section Project Advisor via e-mail within 15 days of any monitored exceedance.

(b) The data generated by the ambient monitoring network required by condition F1 shall be submitted in a Division approved format, within 60 days following the end of each quarter.

(i) In the event of an exceedance the following shall also submitted with the quarterly report:

(A) A narrative of the event including meteorological/air quality parameters, facility activities, operations and mitigation/control information for the time frame in which the exceedance occurred.

(B) If the facility wishes to have the exceedance flagged as an exceptional event under 40 CFR 50.14, any additional information must be submitted to the Division under an exceptional event documentation package.

(ii) Ambient monitoring network reports shall reference this condition (F25) and be submitted in accordance with condition G4 of this permit. A copy of each report shall also be submitted to the Division's Ambient Monitoring Program.

Accidental Release Prevention Requirements

(F26) ACCIDENTAL RELEASE PREVENTION REQUIREMENTS [40 CFR Part 68]

(a) The permittee shall meet all requirements of 40 CFR Part 68 as they apply to the facility.

(b) The permittee shall submit, as part of the annual compliance certification submitted under condition C1 of this permit, a certification statement concerning the facility's compliance with all requirements of 40 CFR Part 68, including the registration and submission of a Risk Management Plan.

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WAQSR CHAPTER 7, SECTION 3
COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS
(Modified *)**

WAQSR Ch 7, Sec 3 is available at http://soswy.state.wy.us/Rules/ or from the Division upon request.

(CAM-1) COMPLIANCE ASSURANCE MONITORING REQUIREMENTS [WAQSR Ch 7, Sec 3(b) and (c)]
The permittee shall follow the CAM plan attached as Appendix B of this permit and meet all CAM requirements of WAQSR Chapter 7, Section 3 as they apply to the **Waukesha 5794GSI** compressor engines **(units F022D-E24 through –E29)** as identified in condition **F13**. Compliance with the source specific monitoring, recordkeeping, and reporting requirements of this permit meets the monitoring, recordkeeping, and reporting requirements of WAQSR Ch 7, Sec 3, except for additional requirements specified under conditions CAM-2 through CAM-4.

(CAM-2) OPERATION OF APPROVED MONITORING [WAQSR Ch 7, Sec 3(g)]

(a) At all times, the permittee shall maintain the monitoring under this section, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or at all required intervals) at all times that the pollutant specific emissions unit is operating.

(c) Upon detecting an excursion, the permittee shall restore operation of the pollutant-specific emission unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices. The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion.

(d) If the permittee identifies a failure to achieve compliance with an emission limit for which the monitoring did not provide an indication of an excursion while providing valid data, or the results of compliance or performance testing documents a need to modify the existing indicator ranges, the permittee shall promptly notify the Division and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes.

(CAM-3) QUALITY IMPROVEMENT PLAN (QIP) REQUIREMENTS [WAQSR Ch 7, Sec 3(h)]

(a) If the Division or the EPA Administrator determines, based on available information, that the permittee has used unacceptable procedures in response to an excursion or exceedance, the permittee may be required to develop and implement a Quality Improvement Plan (QIP).

(b) If required, the permittee shall maintain a written Quality Improvement Plan (QIP) and have it available for inspection.

(c) The plan shall include procedures for conducting one or more of the following:
   - (i) Improved preventative maintenance practices.
   - (ii) Process operation changes.
   - (iii) Appropriate improvements to control methods.
   - (iv) Other steps appropriate to correct control.
   - (v) More frequent or improved monitoring (in conjunction with (i) - (iv) above).

(d) If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(e) Following implementation of a QIP, upon any subsequent determination under paragraph (a) above, the Division may require the permittee to make reasonable changes to the QIP if the QIP failed to address the cause of control device problems, or failed to provide adequate procedures for correcting control device problems as expeditiously as practicable.

(f) Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limit(s) or any existing monitoring, testing, reporting, or recordkeeping requirements that may be applicable to the facility.

(CAM-4) SAVINGS PROVISIONS [WAQSR Ch 7, Sec 3(j)]
Nothing in the CAM regulations shall excuse the permittee from compliance with any existing emission limit or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may be applicable to the facility.

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WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND 40 CFR 60 SUBPART Kb REQUIREMENTS FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS (INCLUDING PETROLEUM LIQUID STORAGE VESSELS) FOR WHICH CONSTRUCTION, RECONSTRUCTION, OR MODIFICATION COMMENCED AFTER JULY 23, 1984
(Modified *)**

SUBPART Kb REQUIREMENTS [40 CFR 60 Subparts **A and** Kb; WAQSR Ch 5, Sec 2; Ch 6, Sec 2 Permit MD-1136]

The permittee shall meet all **applicable** requirements of 40 CFR 60 Subparts **A and** Kb and WAQSR Ch 5, Sec 2 as they apply to **each storage vessel as defined under §60.110b, including** the 10,000 bbl storage tank (unit F022D-TK-101).

WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND 40 CFR 60 SUBPART KKK REQUIREMENTS FOR EQUIPMENT LEAKS OF VOC FROM ONSHORE NATURAL GAS PROCESSING PLANTS and VV FOR EQUIPMENT LEAKS OF VOC IN THE SYNTHETIC ORGANIC CHEMICALS MANUFACTURING INDUSTRY
(Modified *)**

SUBPART KKK REQUIREMENTS [40 CFR 60 Subparts A, KKK and VV; WAQSR Ch 5, Sec 2; **Ch 6, Sec 2 Permit MD-14267A (corrected)**]

The permittee shall meet all requirements of 40 CFR 60 Subparts **A and** KKK and WAQSR Ch 5, Sec 2 as they apply to affected facilities in onshore natural gas processing plants as defined under §60.630, including sources at Plant Two, the stabilizer equipment, and the Chesapeake Gas Inlet well connection project.

WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND 40 CFR 60 SUBPART JJJJ REQUIREMENTS FOR STATIONARY SPARK IGNITION INTERNAL COMBUSTION ENGINES
(Modified *)**

SUBPART JJJJ **REQUIREMENTS** [40 CFR 60 Subparts **A and** JJJJ; WAQSR Ch 5, Sec 2; **Ch 6, Sec 2 Permit MD-16631**]

The permittee shall meet all requirements of 40 CFR 60 Subparts **A and** JJJJ and WAQSR Ch 5, Sec 2, as they apply to affected stationary spark ignition (SI) internal combustion engines (ICE). (As required by condition **F7(b)**, if an engine is replaced or reconstructed, subpart applicability will need to be reevaluated and a statement regarding applicability submitted to the Division.) For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. An affected source is defined at §60.4230, **including the six 1,380 hp Waukesha 5794GSI engines (units F022D-E24 through -E29) and two Caterpillar G3512B engines (units E01 and E02).**

On June 9, 2015, engines F022D-E5, -E7, -E10 through -E14, -E17, -E19, and -E20 were not subject to Subpart JJJJ according to information submitted to the Division by the permittee. The permittee shall determine the applicability of Subpart JJJJ to engines E01 and E02 upon construction of each engine.

WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND 40 CFR 60 SUBPART OOOO REQUIREMENTS FOR CRUDE OIL AND NATURAL GAS PRODUCTION, TRANSMISSION AND DISTRIBUTION
(Modified *)**

SUBPART OOOO REQUIREMENTS [40 CFR 60 Subparts A and OOOO; WAQSR Ch 5, Sec 2; Ch 6 Sec 2 Permits and Waivers MD-14267A (corrected), MD-16631, P0000716 and P0014933 (corrected)]

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and OOOO and WAQSR Ch 5, Sec 2 as they apply to affected facilities as specified under §60.5365.

The subparts are available at http://www.gpoaccess.gov/cfr/retrieve.html, or from the Division upon request.

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WAQSR CHAPTER 5, SECTION 3 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) AND 40 CFR 63 SUBPART HH REQUIREMENTS FOROIL AND NATURAL GAS PRODUCTION FACILITIES

(Modified *)**

SUBPART HH REQUIREMENTS [40 CFR 63 Subparts **A and** HH; WAQSR Ch 5, Sec 3; **Ch 6 Sec 2 Permit MD-14267A (corrected)**]

The permittee shall meet all requirements of 40 CFR 63 Subparts **A and** HH and WAQSR Ch 5, Sec 3, as they apply to affected sources as defined in §63.760, located at oil and natural gas production facilities. **For** major sources, **the affected source includes the equipment described in §63.760(b)(1), including** ancillary equipment and compressors.

WAQSR CHAPTER 5, SECTION 3 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) AND 40 CFR 63 SUBPART ZZZZ REQUIREMENTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

(Modified *)**

SUBPART ZZZZ REQUIREMENTS [40 CFR 63 Subparts **A and** ZZZZ; WAQSR Ch 5, Sec 3; **Ch 6, Sec 2 Permits MD-14267A (corrected) and MD-16631**]

The permittee shall meet all requirements of 40 CFR 63 Subparts **A and** ZZZZ and WAQSR Ch 5, Sec 3, as they apply to each affected source as indicated in §63.6590(a). An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. (As required by condition **F7(b)**, if an engine is replaced or reconstructed, subpart applicability will need to be re-evaluated, and a statement regarding applicability submitted to the Division.) This facility is **currently identified as a** major source of HAP emissions. Affected sources at this facility include three (3) 777 hp Clark HRA-8 engines, seven (7) 583 hp Clark HRA-6 engines, one (1) 102 hp diesel fired air compressor engine, **six (6) 1,380 hp Waukesha 5794GSI engines, and two (2) 1,035 hp Caterpillar G3512B compressor engines.**

On July 21, 2015, according to information submitted to the Division by the permittee, the three (3) 777 hp Clark HRA-8 engines and seven (7) 583 hp Clark HRA-6 engines do not have to meet the requirements of subpart ZZZZ; and the 102 hp diesel fired air compressor engine is only subject to the maintenance requirements and operating hour limitations of subpart ZZZZ.

WAQSR CHAPTER 5, SECTION 3 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) AND 40 CFR 63 SUBPART DDDDD REQUIREMENTS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS

(Modified *)**

SUBPART DDDDD REQUIREMENTS [40 CFR 63 Subparts A and DDDDD; WAQSR Ch 5, Sec 3; **Ch 6 Sec 2 Permit MD-14267A (corrected)]**

The permittee shall meet all requirements of **40 CFR 63 Subparts A and DDDDD and** WAQSR Ch 5, Sec 3, as they apply to **owners or operators of industrial, commercial, or institutional boilers or process heaters as defined in §63.7575 that are located at, or are part of, a major source of HAPs as defined in §63.2, except that for oil and natural gas production facilities, a major source of HAPs is as defined in §63.761 (40 CFR Part 63 Subpart HH). The types of boilers and process heaters listed in §63.7491 are not subject to Subpart DDDDD. This subpart applies to:**

(a) The collection of existing industrial, commercial, and institutional boilers and process heaters within a subcategory, including the hot oil heaters (units F022D-H1 & F022D-H3), and the line heaters (units F022D-H5 & F022D-H6).

(b) New or reconstructed industrial, commercial, or institutional boilers or process heaters.

The subparts are available at http://www.gpoaccess.gov/cfr/retrieve.html, or from the Division upon request.

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COMPLIANCE CERTIFICATION AND SCHEDULE (Modified ***)

Compliance Certification [WAQSR Ch 6, Sec 3(h)(iii)(E)]

(C1) (a) The permittee shall submit by January 31 each year a certification addressing compliance with the requirements of this permit. The certification shall be submitted as a stand-alone document separate from any monitoring reports required under this permit.

(b) (i) **For the ambient monitoring program, the permittee shall assess compliance with condition F1 by reviewing the records required by condition F17(g), and verifying reports were submitted in accordance with condition F25.**

(ii) For visible emissions, the permittee shall assess compliance with condition **F3** by conducting the monitoring required by condition **F12**.

(iii) For NO_X, CO, **VOC and formaldehyde** emissions from the compressor engines, the permittee shall assess compliance with condition **F4** by conducting the testing required by condition **F10** and the monitoring required by condition **F13**.

(iv) For NO_X emissions from the hot oil heaters, the permittee shall assess compliance with condition **F5** by conducting testing required by condition **F11**.

(v) For the VRU and flare operation requirements, the permittee shall assess compliance with condition **F8** by conducting monitoring required by condition **F16**.

(vi) For greenhouse gas reporting, the permittee shall assess compliance with condition **F23** by verifying reports were submitted in accordance with conditions **F23**(a) and (b).

(vii) For accidental release prevention requirements, the permittee shall assess compliance with condition **F26** by verifying that a certification statement was submitted as specified in **F26**(b).

(viii) For the catalytically controlled compressor engines subject to the requirements of WAQSR Chapter 7, Section 3, the permittee shall assess compliance with condition CAM-1 by conducting the monitoring required by conditions **F13**(a) and CAM-2.

(ix) **For any vessel subject to 40 CFR 60 Subpart Kb, the permittee shall assess compliance with Subpart Kb by conducting any testing and monitoring required by §§60.113b and 60.116b, and by reviewing the records required by §§60.115b and 60.116b.**

(x) **For any unit subject to 40 CFR 60 Subpart KKK, the permittee shall assess compliance with Subpart KKK by reviewing the records required by §60.635.**

(xi) For any engine subject to 40 CFR 60 Subpart JJJJ, the permittee shall assess compliance with Subpart JJJJ by conducting any **applicable** testing and monitoring required by **§§60.4237, 60.4243, and 60.4244,** and by reviewing the records required by **§§60.4245 and 60.4246.**

(xii) **For any affected facility subject to 40 CFR 60 Subpart OOOO, the permittee shall assess compliance with Subpart OOOO by conducting any applicable testing and monitoring required by §§60.5413 through 60.5417 and by reviewing any applicable records required by §§60.5420, 60.5421, and 60.5423.**

(xiii) The permittee shall assess compliance with 40 CFR 63 Subpart HH by conducting any compliance demonstrations and monitoring required by §§63.772 and 63.773 and reviewing any records required by §§63.760 and 63.774.

(xiv) For **the reciprocating internal combustion** engines, the permittee shall assess compliance with 40 CFR 63 Subpart ZZZZ by conducting any **applicable** testing and monitoring required by **§§63.6610 through 63.6640** and by reviewing the records required by **§§63.6655 and 63.6665.**

(xv) The permittee shall assess compliance with 40 CFR 63 Subpart DDDDD by conducting any applicable testing and monitoring required by §§63.7505 through 63.7541 and by reviewing any records required by §§63.7555 and 63.7560.

(c) The compliance certification shall include:

(i) The permit condition or applicable requirement that is the basis of the certification;

(ii) The current compliance status;

(iii) Whether compliance was continuous or intermittent; and

(iv) The methods used for determining compliance.

(d) For any permit conditions or applicable requirements for which the source is not in compliance, the permittee shall submit with the compliance certification a proposed compliance plan and schedule for Division approval.

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(e) The compliance certification shall be submitted to the Division in accordance with condition G4 of this permit and to the Assistant Regional Administrator, Office of Enforcement, Compliance, and Environmental Justice (8ENF-T), U.S. EPA - Region VIII, 1595 Wynkoop Street, Denver, CO 80202-1129.

(f) Determinations of compliance or violations of this permit are not restricted to the monitoring requirements listed in paragraph (b) of this condition; other credible evidence may be used.

Compliance Schedule [WAQSR Ch 6, Sec 3(h)(iii)(C) and (D)]

(C2) The permittee shall continue to comply with the applicable requirements with which the permittee has certified that it is already in compliance.

(C3) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.

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GENERAL PERMIT CONDITIONS

Powers of the Administrator: [W.S. 35-11-110]

(G1) (a) The Administrator may require the owner or operator of any point source to complete plans and specifications for any application for a permit required by the Wyoming Environmental Quality Act or regulations made pursuant thereto and require the submission of such reports regarding actual or potential violations of the Wyoming Environmental Quality Act or regulations thereunder.

(b) The Administrator may require the owner or operator of any point source to establish and maintain records; make reports; install, use and maintain monitoring equipment or methods; sample emissions, or provide such other information as may be reasonably required and specified.

Permit Renewal and Expiration: [WAQSR Ch 6, Sec 3(c)(i)(C), (d)(ii), (d)(iv)(B), and (h)(i)(B)] [W.S. 35-11-206(f)]

(G2) This permit is issued for a fixed term of five years. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted at least six months prior to the date of permit expiration. If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit is not a violation of WAQSR Chapter 6, Section 3 until the Division takes final action on the renewal application. This protection shall cease to apply after a completeness determination if the applicant fails to submit by the deadline specified in writing by the Division any additional information identified as being needed to process the application.

Duty to Supplement: [WAQSR Ch 6, Sec 3(c)(iii)]

(G3) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after this permit is issued.

Submissions: [WAQSR Ch 6, Sec 3(c)(iv)] [W.S. 35-11-206(c)] **(Modified ***)**

(G4) Any application form, report, or certification submitted shall be certified as being true, accurate, and complete by a responsible official.

(a) Submissions to the Division including reports, certifications, and emission inventories required under this permit shall be submitted **either:**

(i) Electronically through the Division's IMPACT system (https://airimpact.wyo.gov); or

(ii) As separate, stand-alone documents sent to:

(A) Administrator, Air Quality Division
122 West 25th Street
Cheyenne, Wyoming 82002

(B) Unless otherwise noted elsewhere in this permit, a copy of each submission shall also be sent to the DEQ Air Quality Contact listed on page 3 of this permit.

(b) Submissions to EPA.

(i) Each certification required under condition C1 of this permit shall also be sent to:
Assistant Regional Administrator
Office of Enforcement, Compliance, and Environmental Justice (8ENF-T)
U.S. EPA - Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129.

(ii) All other required submissions to EPA shall be sent to:
Office of Partnerships and Regulatory Assistance
Air and Radiation Program (8P-AR)
U.S. EPA - Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

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Changes for Which No Permit Revision Is Required: [WAQSR Ch 6, Sec 3(d)(iii)]

(G5) The permittee may change operations without a permit revision provided that:

(a) The change is not a modification under any provision of title I of the Clean Air Act;

(b) The change has met the requirements of Chapter 6, Section 2 of the WAQSR and is not a modification under Chapter 5, Section 2 or Chapter 6, Section 4 of the WAQSR and the changes do not exceed the emissions allowed under the permit (whether expressed therein as a rate of emissions or in terms of total emissions); and

(c) The permittee provides EPA and the Division with written notification at least 14 days in advance of the proposed change. The permittee, EPA, and the Division shall attach such notice to their copy of the relevant permit. For each such change, the written notification required shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield, if one exists for this permit, shall not apply to any such change made.

Transfer of Ownership or Operation: [WAQSR Ch 6, Sec 3(d)(v)(A)(IV)]

(G6) A change in ownership or operational control of this facility is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Division.

Reopening for Cause: [WAQSR Ch 6, Sec 3(d)(vii)] [W.S. 35-11-206(f)(ii) and (iv)]

(G7) The Division will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

(a) Additional applicable requirements under the Clean Air Act or the WAQSR that become applicable to this source if the remaining permit term is three or more years. Such reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended.

(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit.

(c) The Division or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(d) The Division or EPA determines that the permit must be revised or revoked to assure compliance with applicable requirements.

Annual Fee Payment: [WAQSR Ch 6, Sec 3(f)(i), (ii), and (vi)] [W.S. 35-11-211]

(G8) The permittee shall, as a condition of continued operations, submit an annual fee to the Division as established in Chapter 6, Section 3 (f) of the WAQSR. The Division shall give written notice of the amount of fee to be assessed and the basis for such fee assessment annually. The assessed fee is due on receipt of the notice unless the fee assessment is appealed pursuant to W.S. 35-11-211(d). If any part of the fee assessment is not appealed it shall be paid to the Division on receipt of the written notice. Any remaining fee which may be due after completion of the appeal is immediately due and payable upon issuance of the Council's decision. Failure to pay fees owed the Division is a violation of Chapter 6, Section 3 (f) and W.S. 35-11-203 and may be cause for the revocation of this permit.

Annual Emissions Inventories: [WAQSR Ch 6, Sec 3(f)(v)(G)] **(Modified ***)**

(G9) The permittee shall submit an annual emission inventory for this facility to the Division for fee assessment and compliance determinations within 60 days following the end of the calendar year. The emissions inventory shall be in a format specified by the Division **and be submitted in accordance with condition G4(a) of this permit.**

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Severability Clause: [WAQSR Ch 6, Sec 3(h)(i)(E)]

(G10) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Compliance: [WAQSR Ch 6, Sec 3(h)(i)(F)(I) and (II)] [W.S. 35-11-203(b)]

(G11) The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act, Article 2 of the Wyoming Environmental Quality Act, and the WAQSR and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 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 this permit.

Permit Actions: [WAQSR Ch 6, Sec 3(h)(i)(F)(III)] [W.S. 35-11-206(f)]

(G12) This permit may be modified, revoked, reopened, and reissued, or terminated for cause. 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.

Property Rights: [WAQSR Ch 6, Sec 3(h)(i)(F)(IV)]

(G13) This permit does not convey any property rights of any sort, or any exclusive privilege.

Duty to Provide Information: [WAQSR Ch 6, Sec 3(h)(i)(F)(V)]

(G14) The permittee shall furnish to the Division, within a reasonable time, any information that the Division 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 Division copies of records required to be kept by the permit, including information claimed and shown to be confidential under W.S. 35-11-1101 (a) of the Wyoming Environmental Quality Act. Upon request by the Division, the permittee shall also furnish confidential information directly to EPA along with a claim of confidentiality.

Emissions Trading: [WAQSR Ch 6, Sec 3(h)(i)(H)]

(G15) No permit revision is required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

Inspection and Entry: [WAQSR Ch 6, Sec 3(h)(iii)(B)] [W.S. 35-11-206(c)]

(G16) Authorized representatives of the Division, upon presentation of credentials and other documents as may be required by law, shall be given permission to:

- (a) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) sample or monitor any substances or parameters at any location, during operating hours, for the purpose of assuring compliance with this permit or applicable requirements.

Excess Emissions Due to an Emergency: [WAQSR Ch 6, Sec 3(l)]

(G17) The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency, as defined in Ch 6, Sec 3(l)(i) of the WAQSR. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was, at the time, being properly operated;
- (c) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit.

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(d) The permittee submitted notice of the emergency to the Division within one working day of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

Diluting and Concealing Emissions: [WAQSR Ch 1, Sec 4]

(G18) No person shall cause or permit the installation or use of any device, contrivance, or operational schedule which, without resulting in reduction of the total amount of air contaminant released to the atmosphere, shall dilute or conceal an emission from a source. This condition shall not apply to the control of odors.

Unavoidable Equipment Malfunction: [WAQSR Ch 1, Sec 5]

(G19) (a) Any source believing that any emissions in excess of established regulation limits or standards resulted from an unavoidable equipment malfunction, shall notify the Division within 24 hours of the incident via telephone, electronic mail, fax, or other similar method.

(b) A detailed description of the circumstances of the incident as described in paragraph 5(a)(i)(A) Chapter 1, including a corrective program directed at preventing future such incidents, must be submitted within 14 days of the onset of the incident either through the Division's IMPACT system (https://airimpact.wyo.gov) or in writing to the DEQ Air Quality Contact listed on page 3 of this permit. The Administrator may extend this 14-day time period for cause.

(c) The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred.

Fugitive Dust: [WAQSR Ch 3, Sec 2(f)]

(G20) The permittee shall minimize fugitive dust in compliance with standards in Ch 3, Sec 2(f) of WAQSR for construction/demolition activities, handling and transportation of materials, and agricultural practices.

Carbon Monoxide: [WAQSR Ch 3, Sec 5]

(G21) The emission of carbon monoxide in stack gases from any stationary source shall be limited as may be necessary to prevent ambient standards from being exceeded.

Asbestos: [WAQSR Ch 3, Sec 8]

(G22) The permittee shall comply with emission standards for asbestos during abatement, demolition, renovation, manufacturing, spraying and fabricating activities.

(a) No owner or operator shall build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

(b) All owners and operators conducting an asbestos abatement project, including an abatement project on a residential building, shall be responsible for complying with Federal requirements and State standards for packaging, transportation, and delivery to an approved waste disposal facility as provided in paragraph (m) of Ch 3, Sec 8.

(c) The permittee shall follow State and Federal standards for any demolition and renovation activities conducted at this facility, including:

(i) A thorough inspection of the affected facility or part of the facility where the demolition or renovation activity will occur shall be conducted to determine the presence of asbestos, including Category I and Category II non-friable asbestos containing material. The results of the inspection will determine which notification and asbestos abatement procedures are applicable to the activity.

(ii) The owner or operator shall follow the appropriate notification requirements of Ch 3, Sec 8(i)(ii).

(iii) The owner or operator shall follow the appropriate procedures for asbestos emissions control, as specified in Chapter 3, Section 8(i)(iii).

(d) No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet applied and friable after drying. The provisions of this paragraph do not apply to spray-applied insulating materials regulated under paragraph (j) of Ch 3, Sec 8.

(e) The permittee shall comply with all other requirements of WAQSR Ch 3, Sec 8.

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Open Burning Restrictions: [WAQSR Ch 10, Sec 2]

(G23) The permittee conducting an open burn shall comply with all rules and regulations of the Wyoming Department of Environmental Quality, Division of Air Quality, and with the Wyoming Environmental Quality Act.

(a) No person shall burn prohibited materials using an open burning method, except as may be authorized by permit. ***"Prohibited materials"*** means substances including, but not limited to; natural or synthetic rubber products, including tires; waste petroleum products, such as oil or used oil filters; insulated wire; plastic products, including polyvinyl chloride ("PVC") pipe, tubing and connectors; tar, asphalt, asphalt shingles, or tar paper; railroad ties; wood, wood waste, or lumber that is painted or chemically treated; explosives or ammunition; batteries; hazardous waste products; asbestos or asbestos containing materials; or materials which cause dense smoke discharges, excluding refuse and flaring associated with oil and gas well testing, completions and well workovers.

(b) No person or organization shall conduct or cause or permit open burning for the disposal of trade wastes, for a salvage operation, for the destruction of fire hazards if so designated by a jurisdictional fire authority, or for firefighting training, except when it can be shown by a person or organization that such open burning is absolutely necessary and in the public interest. Any person or organization intending to engage in such open burning shall file a request to do so with the Division.

Sulfur Dioxide Emission Trading and Inventory Program [WAQSR Ch 14]

(G24) Any BART (Best Available Retrofit Technology) eligible facility, or facility which has actual emissions of SO_2 greater than 100 tpy in calendar year 2000 or any subsequent year, shall comply with the applicable requirements of WAQSR Ch 14, Sections 1 through 3, with the exceptions described in sections 2(c) and 3(a).

Stratospheric Ozone Protection Requirements: [40 CFR Part 82]

(G25) The permittee shall comply with all applicable Stratospheric Ozone Protection Requirements, including but not limited to:

(a) *Standards for Appliances* [40 CFR Part 82, Subpart F]
The permittee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F - Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

(i) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

(ii) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

(iii) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

(iv) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" is defined at §82.152).

(v) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.166.

(vi) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

(vii) The permittee shall comply with all other requirements of Subpart F.

(b) *Standards for Motor Vehicle Air Conditioners* [40 CFR Part 82, Subpart B]
If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

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STATE ONLY PERMIT CONDITIONS
(Modified *)**

The conditions listed in this section are State only requirements and are not federally enforceable.

Ambient Standards

(S1) The permittee shall operate the emission units described in this permit such that the following ambient standards are not exceeded:

POLLUTANT	STANDARD	CONDITION	WAQSR CH. 2, SEC.
PM_{10} particulate matter	50 micrograms per cubic meter	annual arithmetic mean	2 (a)
	150 micrograms per cubic meter	24-hr average concentration with not more than one exceedance per year	
$PM_{2.5}$ particulate matter	15 micrograms per cubic meter	annual arithmetic mean	2 (b)
	35 micrograms per cubic meter	98th percentile 24-hour average concentration	
Nitrogen dioxide	**53 parts per billion**	**annual average concentration**	3
	100 parts per billion	**three-year average of the annual 98th percentile of the daily maximum 1-hr average concentration**	
	0.053 parts per million	**annual arithmetic mean**	
Sulfur dioxide	**75 parts per billion**	**three-year average of the annual (99th percentile) of the daily max 1-hr average**	4
	0.5 parts per million	**3-hr blocks not to be exceeded more than once per calendar year**	
Carbon monoxide	10 milligrams per cubic meter	max 8-hr concentration with not more than one exceedance per year	5
	40 milligrams per cubic meter	max 1-hr concentration with not more than one exceedance per year	
Ozone	0.075 parts per million	**three-year average of the annual fourth-highest daily maximum 8-hr average concentration**	6
Hydrogen sulfide	70 micrograms per cubic meter	½ hour average not to be exceeded more than two times per year	7
	40 micrograms per cubic meter	½ hour average not to be exceeded more than two times in any five consecutive days	
Suspended sulfate	0.25 milligrams SO_3 per 100 square centimeters per day	maximum annual average	8
	0.50 milligrams SO_3 per 100 square centimeters per day	maximum 30-day value	
Lead and its compounds	0.15 micrograms per cubic meter	maximum arithmetic 3-month mean concentration for a 3-year period	10

***Exceedances of these standards shall be determined using the procedures in 40 CFR 50.**

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Hydrogen Sulfide: [WAQSR Ch 3, Sec 7]

(S2) Any exit process gas stream containing hydrogen sulfide which is discharged to the atmosphere from any source shall be vented, incinerated, flared or otherwise disposed of in such a manner that ambient sulfur dioxide and hydrogen sulfide standards are not exceeded.

Odors: [WAQSR Ch 2, Sec 11]

(S3) (a) The ambient air standard for odors from any source shall be limited to an odor emission at the property line which is undetectable at seven dilutions with odor free air as determined by a scentometer as manufactured by the Barnebey-Cheney Company or any other instrument, device, or technique designated by the Division as producing equivalent results. The occurrence of odors shall be measured so that at least two measurements can be made within a period of one hour, these determinations being separated by at least 15 minutes.

(b) Odor producing materials shall be stored, transported, and handled in a manner that odors produced from such materials are confined and that accumulation of such materials resulting from spillage or other escape is prevented.

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SUMMARY OF SOURCE EMISSION LIMITS AND REQUIREMENTS

Source ID#: **F022D-E5, -E7, & -E17** Source Description: **Clark HRA-8 Compressor Engines (3) (Modified ***)**

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	40 percent opacity [**F3**]	WAQSR Ch 3, Sec 2	Testing if required [**F9**]	Verification of natural gas firing [**F12**]	Record the results of any additional testing [**F17**]	**Notifications** [**F20**] Report type of fuel fired [**F22**] Report excess emissions and permit deviations [**F24**]
NO_X	33.4 lb/hr, 146.3 TPY [**F4**]	**WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)**	Quarterly NO_X testing [**F10**]	Test per F10 [**F14**]	Record testing [**F17**]	**Notifications** [**F20**] Report testing [**F21**] Report excess emissions and permit deviations [**F24**]
CO	8.6 lb/hr, 37.5 TPY [**F4**]	**WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)**	Test once every five years [**F10**]	Test per F10 [**F14**]	Record testing [**F17**]	**Notifications** [**F20**] Report testing [**F21**] Report excess emissions and permit deviations [**F24**]
HAPs	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A and ZZZZ**					

Source ID#: **F022D-E10, -E11, -E12, -E13, -E14, -E19, & -E20** Source Description: **Clark HRA-6 Compressor Engines (7) (Modified ***)**

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	40 percent opacity [**F3**]	WAQSR Ch 3, Sec 2	Testing if required [**F9**]	Verification of natural gas firing [**F12**]	Record the results of any additional testing [**F17**]	**Notifications** [**F20**] Report type of fuel fired [**F22**] Report excess emissions and permit deviations [**F24**]
NO_X	25.1 lb/hr, 109.8 TPY [**F4**]	**WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)**	Quarterly NO_X testing [**F10**]	Test per **F10** [**F14**]	Record testing [**F17**]	**Notifications** [**F20**] Report testing [**F21**] Report excess emissions and permit deviations [**F24**]
CO	6.4 lb/hr, 28.2 TPY [**F4**]	**WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)**	Test once every five years [**F10**]	Test per **F10** [**F14**]	Record testing [**F17**]	**Notifications** [**F20**] Report testing [**F21**] Report excess emissions and permit deviations [**F24**]
HAPs	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A and ZZZZ**					

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

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Source ID#: **F022D-E24, -E25, -E26, -E27, -E28, -E29** Source Description: **Waukesha 5794GSI Compressor Engines (6) (Modified ***)**

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity [F3]	WAQSR Ch 3, Sec 2	Testing if required [F9]	Verification of natural gas firing [F12]	Record the results of any additional testing [F17]	Notifications [F20] Report type of fuel fired [F22] Report excess emissions and permit deviations [F24]
NO_X	0.7 g/hp-hr, 2.1 lb/hr, 9.3 TPY [F4]	WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)	Annual testing [F10]	Annual test [F10] Catalyst monitoring and maintenance [F13, CAM-1 through -4]	Record testing and monitoring results [F17] CAM records [F18]	Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]
CO	2.0 g/hp-hr, 6.1 lb/hr, 26.7 TPY [F4]	WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)	Annual testing [F10]	Annual test [F10] Catalyst monitoring and maintenance per Subpart JJJJ [F13]	Record testing and monitoring results [F17]	Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]
VOC	0.4 g/hp-hr, 1.2 lb/hr, 5.3 TPY [F4]	WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)	Annual testing [F10]	Annual test [F10] Catalyst monitoring and maintenance [F13]	Record testing and monitoring results [F17]	Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]
Formal-dehyde	Reduce by 76% OR limit to 350 ppbvd [F4]	WAQSR Ch 6, Sec 2 Permit MD-14267A (corrected)	Periodic test per 40 CFR 63 Subpart ZZZZ [F10]	Periodic test per 40 CFR 63 Subpart ZZZZ [F10] Catalyst monitoring and maintenance [F13]	Record testing and monitoring results [F17]	Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]
Additional NO_X, CO, and VOC	WAQSR Ch 5, Sec 2 and 40 CFR 60 Subparts A & JJJJ					
HAPs	WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A & ZZZZ					

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

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Source ID#: **E01, E02** Source Description: **Caterpillar G3512B Compressor Engines (2) (Modified ***)**

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	**20 percent opacity [F3]**	**WAQSR Ch 3, Sec 2**	**Testing if required [F9]**	**Verification of natural gas firing [F12]**	**Record the results of any additional testing [F17]**	**Notifications [F20] Report type of fuel fired [F22] Report excess emissions and permit deviations [F24]**
NO_X	**0.5 g/hp-hr, 1.1 lb/hr, 5.0 TPY [F4]**	**WAQSR Ch 6, Sec 2 Permit MD-16631**	**Annual testing [F10]**	**Annual test [F10]**	**Record testing results [F17]**	**Notifications [F20] 45 days: report test results [F21] Report excess emissions and permit deviations [F24]**
CO	**0.25 g/hp-hr, 0.6 lb/hr, 2.5 TPY, 40 CFR 63 §63.6600 [F4]**	**WAQSR Ch 6, Sec 2 Permit MD-16631**	**Periodic test per 40 CFR 63 Subpart ZZZZ [F10]**	**Periodic test per 40 CFR 63 Subpart ZZZZ [F10] Catalyst monitoring and maintenance [F13]**	**Record testing and monitoring results [F17]**	**Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]**
VOC	**0.49 g/hp-hr, 1.1 lb/hr, 4.9 TPY [F4]**	**WAQSR Ch 6, Sec 2 Permit MD-16631**	**Annual testing [F10]**	**Annual testing [F10] Catalyst monitoring and maintenance [F13]**	**Record testing and monitoring results [F17]**	**Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]**
Formal-dehyde	**0.16 lb/hr, 0.70 TPY, 40 CFR 63 §63.6600 [F4]**	**WAQSR Ch 6, Sec 2 Permit MD-16631**	**Periodic test per 40 CFR 63 Subpart ZZZZ [F10]**	**Periodic test per 40 CFR 63 Subpart ZZZZ [F10] Catalyst monitoring and maintenance [F13]**	**Record testing and monitoring results [F17]**	**Notifications [F20] 45 days: report test results [F21] Semiannual: report monitoring [F22] Report excess emissions and permit deviations [F24]**
Additional NO_X, CO, and VOC	**As applicable, WAQSR Ch 5, Sec 2 and 40 CFR 60 Subparts A & JJJJ**					
HAPs	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A & ZZZZ**					

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

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Source ID#: **F022D-E23** Source Description: **John Deere 375DLQ Air Compressor Engine (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	30 percent opacity [**F3**]	WAQSR Ch 3, Sec 2	Testing if required [**F9**]	None	Record the results of any additional testing [**F17**]	Report excess emissions and permit deviations [**F24**]
HAPS	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A and ZZZZ**					

Source ID#: **F022D-FL1 & -FL4** Source Description: **Fugitive Emissions- Equipment Leaks (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
VOC	**As applicable, WAQSR Ch 5, Sec 2 and 40 CFR 60 Subparts A and KKK or OOOO**					

Source ID#: **F022D-H1 & -H3** Source Description: **Hot Oil Heaters (2) (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	40 percent opacity [**F3**]	WAQSR Ch 3, Sec 2	Testing if required [**F9**]	Verification of natural gas firing [**F12**]	Record the results of any additional testing [**F17**]	Report type of fuel fired [**F22**] Report excess emissions and permit deviations [**F24**]
NO_X	0.23 lb/MMBtu heat input [**F5**]	WAQSR Ch 3, Sec 3	Test once every two years [**F11**]	Test per **F11** [**F15**]	Record testing [**F17**]	**Notifications [F20]** Report testing [**F21**] Report excess emissions and permit deviations [**F24**]
HAPs	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A & DDDDD**					

Source ID#: **F022D-H5 & -H6** Source Description: **Line Heaters (2) (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity [**F3**]	WAQSR Ch 3, Sec 2	Testing if required [**F9**]	Verification of natural gas firing [**F12**]	Record the results of any additional testing [**F17**]	Report type of fuel fired [**F22**] Report excess emissions and permit deviations [**F24**]
NO_X	0.20 lb/MMBtu heat input [**F5**]	WAQSR Ch 3, Sec 3	Testing if required [**F9**]	None	Record the results of any additional testing [**F17**]	Report excess emissions and permit deviations [**F24**]
HAPs	**WAQSR Ch 5, Sec 3 and 40 CFR 63 Subparts A & DDDDD**					

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

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Source ID#: **F022D-TK-101** Source Description: **10,000 bbl Storage Tank (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
VOC	Operate VRU and flare during all periods of active operation [**F8**]	WAQSR Ch 6, Sec 2 Permits MD-1136 & **MD-14267A (corrected)**	Testing if required [**F9**]	Monitor availability of VRU and flare during active operation [**F16**]	Record availability of VRU and flare during active operation [**F19**]	Report VRU and flare availability [**F22**] Report excess emissions and permit deviations [**F24**]
	WAQSR Ch 5, Sec 2 and 40 CFR 60 Subparts A and Kb					

Source ID#: **F022D-Flare** Source Description: **Truck Loading/VRU Back Up Flare (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	No visible emissions [**F3**]	WAQSR Ch 6, Sec 2 Permit **MD-14267A (corrected)**	Testing if required [**F9**]	Daily visual observations [**F12**]	Record visual observations [**F17**]	Report visual observations [**F22**] Report excess emissions and permit deviations [**F24**]
VOC	Operational requirements [**F8**]	WAQSR Ch 6, Sec 2 Permit **MD-14267A (corrected)**	Testing if required [**F9**]	Monitor availability of flare during active operation; monitor pilot flame [**F16**]	Record availability of flare during active operation and pilot flame monitoring [**F19**]	Report flare availability and pilot flame status [**F22**] Report excess emissions and permit deviations [**F24**]
	WAQSR Ch 5, Sec 2 and 40 CFR 60 Subpart KKK					

Source ID#: **F022D-VRU** Source Description: **VRU (Modified ***)**

Pollutant	Emissions Limit/ Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
VOC	Operate VRU during all periods of active tank operation [**F8**]	WAQSR Ch 6, Sec 2 Permits MD-1136	Testing if required [**F9**]	Monitor availability of VRU during active tank operation [**F16**]	Record availability of VRU during active tank operation [**F19**]	Report VRU availability [**F22**] Report excess emissions and permit deviations [**F24**]

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

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ABBREVIATIONS
(Modified *)**

ACFM	**Actual cubic feet per minute**
AFRC	**Air-fuel ratio controls**
AQD	Air Quality Division
BACT	**Best available control technology (see Definitions)**
Btu	British Thermal Unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2e	**Carbon dioxide equivalent**
DEQ	Wyoming Department of Environmental Quality
EPA	United States Environmental Protection Agency (see Definitions)
ESP	**Electrostatic Precipitator**
g/hp-hr	Gram(s) per horsepower hour
gal	**Gallon(s)**
gr	Grain(s)
H_2S	Hydrogen sulfide
HAP(s)	Hazardous air pollutant(s)
hp	Horsepower
hr	Hour(s)
lb	Pound(s)
M	Thousand
MACT	Maximum available control technology (see Definitions)
mfr	Manufacturer
mg	Milligram(s)
MM	Million
MVACs	Motor vehicle air conditioners
NMHC(s)	**Non-methane hydrocarbon(s)**
NO_X	Oxides of nitrogen
NSCR	**Non-selective catalytic reduction**
O_2	Oxygen
PM	Particulate matter
PM_{10}	Particulate matter less than or equal to a nominal diameter of 10 micrometers
ppbvd	**Parts per billion (by volume, dry basis)**
ppmv	Parts per million (by volume)
ppmvd	**Parts per million (by volume, dry basis)**
ppmw	**Parts per million (by weight)**
QIP	Quality Improvement Plan
RICE	Reciprocating Internal Combustion Engine
SCF	Standard cubic foot (feet)
SCFD	Standard cubic foot (feet) per day
SCM	Standard cubic meter(s)
SI	Spark Ignition
SIC	Standard Industrial Classification
SO_2	Sulfur dioxide
SO_X	Oxides of sulfur
TBD	To be determined
TPD	**Ton(s) per day (1 ton = 2000 pounds, unless otherwise specified)**
TPH	**Ton(s) per hour (1 ton = 2000 pounds, unless otherwise specified)**
TPY	Tons per year **(1 ton = 2000 pounds, unless otherwise specified)**
U.S.C.	United States Code
µg	Microgram(s)
VOC(s)	Volatile organic compound(s)
W.S.	Wyoming Statute
WAQSR	Wyoming Air Quality Standards & Regulations (see Definitions)

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DEFINITIONS

"Act" means the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.*

"Administrator" means Administrator of the Air Quality Division, Wyoming Department of Environmental Quality.

"Applicable requirement" means all of the following as they apply to emissions units at a source subject to Chapter 6, Section 3 of the WAQSR (including requirements with future effective compliance dates that have been promulgated or approved by the EPA or the State through rulemaking at the time of issuance of the operating permit):

(a) Any standard or other requirement provided for in the Wyoming implementation plan approved or promulgated by EPA under title I of the Act that implements the relevant requirements of the Act, including any revisions to the plan promulgated in 40 CFR Part 52;

(b) Any standards or requirements in the WAQSR which are not a part of the approved Wyoming implementation plan and are not federally enforceable;

(c) Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D of the Act and including Chapter 5, Section 2 and Chapter 6, Sections 2 and 4 of the WAQSR;

(d) Any standard or other requirement promulgated under Section 111 of the Act, including Section 111(d) and Chapter 5, Section 2 of the WAQSR;

(e) Any standard or other requirement under Section 112 of the Act, including any requirement concerning accident prevention under Section 112(r)(7) of the Act and including any regulations promulgated by EPA and the State pursuant to Section 112 of the Act;

(f) Any standard or other requirement of the acid rain program under title IV of the Act or the regulations promulgated thereunder;

(g) Any requirements established pursuant to Section 504(b) or Section 114(a)(3) of the Act concerning enhanced monitoring and compliance certifications;

(h) Any standard or other requirement governing solid waste incineration, under Section 129 of the Act;

(i) Any standard or other requirement for consumer and commercial products, under Section 183(e) of the Act (having to do with the release of volatile organic compounds under ozone control requirements);

(j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under title VI of the Act, unless the EPA has determined that such requirements need not be contained in a title V permit;

(k) Any national ambient air quality standard or increment or visibility requirement under part C of title I of the Act, but only as it would apply to temporary sources permitted pursuant to Section 504(e) of the Act; and

(l) Any state ambient air quality standard or increment or visibility requirement of the WAQSR.

(m) Nothing under paragraphs (A) through (L) above shall be construed as affecting the allowance program and Phase II compliance schedule under the acid rain provision of Title IV of the Act.

"BACT" or "Best available control technology" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the WAQSR or regulation under the Federal Clean Air Act, which would be emitted from or which results for any proposed major emitting facility or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application or production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, he may instead prescribe a design, equipment, work practice or operational standard or combination thereof to satisfy the requirement of Best Available Control Technology. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results. Application of BACT shall not result in emissions in excess of those allowed under Chapter 5, Section 2 of the WAQSR and any other new source performance standard or national emission standards for hazardous air pollutants promulgated by EPA but not yet adopted by the state.

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"Department" means the Wyoming Department of Environmental Quality or its Director.

"Director" means the Director of the Wyoming Department of Environmental Quality.

"Division" means the Air Quality Division of the Wyoming Department of Environmental Quality or its Administrator.

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

"EPA" means the Administrator of the U.S. Environmental Protection Agency or the Administrator's designee.

"Fuel-burning equipment" means any furnace, boiler apparatus, stack, or appurtenances thereto used in the process of burning fuel or other combustible material for the purpose of producing heat or power by indirect heat transfer.

"Fugitive emissions" means those emissions which could not reasonably pass through a stack chimney, vent, or other functionally equivalent opening.

"Insignificant activities" means those activities which are incidental to the facility's primary business activity and which result in emissions of less than one ton per year of a regulated pollutant not included in the Section 112 (b) list of hazardous air pollutants or emissions less than 1000 pounds per year of a pollutant regulated pursuant to listing under Section 112 (b) of the Act provided, however, such emission levels of hazardous air pollutants do not exceed exemptions based on insignificant emission levels established by EPA through rulemaking for modification under Section 112 (g) of the Act.

"MACT" or "Maximum achievable control technology" means the maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory that shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than:

(a) the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emission information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or

(b) the average emission limitation achieved by the best performing five sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory for categories or subcategories with fewer than 30 sources.

"Modification" means any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant (to which any state standards applies) emitted by such facility or which results in the emission of any such air pollutant not previously emitted.

"Permittee" means the person or entity to whom a Chapter 6, Section 3 permit is issued.

"Potential to emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation is enforceable by EPA and the Division. This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in title IV of the Act or the regulations promulgated thereunder.

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"Regulated air pollutant" means the following:

(a) Nitrogen oxides (NO_X) or any volatile organic compound;

(b) Any pollutant for which a national ambient air quality standard has been promulgated;

(c) Any pollutant that is subject to any standard established in Chapter 5, Section 2 of the WAQSR or Section 111 of the Act;

(d) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act; or

(e) Any pollutant subject to a standard promulgated under Section 112 or other requirements established under Section 112 of the Act, including Sections 112(g), (j), and (r) of the Act, including the following:

(i) Any pollutant subject to requirements under Section 112(j) of the Act. If EPA fails to promulgate a standard by the date established pursuant to Section 112(e) of the Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to Section 112(e) of the Act; and

(ii) Any pollutant for which the requirements of Section 112(g)(2) of the Act have been met, but only with respect to the individual source subject to Section 112(g)(2) requirement.

(f) Pollutants regulated solely under Section 112(r) of the Act are to be regulated only with respect to the requirements of Section 112(r) for permits issued under this Chapter 6, Section 3 of the WAQSR.

"Renewal" means the process by which a permit is reissued at the end of its term.

"Responsible official" means one of the following:

(a) For a corporation:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) A duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(A) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(B) the delegation of authority to such representative is approved in advance by the Division;

(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(c) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or

(d) For affected sources:

(i) The designated representative or alternate designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated thereunder are concerned; and

(ii) The designated representative, alternate designated representative, or responsible official under Chapter 6, Section 3 (b)(xxvi) of the WAQSR for all other purposes under this section.

"WAQSR" means the Wyoming Air Quality Standards and Regulations promulgated under the Wyoming Environmental Quality Act, W.S. §35-11-101, *et seq.*

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APPENDIX A

Reserved

(Modified *)**

APPENDIX B

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

(Modified *)**

TALLGRASS ENERGY PARTNERS

TALLGRASS MIDSTREAM, LLC

Douglas Gas Plant, Converse County, WY; WAQSR Operating Permit 3-2-039

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN
Rev: Initial, April 2014
RICH BURN NATURAL GAS FIRED COMPRESSOR ENGINES EQUIPPED WITH CATALYTIC CONVERTERS FOR CONTROL OF NOx

I. Background

A. Emissions Units

Description:	4 Stroke Rich burn natural gas compressor engines (6), Waukesha 5794GSI, 1,038 hp
Identification:	Units E24, E25, E26, E27, E28, E29
Facility:	Douglas Gas Plant, Converse County, WY

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	WDEQ engine BACT, Permit MD-14267A (Corrected)
CAM Emission Limits:	NOx: 0.7 g/hp-hr, 2.1 lb/hr, 9.3 tpy

C. Control Technology, Capture System, Bypass, PTE

Controls:	Non-selective catalytic reduction
Capture System:	N/A
Bypass:	None
PTE before controls:	NOx: 193.2 tpy
PTE after controls:	NOx: 9.3 tpy

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1.

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JUSTIFICATION

I. Background

The monitoring approach outlined here applies to the three-way non-selective reduction catalyst system used on the natural gas fired compressor engines. The catalyst system is a passive unit and does not have mechanical components. The reduction reaction does not take place properly if the temperature of the engine exhaust gas into the catalyst system is too low or too high. A significant change in pressure drop across the catalyst may indicate damage or fouling to the catalyst.

II. Rationale for Selection of Performance Indicators

Temperature into the catalyst unit is measured because temperature excursions can indicate problems with engine operation that can prevent the chemical reaction from taking place in the catalyst bed. Too low of an exhaust gas temperature reduces the activity of the intended chemical/catalyst reaction. Too high of an exhaust gas temperature can indicate engine problems which can damage the catalyst unit. Continuous monitoring of inlet gas temperatures to the catalyst will help assure proper operation of the catalyst. Compliance with the temperature indicator range is demonstrated from continuous records of 4-hr rolling averages of the 15-minute inlet catalyst temperature readings.

Pressure differential across the catalyst may indicate if the catalyst unit is damaged, resulting in channeling or other problems, or if there is fouling/plugging in the catalyst. Both conditions would result in reduced catalyst performance.

Implementation of the Inspection/Preventative Maintenance (IPM) Plan related to the operation of the engines and catalyst system provides assurance that they are in good repair and operating properly. Items on the IPM checklist include checking engine operation for proper operation, testing of the over-temperature system, checking the temperature of the exhaust (the thermocouples are stable instruments and are to be validated annually), and inspecting the fuel/air ratio controller and oxygen sensors.

NOx emissions testing (frequency specified by Part 60 Subpart JJJJ) will demonstrate continued compliance with emission limits and the possible link between the temperature indicator range, pressure differential, implementation of the IPM plan, and proper operation of the engines and catalyst.

III. Rationale for Selection of Indicator Ranges

An exhaust gas temperature range of 750 F to 1250 F has been as required for rich burn, catalytically controlled engines subject to the reciprocating internal combustion engine (RICE) NESHAP. A pressure differential change of more than 2 inches of water from a baseline measured during the initial performance test is also consistent with operating limitations in the RICE NESHAP. The IPM checklist was developed based on manufacturer's recommendations and the company's operating experience with similar units.

INSPECTION AND PREVENTATIVE MAINTENANCE PLAN

The following is an Inspection and Preventive Maintenance plan (IPM) for the natural gas fired compressor engines E24-E29. The plan is designed to ensure optimum operation of the non-selective catalytic reduction (NSCR) converters, avoid situations that could cause converter damage, and identify problems in a timely manner.

I. Engine Operations

Proper engine operation is critical to performance of the NSCR converter. If the engine misfires, it produces high catalyst temperatures because the unburned air/fuel mixture burns when it contacts the catalyst. Several misfiring cylinders can produce enough heat to cause permanent damage to the catalyst.

Preventative maintenance: Each engine will be checked for proper operation at least weekly.

II. Over-temperature System

Each converter is equipped with an over-temperature system which protects the catalyst from excessive temperature conditions caused by misfires.

Preventative maintenance: The catalyst over-temperature devices will be tested annually to ensure they are working.

III. Exhaust Temperature

For efficient converter operations, the exhaust gas must be maintained between 750 and 1250 °F at all times.

Preventative maintenance: The exhaust temperature will be monitored every 15 minutes.

IV. Air/Fuel Ratio Controller

The air/fuel ratio controllers are used in conjunction with catalytic converters to control emissions. The air/fuel ratio controllers are set to control emissions at the allowable rates.

Preventative maintenance: The Waukesha Engine System Manager (ESM; the engine control module) monitors and alarms when the limits of the controller are exceeded. Alarms will be investigated and issues resolved in a timely fashion. Oxygen sensors in the exhaust manifold will be replaced every 2,000 - 2,500 hours of operation, consistent with the manufacturer's recommendations.

V. Performance Monitoring

To track performance of the converters and detect early signs of converter problems, emissions will be monitored in the exhaust stream.

Preventative maintenance: Testing will be conducted for NOx, CO and VOCs per Part 60 Subpart JJJJ.

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Douglas Gas Plant - Permit 3-2-039

TABLE 1 - CAM PLAN

	Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
I. Indicator	Exhaust gas catalyst inlet temperature	Pressure differential across the catalyst.	NOx measurement.	Inspection/Preventative Maintenance (IPM) in accordance with Plan.
Measurement Approach	Exhaust gas temperature is monitored continuously using a thermocouple. Data are reduced to 4-hour rolling averages and recorded every 15 minutes. per 63.6625(b)(1)	Pressure differential across the catalyst (dP) is monitored and recorded once monthly.	NOx is measured per performance testing requirements in Part 40 Supbart JJJJ.	Monthly IPM and recording in accordance with IPM Plan. Engine operating parameters are logged each week. Maintenance performed as needed.
II. Indicator Range	4-hr rolling average range: 750°F - 1250°F	Within +/- 2" water of the baseline dP, measured during the performance test. If the catalyst is changed, the dP baseline must be reestablished.	NOx above 0.7 g/hp-hr	N/A
III. Performance Criteria				
A. Data Representativeness	The monitoring system design, data collection and quality assurance and quality control is specified in the RICE MACT continuous parameter system monitoring plan (CPMS plan).	dP is measured at the inlet and outlet of the catalyst. The gauge has a minimum accuracy of 0.30 inches of water.	Gases are measured at the exhaust of the catalyst when the unit is running within 10 percent of 100 percent peak (or the highest achievable) load	IPM is performed on the engine and catalyst system (including air to fuel ratio controller, temperature thermocouples, oxygen sensors, and over-temperature protection device).
B. QA/QC Practices and Criteria	The monitoring system design, data collection and quality assurance and quality control is specified in the RICE MACT continuous parameter system monitoring plan (CPMS plan).	The pressure gauge is calibrated per manufacturer's specifications, annually.	As specified for Performance Testing in Part 40 Subpart JJJJ, §60.4244 and Table 2.	Qualified personnel perform IPM.
D. Monitoring Frequency	Temperature is monitored continuously.	Pressure differential across the catalyst (dP) is monitored and recorded once monthly.	Every 8,760 hours or 3 years, whichever comes first. (§60.4243(2)(iii)).	Weekly, quarterly and annual according to IPM Plan.
Data Collection Procedures	Temperature data will be recorded every 15 minutes and reduced to 4-hour rolling averages. No observations required for days when the engine is not operated.	Pressure data will be recorded once per month. If engine is not operated in a month, the dP reading must be taken immediately upon the next startup of the engine is started up.	As specified for Performance Testing in Part 40 Subpart JJJJ, §60.4244 and Table 2.	Records are maintained to document IPM and any maintenance performed.
Averaging period	None.	None.	Average of 3 1-hr runs.	NA

Engine ID	Startup Date	Initial Performance Test Date	dP measured during test (" water)
E24/301	9/9/2013	11/12/2013	2.75
E25/302	9/15/2013	11/13/2013	2.26
E26/303	10/4/2013	11/19/2013	2.26
E27/304	10/17/2013	11/21/2013	2.64
E28/305	10/25/2013	11/14/2013	2.56
E29/306	10/30/2013	1/8/2014	2.1

APPENDICES C through J
Reserved
(Modified *)**