

Southern Ute Indian Tribe

Air Quality Program



Title V Operating Permit

**Southern Ute Indian Tribe
Environmental Programs Division
Air Quality Program
71 Mike Frost Way
Ignacio, Colorado 81137**



**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE**

In accordance with the provisions of Title V of the Clean Air Act (42 U.S.C. 7661-7661f) and Part 1, Article II of the Southern Ute Indian Tribe/State of Colorado Environmental Commission's Reservation Air Code (RAC) and applicable rules and regulations,

**Red Cedar Gathering Company
Arkansas Loop and Simpson Treating Plants**

is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the conditions listed in this permit.

This source is authorized to operate at the following location:

**Southern Ute Indian Reservation
Section 1, T32N R9W
La Plata County, Colorado**

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable by the Tribe and citizens under the Clean Air Act.

Daniel Powers, Air Quality Program Manager
Environmental Programs Division
Southern Ute Indian Tribe

**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE
Red Cedar Gathering Company
Arkansas Loop and Simpson Treating Plants**

SUIT Account Identification Code: 2-019

Permit Number: V-SUIT-0010-2019.00

[Replaces Permit No.: V-SUIT-0010-2015.00]

Issue Date: **INSERT**

Effective Date: **INSERT**

Expiration Date: **INSERT**

The SUIT account identification code and permit number cited above should be referenced in future correspondence regarding this facility.

Permit Issuance History

DATE	TYPE OF ACTION	DESCRIPTION OF ACTION	PERMIT NUMBER
March 2000	Permit Issued	Initial Part 71 Permit Issued	V-SU-0010-00.00
April 17, 2007	Permit Issued	First Part 71 Renewal Permit Issued	V-SU-0010-05.00
August 17, 2007	Permit Revision	Administrative Permit Revision <ul style="list-style-type: none">• Updated contact phone numbers• Revised Alternative Operating Scenarios and Off Permit Changes sections for clarification• Updated permit revision history	V-SU-0010-05.01
February 5, 2008	Permit Revision	Administrative Permit Revision <ul style="list-style-type: none">• Updated mailing address for submittal if annual fee payments• Updated serial numbers• Removed non-enforceable facility information (i.e. R.O., Facility Contact)• Updated permit revision history	V-SU-0010-05.02
July 3, 2008	Permit Revision	Administrative Permit Revision <ul style="list-style-type: none">• Updated plant mail address• Revised 40 CFR Part 63, Subpart ZZZZ for recently promulgated rules• Revised Alternative Operating Scenarios and Off Permit Changes sections for clarification• Updated permit revision section	V-SU-0010-05.03
October 6, 2010	Permit Revision	Significant Permit Revision <ul style="list-style-type: none">• Revised facility name• Added new emission units• Added new applicable requirements (40 CFR Part 60, Subpart Dc)• Added new applicable requirements for	V-SU-0010-05.04

DATE	TYPE OF ACTION	DESCRIPTION OF ACTION	PERMIT NUMBER
		engine (40 CFR Part 60, Subpart JJJJ; 40 CFR Part 63, Subpart ZZZZ) • Added new section with permittee requested emission limits, monitoring, recordkeeping and reporting requirements • Added 40 CFR Part 63, Subpart HH recordkeeping requirements • Revised and added Facility-Wide Requirements	
November 17, 2011	Permit Revision	Minor Permit Revision • Revised facility name • Updated engine serial number • Added approved alternative test methods to 40 CFR Part 60, Appendix A	V-SU-00010-2005.05
June 5, 2014	Permit Issued	Synthetic Minor Permit Issued • Removal and installation of equipment	SMNSR-SU-000010-2011.001
August 28, 2014	Permit Issued	Minor Permit Issued • Addition of two engines	MNSR-SU-000010-2014.002
January 6, 2015	Permit Issued	Initial Part 70 Permit Issued • Replaces EPA-issued permit: V-SU-00010-2005.05	V-SUIT-0010-2015.00
August 28, 2018	Permit Issued	Synthetic Minor Permit Issued • Incorporation of legally and practically enforceable emission limitations for benzene	SMNSR-SU-0000010-2017.003
May 26, 2020	Permit Revision	Synthetic Minor Permit Revision • Revised operational and monitoring requirements.	SMNSR-SU-000010-2019.004
XXXX	Permit Issued	First Part 70 Renewal Permit Issued • Replaces SUIT-issued permit: V-SUIT-0010-2015.00	V-SUIT-0010-2019.00

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Abbreviations and Acronyms

4SLB	Four-Stroke Lean-Burn
4SRB	Four-Stroke Rich-Burn
AFS	Air Facility System database
AQP	Southern Ute Indian Tribe's Air Quality Program
bbl	Barrels
BACT	Best Available Control Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System (includes COMS, CEMS and diluent monitoring)
COMS	Continuous Opacity Monitoring System
CO	Carbon monoxide
CO ₂	Carbon dioxide
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
EPA	United States Environmental Protection Agency
gal	Gallon
GPM	Gallons per minute
H ₂ S	Hydrogen sulfide
HAP	Hazardous Air Pollutant
hr	Hour
ID	Identification Number
kg	Kilogram
lbs	Pounds
MACT	Maximum Achievable Control Technology
Mg	Megagram
MMBtu	Million British Thermal Units
MMSCFD	Million standard cubic feet per day
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMHC	Non-methane hydrocarbons
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
pH	Negative logarithm of effective hydrogen ion concentration (acidity)
PM	Particulate Matter
PM ₁₀	Particulate matter less than 10 microns in diameter
ppbvd	Parts per billion by volume, dry
ppm	Parts per million
ppmvd	Parts per million by volume, dry
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
psi	Pounds per square inch
psia	Pounds per square inch absolute
RAC	Southern Ute Indian Tribe/State of Colorado Environmental Commission's Reservation Air Code
RICE	Reciprocating Internal Combustion Engine
RMP	Risk Management Plan
scf	Standard cubic feet
scfm	Standard cubic feet per minute
SI	Spark Ignition
SO ₂	Sulfur Dioxide
SUIT	Southern Ute Indian Tribe
tpy	Ton(s) Per Year

Tribe
US EPA
VOC

Southern Ute Indian Tribe
United States Environmental Protection Agency
Volatile Organic Compounds

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Section I – Source Information and Emission Unit Identification

1. Source Information

Owner Name:	Red Cedar Gathering Company
Facility Name:	Arkansas Loop and Simpson Treating Plants
Facility Location:	Section 1, T32N R9W
Latitude:	37.053195° N
Longitude:	-107.785518° W
State:	Colorado
County:	La Plata
Responsible Official:	President and Chief Operating Officer
SIC Code:	4922
ICIS Identification Number:	110000507050
EPA Facility Registry ID:	08-067-U0027
Other Clean Air Act Permits	Synthetic Minor Permit: SMNSR-SU-000010-2011.00 Minor NSR Permit: MNSR-SU-000010-2014.002 Synthetic Minor Permit: SMNSR-SU-000010-2019.004

Process Description:

The Arkansas Loop and Simpson Treating Plants, owned and operated by Red Cedar Gathering Company, are located in southwestern Colorado within the exterior boundaries of the Southern Ute Indian Reservation. These treating plants are considered a production field facility prior to the point of custody transfer. Upstream of the facilities there are production (coal-bed methane) wells and compressor stations connected to a gathering pipeline system to the inlet of the facilities. The Arkansas Loop and Simpson Treating Plants provide natural gas field compression, CO₂ removal, and dehydration to remove entrained water vapor from the gas stream. The facilities are comprised of 6 reciprocating internal combustion engines (RICE) for gas compression, 5 RICE for electric generation, 3 amine plants for CO₂ removal, 6 TEG dehydration units for gas dehydration, and 3 heaters associated with the amine plants. The facilities have several other heaters, tanks, and miscellaneous equipment that qualify as insignificant emission units.

The process at Arkansas Loop begins with compressing gas wet natural gas to high pressure (approximately 900 - 1000 psig) from the field pipeline and compressor stations. This gas is then mixed with other gas (already at high pressure) and treated through the amine trains

(Amine 1 & 2). The gas is then sent through 4 glycol dehydrators to remove entrained water vapor from the gas stream. The treated gas is then mixed with untreated gas so that the gas leaving the plant is less than 2% CO₂.

The process at Simpson does not include compression of the natural gas. The gas comes into the plant at high pressure and is treated to remove CO₂ and then water, similar to Arkansas Loop. Like Arkansas Loop the treated gas is then mixed with untreated gas to achieve a CO₂ percentage of less than 2%.

The facilities do not extract natural gas liquids from field gas nor fractionate mixed NGL's to natural gas products. The facilities have storage vessels, but none with the potential for flash emissions. The facilities have various heaters, tanks and pigging units that qualify as insignificant emission units. Insignificant emissions for the pigging units occur only during launch and retrieval operations.

The facilities are scheduled to operate 24 hours per day, 7 days per week, 365 days per year. Fuel used for all combustion units is pipeline quality natural gas from the facility process after compression, CO₂ removal and dehydration.

Arkansas Loop uses approximately 1,500 MMscf of fuel per year (4.0 MMscf/day, with a maximum fuel use of approximately 0.2 MMscf/hr). Total natural gas processed through the facility (including gas that bypasses the amine trains) is approximately 210 - 230MMscf/day.

Simpson uses approximately 600 MMscf of fuel per year (1,680 scf/day, with a maximum fuel use of approximately 0.1 MMscf/hr). Total natural gas processed through the facility is approximately 100 - 110 MMscf/day.

Two of the generator engines at Simpson are 4SLB SI RICE and are subject to 40 CFR 63 Subpart ZZZZ and/or 40 CFR 60 Subpart JJJJ regulations (see applicability determination for specific details). Red Cedar has selected oxidation catalyst as the means to satisfy the regulatory requirements for Carbon Monoxide (CO) reduction.

All TEG dehydrators are controlled using a combination of condensers and vapors being routed to the reboiler burner with the main fuel gas.

2. Source Emission Points

Table 1 - Emission Units

Emission Unit ID	Description				Control Equipment
	Waukesha L5790GL (4SLB SI) Natural Gas-Fired Generator Engine 1,272 Nameplate Rated HP				AFRC
E-001	Serial No.	C-12105/3	Install Date:	12/5/2016	
E-002	Serial No.	C-12002/1	Install Date:	9/6/2017	
E-003	Serial No.	WP1754A	Install Date:	11/18/2013	
	Ajax / Superior 16SGTB (4SLB SI) Natural Gas-Fired Compressor Engine 2,650 Nameplate Rated HP				AFRC
E-301	Serial No.	314849-S	Install Date:	5/24/2016	
E-401	Serial No.	323799	Install Date:	3/25/2013	
E-501	Serial No.	311459-S	Install Date:	5/16/2018	
E-601	Serial No.	314839-S	Install Date:	5/10/2010	
	Caterpillar G3606 (4SLB SI) Natural Gas-Fired Compressor Engine 1,775 Nameplate Rated HP				AFRC
E-701	Serial No.	3XF00162	Install Date:	10/1/2014	
E-801	Serial No.	3XF00252	Install Date:	10/1/2014	
	Caterpillar G3516B LE (4SLB SI) Natural Gas-Fired Generator Engine 1,622 Nameplate Rated HP				Miratech Oxidation Catalyst with AFRC
X-1003	Serial No.	ZBC00211	Install Date:	12/1/2010	
X-1004	Serial No.	ZBC00212	Install Date:	12/1/2010	
	Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater (Process Heater) 31.3 MMBtu/hr Maximum Design Heat Input Capacity				None
H-450	Serial No.	J-89-455	Install Date:	1/1/1989	

	Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater (Process Heater) 36.7 MMBtu/hr Maximum Design Heat Input Capacity				None
H-701	Serial No.	J-90-476	Install Date:	1/1/1990	
	Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater (Process Heater) 80 MMBtu/hr Maximum Design Heat Input Capacity				None
H-781	Serial No.	2009-022-Alt1	Install Date:	12/1/2010	
	J.W. Williams Triethylene Glycol (TEG) Dehydrator 37 MMscf/day				Condenser with vapor routed to reboiler
R-002	Serial No.	N/A	Install Date:	1/1/1989	
R-003	Serial No.	N/A	Install Date:	1/1/1992	
R-004	Serial No.	N/A	Install Date:	1/1/1989	
	J.W. Williams Triethylene Glycol (TEG) Dehydrator 30 MMscf/day				Condenser with vapor routed to reboiler
RB-050	Serial No.	N/A	Install Date:	1/1/1993	
	Q.B. Johnson Triethylene Glycol (TEG) Dehydrator 70 MMscf/day				Condenser with vapor routed to reboiler
X-1001	Serial No.	N/A	Install Date:	3/22/2011	
X-1002	Serial No.	N/A	Install Date:	3/22/2011	
	Propak Systems, Amine Plant 65 MMscf/day				None
Amine 1	Serial No.	N/A	Install Date:	1/1/1989	
	Propak Systems, Amine Plant 75 MMscf/day				None
Amine 2	Serial No.	N/A	Install Date:	1/1/1990	
	Thomas Russell Co., Amine Plant 140 MMscf/day				None
Amine 3	Serial No.	N/A	Install Date:	12/1/2010	

	Fugitive Emissions				None
FUG	Serial No.	N/A	Install Date:	N/A	

Table 2 - Insignificant Emission Units

Emission Unit ID	Amount	Description	Size	Units
R-002 – 050	4	TEG Reboiler	0.6	MMBtu/hr
H-001 – 020	5	Catalytic Heater	0.012	MMBtu/hr
CATH16	1	Catalytic Heater (Oil Separator Building)	0.012	MMBtu/hr
H-850	1	Evaporation Pond Heater	2.6	MMBtu/hr
TK-510, 511	2	Glycol Storage Tank	750	gal
TK-180	1	Glycol Recovery Tank	4,200	gal
TK-901 – 903	3	Waste Oil Sump Tank	300	gal
TK-980	1	Generator Oil Makeup Tank	1,001	gal
TK-981, 982	2	Generator Coolant Tank	500	gal
TK-506	1	Compressor Oil Makeup Tank (South)	1,600	gal
TK-506A	1	Compressor Oil Makeup Tank (North)	1,650	gal
TK-508	1	Coolant Storage Tank	1,000	gal
TK-508A	1	Compressor Coolant Drain Tank	300	gal
T-804	1	Waste Oil Tank	8,820	gal
GT-1	1	Gasoline Tank	1,000	gal
V-409	1	Amine Storage Tank	3,000	gal
BGS-2	1	Below Grade Sump Tank	7,481	gal
V-487, 488	2	TEG Reboiler	1.2	MMBtu/hr
TK-801	1	Inlet Coalescing Filter Dump Tank	8,820	gal
TK-881	1	Heat Medium Makeup Storage Tank	125	gal
TK-882	1	Heat Medium PSV Blowdown Tank	8,820	gal
TK-884	1	TEG Makeup Storage Tank	2,100	gal
TK-886	1	Dehy Still Vent Tank	1,316	gal
TK-887, 888	2	Coolant Tank	542	gal
TK-889	1	Used Engine Oil Tank	542	gal
TK-890	1	Engine Oil Tank	542	gal
TK-893	1	TEG Recovery Tank	2,100	gal
TK-894	1	Process and Oily Water Drain Tank	3,780	gal
TK-895	1	Oily Water Sump Tank	3,780	gal

Section II – General Requirements

1. Title V Administrative Requirements

1.1. Annual Fee Payment *[RAC 2-110(1)(h) and RAC 2-118]*

1.1.1. An annual operating permit emission fee shall be paid to the Tribe by the permittee.
[RAC 2-118(2)]

1.1.2. The permittee shall pay the annual permit fee each year no later than April 1st for the preceding calendar year.
[RAC 2-118(2)]

1.1.3. Fee payments shall be remitted in the form of a money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the Southern Ute Indian Tribe and sent or delivered by the United States Postal Service c/o Environmental Programs Division Part 70 Program, P.O. Box 737 MS #84, Ignacio, Colorado 81137; or by common carrier (such as UPS or FedEx) c/o Environmental Programs Division Part 70 Program, 398 Ouray Drive, Ignacio, Colorado 81137.
[RAC 2-118(4)(a)]

1.1.4. The permittee shall send an updated fee calculation worksheet submitted annually by the same deadline as required for fee payment to the address listed in the **Submissions** section of this permit.
[RAC 2-118]

1.1.5. Basis for calculating annual fee:

1.1.5.1. Subtotal annual fees shall be calculated by multiplying the applicable emission fee set pursuant to RAC § 2-119(1) times the total tons of actual emissions for each fee pollutant. In lieu of actual emissions, annual fees may be calculated based on the potential to emit for each fee pollutant. Emissions of any regulated air pollutant that already are included in the fee calculation under a category of regulated pollutant, such as a federally listed hazardous air pollutant that is already accounted for as a VOC or as PM10, shall be counted only once in determining the source's actual emissions.
[RAC 2-119(2)(a)]

- 1.1.5.1.1. “Actual emissions” means the actual rate of emissions in tpy of any fee pollutant (for fee calculation) emitted from a Title V source over the preceding calendar year or any other period determined by the Tribe to be more representative of normal operation and consistent with the fee schedule adopted by the Tribe and approved by the Administrator. Actual emissions shall be calculated using each emissions units actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year or other period used for this calculation.

[RAC 1-103(2)]

- 1.1.5.1.2. Actual emissions shall be computed using compliance methods required by the permit.

[RAC 2-118(1)(b)]

- 1.1.5.1.3. If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.

[RAC 2-118(1)(b)]

- 1.1.5.2. The total annual fee submitted shall be the greater of the applicable minimum fee or the sum of subtotal annual fees for all fee pollutants emitted from the source.

[RAC 2-119(2)(b)]

[Explanatory note: The applicable emission fee amount and applicable minimum fee (if necessary) are revised each calendar year to account for inflation, and they are available from AQP prior to the start of each calendar year.]

- 1.1.5.3. The permittee shall exclude the following emissions from the calculation of fees:

- 1.1.5.3.1. The amount of actual emissions of any one fee pollutant that the source emits in excess of 4,000 tons per year

- 1.1.5.3.2. Any emissions that come from insignificant activities not required in a permit application pursuant to RAC § 2-106(4).

[RAC 1-103(2)(c)]

1.1.6. Annual fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a responsible official.

[RAC 2-105 and RAC 2-118(2)(c)]

1.1.7. Failure of the permittee to pay fees by the due date shall subject the permittee to assessment of penalties and interest in accordance with RAC § 2-118(6).

[RAC 2-118(6)]

1.1.8. When notified by the Tribe of underpayment of fees, the permittee shall remit full payment within 30 days of receipt of an invoice from the Tribe.

[RAC 2-119(3)(b)]

1.1.9. A permittee who thinks a Tribe assessed fee is in error and who wishes to challenge such fee shall provide a written explanation of the alleged error to the Tribe along with full payment of the assessed fee.

[RAC 2-119(3)(c)]

1.2. Compliance Requirements

1.2.1. Compliance with the Permit

1.2.1.1. The permittee must comply with all conditions of this part 70 permit. Any permit noncompliance with federally enforceable or Commission-only permit conditions constitutes a violation of the RAC and Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application.

[RAC 2-110(3)(a)]

1.2.1.2. 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.

[RAC 2-110(3)(b)]

1.2.1.3. All terms and conditions of this permit which are required under the Clean Air Act or under any of its applicable requirements, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Clean Air Act, except terms and conditions the permit specifically designates as not being federally enforceable under the Clean Air Act that are not required under the Clean Air Act or under any of its applicable requirements. Terms and conditions

so designated are not subject to the requirements of RAC §§ 2-108, 2-111, 2-112, other than those contained in this paragraph.

[RAC 2-110(3)(f)]

- 1.2.1.4. This permit, or the filing or approval of a compliance plan, does not relieve any person from civil or criminal liability for failure to comply with the provisions of the RAC and the Clean Air Act, applicable regulations thereunder, and any other applicable law or regulation.

[RAC 2-110(3)(g)]

- 1.2.1.5. For the purpose of submitting compliance certifications in accordance with the Compliance Certifications condition below of this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the Act, 40 CFR §§ 51.212, 52.12, 52.33, 60.11(g), and 61.12]

1.2.2. Compliance Certifications

- 1.2.2.1. The permittee shall submit to the Tribe and the Administrator an annual certification of compliance which shall certify the source's compliance status with all permit terms and conditions and all applicable requirements relevant to the source, including those related to emission limitations, standards, or work practices. The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with RAC § 2-110(9)(a). The certification of compliance shall be submitted annually by April 1st and shall cover the preceding calendar year in which the certification of compliance is due, except that the first annual certification of compliance will cover the period from the issuance date of this permit through December 31st of the same year.

[RAC 2-110(9)(c)]

1.2.3. Compliance Schedule

- 1.2.3.1. For applicable requirements with which the source is in compliance, the source will continue to comply with such requirements.

[RAC 2-106(4)(l)(ii)]

- 1.2.3.2. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis.

[RAC 2-106(4)(l)(iii)]

1.3. Duty to Provide and Supplement Information [RAC 2-110(7)(e), 2-106(5), and 2-124]

- 1.3.1. The permittee shall furnish to the Tribe, within the period specified by the Tribe, any information that the Tribe request in writing to determine whether cause exists for reopening and revising, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Tribe copies of records that are required to be kept by the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of RAC 2-124.

[RAC 2-110(7)(e) and RAC 2-124]

- 1.3.2. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application or in a supplemental submittal, shall promptly submit such supplementary facts or corrected information. In addition, a permittee shall provide additional information as necessary to address any requirements that become applicable after the date a complete application is filed, but prior to release of a draft permit.

[RAC 2-106(5)]

1.4. Submissions [RAC 2-105]

- 1.4.1. Any application, form, report, compliance certification, or other document submitted by the permittee under this permit shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Explanatory Note: The Tribe has developed a reporting form “CTAC” for certifying truth, accuracy and completeness of part 70 submissions. The form may be found on the AQP’s website (<http://www.southernute-nsn.gov/environmental-programs/air-quality>).]

- 1.4.2. Except where otherwise noted, any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted:

by email at: airquality@southernute-nsn.gov

or by United States Postal Service:
Part 70 Program
Environmental Programs Division
Air Quality Program
P.O. Box 737 MS #84
Ignacio, Colorado 81137

or by Common Carrier:
Part 70 Program
Environmental Programs Division
Air Quality Program
398 Ouray Drive
Ignacio, CO 81137

1.5. Severability Clause *[RAC 1-106 and RAC 2-110(1)(f)]*

The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any provision is held invalid, the remaining permit conditions shall remain valid and in force.

1.6. Permit Actions *[RAC 2-110(3)]*

- 1.6.1. This permit may be modified, reopened and revised, revoked and reissued, or terminated for cause.

[RAC 2-110(3)(c)]

- 1.6.2. The filing by the permittee of a request for a permit revision, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition.

[RAC 2-110(3)(d)]

1.7. Administrative Permit Revision *[RAC 2-111(2)]*

- 1.7.1. The permittee may submit an application for an administrative permit revision as defined in RAC § 1-103.

[RAC 2-111(2)(a)]

- 1.7.2. The permittee may implement an administrative permit revision immediately upon submittal of the request for the administrative revision.

[RAC 2-111(2)(c)]

[Note to permittee: If the provisions allowing for an administrative permit revision do not apply, please contact the Air Quality Program for a determination of similarity prior to submitting your request for an administrative permit revision.]

1.8. Minor Permit Revisions [RAC 2-111(3)]

1.8.1. The permittee may submit an application for a minor permit revision as defined in RAC § 1-103.

1.8.2. An application requesting the use of minor permit revision procedures shall meet the requirements of RAC § 2-106(4) and shall include the following:

1.8.2.1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

1.8.2.2. If changes are requested to the permit language, the permittee's suggested draft permit changes;

1.8.2.3. Certification by a responsible official, consistent with RAC § 2-105, that the proposed revision meets the criteria for use of minor permit revision procedures and a request that such procedures be used; and

1.8.2.4. Completed forms for the Tribe to use to notify the Administrator and affected programs as required under RAC § 2-108

1.8.2.5. If the requested permit revision would affect existing compliance plans or schedules, related progress reports, or certification of compliance requirements, and an outline of such effects.

[RAC 2-111(3)(a)]

1.8.3. The permittee shall not submit multiple minor permit revision applications that may conceal a larger revision that would not constitute a minor permit revision.

[RAC 2-111(3)(b)]

1.8.4. The permittee may make the change proposed in its minor permit revision application immediately after it files such application, provided, however, for sources that have previously utilized this provision during the term of the permit and, on two or more occasions have failed to file a complete application, may thereafter make the change only after the application is deemed complete. After the permittee makes the change and until the Tribe takes any of the actions specified

in the following subsection, the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the permittee need not comply with the existing permit terms and conditions it seeks to modify. If the permittee fails to comply with its proposed permit terms and conditions during this period, however, the existing permit terms and conditions it seeks to modify may be enforced against it.

[RAC 2-111(3)(e)]

- 1.8.5. The permit shield under RAC § 2-110(10) does not extend to minor permit revisions.

[RAC 2-110(10)(d)]

1.9. Significant Permit Revisions [RAC 2-111(4)]

- 1.9.1. The permittee must request the use of significant permit revision procedures as defined in RAC § 1-103.
- 1.9.2. Significant permit revisions shall meet all requirements of the RAC for permit issuance and renewal, including those for applications, review by the Administrator and affected programs, and public participation.

[RAC 2-111(4), 2-109, and 2-106(3)]

1.10. Permit Reopenings, Revocations and Reissuances, and Terminations [RAC 2-112]

- 1.10.1. The permit may be reopened and revised for any of the reasons listed in the paragraphs below. Alternatively, the permit may be revoked and reissued for the reasons listed in the paragraphs below:

- 1.10.1.1. Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of 3 or more years, provided that the Tribe shall revise such permits to incorporate such additional requirements no later than 18 months after promulgation of such requirements, and no such reopening is required if the effective date of the requirement is later than the permit expiration date unless the original permit or any of its terms or conditions have been extended past the permit expiration date pursuant to RAC § 2-104(2)(b)(iii);
- 1.10.1.2. Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval

by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;

1.10.1.3. The Tribe or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the terms or conditions of the permit; or

1.10.1.4. The Tribe or the Administrator determines that the permit must be revised or revoked and reissued to assure compliance with applicable requirements.

1.10.2. The permit may be terminated for any of the reasons listed below:

1.10.2.1. The permittee fails to meet the requirements of an approved compliance plan;

1.10.2.2. The permittee has been in significant or repetitious noncompliance with the operating permit terms or conditions;

1.10.2.3. The permittee has exhibited a history of willful disregard for environmental laws of any tribal or state authority, or of the United States;

1.10.2.4. The permittee has knowingly misrepresented a material fact in any application, record, report, plan, or other document filed or required to be maintained under the permit;

1.10.2.5. The permittee falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under the permit;

1.10.2.6. The permittee fails to pay fees required under RAC §§ 2-118 and 2-119; or

1.10.2.7. The Administrator has found that cause exists to terminate the permit.

1.11. Property Rights [RAC 2-110(3)(e)]

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

1.12. Inspection and Entry [RAC 2-110(9)(b)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Tribe or other authorized representative to perform the following:

- 1.12.1. 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 the permit;
- 1.12.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- 1.12.3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- 1.12.4. As authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

1.13. Emergency Situations [RAC 2-117]

- 1.13.1. 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 RAC § 1-103. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - 1.13.1.1. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - 1.13.1.2. The permitted facility was at the time being properly operated;
 - 1.13.1.3. 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; and
 - 1.13.1.4. The permittee reported the emergency to the Tribe in compliance with RAC § 2-110(7).

[RAC 2-117(1)]

1.13.2. In any enforcement preceding the permittee attempting to establish the occurrence of an emergency has the burden of proof.

[RAC 2-117(2)]

1.13.3. This emergency situation provision is in addition to any emergency or upset provision contained in any applicable requirement.

[RAC 2-117(3)]

1.14. Permit Transfers [RAC 2-113]

1.14.1. This permit shall not be transferable, by operation of law or otherwise, from one location to another or from one source to another, except that a permit may be transferred from one location to another in the case of a portable source that has notified the Tribe in advance of the transfer, pursuant to the RAC. A permit for a source may be transferred from one person to another if the Tribe finds that the transferee is capable of operating the source in compliance with the permit. This transfer must be accomplished through an administrative permit revision in accordance with the Administrative Permit Revisions section of this permit.

1.15. Off-Permit Changes [RAC 2-116(2)]

1.15.1. The permittee is allowed to make, without a permit revision, certain changes that are not addressed or prohibited by this permit provided that the following requirements are met:

1.15.1.1. Each such change meets all applicable requirements and shall not violate any existing permit term or condition;

1.15.1.2. Such changes are not subject to any requirements under title IV of the Clean Air Act and are not modifications under title I of the Clean Air Act;

1.15.1.3. Such changes are not subject to permit revision procedures under RAC § 2-111; and

1.15.1.4. The permittee provides contemporaneous written notice to the Tribe and the Administrator of each such change, except for changes that qualify as insignificant activities. Such notice shall state when the change occurred and shall describe the change, any resulting emissions change, pollutants

emitted, and any applicable requirement that would apply as a result of the change.

[RAC 2-116(2)(a)]

1.15.2. The permit shield does not apply to changes made under this provision.

[RAC 2-110(10)(d)]

1.15.3. The permittee shall keep a record describing changes made at the source that result in emissions of any regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[RAC 2-116(2)(b)]

1.15.4. A copy of each off-permit change notification shall be made available to the Tribe upon request.

[RAC 2-110(6)]

1.16. Permit Expiration and Renewal

[RAC §§ 2-104(3), 2-106(2)(b), 2-107(7)(a), 2-107(7)(b), 2-110(1)(a), and 2-106(3)]

1.16.1. This permit shall expire five years from the issuance date of this permit.

[RAC 2-110(1)(a)]

1.16.2. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted at least 6 months but not more than 18 months prior to the date of expiration of this permit.

[RAC 2-107(7)(b)]

1.16.3. If the permittee submits a timely and complete permit application for renewal, consistent with RAC § 2-106 but the Tribe has failed to issue or disapprove a renewal permit before the end of the permit term, then the permit shall not expire and all its terms and conditions shall remain in effect until the renewal permit has been issued or disapproved.

[RAC 2-104(2)(b)]

1.16.4. The ability to operate under this permit shall cease if (1) the Tribe takes final action to issue the permittee a renewal permit or deny the permittee a permit or (2) the permittee fails to submit by the deadline specified in writing by the Tribe any additional information identified as being needed to process the application.

[RAC 2-104(3)]

1.16.5. Renewal of this permit is subject to the same procedures, including those for public participation and affected program and EPA review, as those that apply to initial permit issuance.

[RAC 2-107(7)(a)]

1.16.6. The application for renewal shall include the current permit number, description of permit revisions and off permit changes that occurred during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form.

[RAC 2-106(4)(e)(ix)]

2. Facility-Wide Requirements

Conditions in this section of the permit apply to all emissions units located at the facility, including any units not specifically listed in Table 1 or Table 2 of the Source Emission Points section of this permit.

[RAC 2-110(1)(d)]

2.1. General Recordkeeping Requirements *[RAC 2-110(6)]*

The permittee shall comply with the following generally applicable recordkeeping requirements:

2.1.1. If the permittee determines that his or her stationary source that emits (or has the potential to emit, without federally recognized controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR part 63, the permittee shall keep a record of the applicability determination, for a period of five years after the determination, or until the source changes its operations to become an affected source, whichever comes first. Each of these records shall be made available to the Tribe upon request. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the permittee believes the source is unaffected (e.g., because the source is an area source).

[40 CFR 63.10(b)(3)]

2.1.2. Records shall be kept of off permit changes made, as required by the Off Permit Changes section of this permit.

2.2. General Reporting Requirements

2.2.1. The permittee shall submit to the Tribe all reports of any required monitoring under this permit semiannually, by April 1 and October 1 of each year. The report due on April 1 shall cover the July 1 – December 31 reporting period of the previous calendar year. The report due on October 1 shall cover the January 1 – June 30 reporting period of the current calendar year. All instances of deviations from permit requirements shall be clearly identified in such reports. All required reports shall be certified by a responsible official consistent with the Submissions section of this permit.

[RAC 2-110(7)(a)]

2.2.2. “Deviation” means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with RAC 2-110(5) and (6). For a situation lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

2.2.2.1. A situation where emissions exceed an emission limitation or standard;

2.2.2.2. A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met; or

2.2.2.3. A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit.

2.2.2.4. A situation in which an exceedance or an excursion, as defined in 40 CFR Part 64 occurs.

[RAC 1-103(21)]

2.2.3. The permittee shall promptly report to the Tribe deviations from permit requirements, (including emergencies), including the date, time, duration, and the probable cause of such deviations, the quantity and pollutant type of excess emissions resulting from the deviation, and any preventative, mitigation, or corrective actions or measures taken. Prompt deviation reports shall be submitted to the following email address: airquality@southernute-nsn.gov

2.2.4. “Prompt” is defined as follows:

2.2.4.1. Where the underlying applicable requirement contains a definition of “prompt” or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern.

2.2.4.2. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

2.2.4.2.1. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made by email, telephone, verbal, or facsimile communication by the close of business the next working day, upon discovery of the occurrence, and in writing within 10 working days from the occurrence;

2.2.4.2.2. For emissions of any regulated air pollutant, excluding those listed in RAC § 2-110(7)(b)(i), that continue for more than 2 hours in excess of permit requirements, the report must be made by email, telephone, verbal, or facsimile communication by the close of business the next working day, upon discovery of the occurrence, and in writing within 10 working days from the occurrence;

2.2.4.2.3. For all other deviations from permit requirements, the report shall be contained in the report submitted with the semi-annual monitoring report.

[RAC 2-110(7)(b)]

2.3. Alternative Operating Scenarios [RAC 2-110(8)]

2.3.1. Replacement of an existing engine or turbine identified in this permit shall be allowed as an off-permit change pursuant to the Off Permit Changes provisions of this permit provided all of the following conditions are met:

2.3.1.1. The engine or turbine replacement is not subject to any requirements under Title IV of the Clean Air Act and is not a modification under Title I of the Clean Air Act;

- 2.3.1.2. The replacement engine or turbine is of the same make, model, horsepower rating, and configured to operate in the same manner as the engine or turbine being replaced.
- 2.3.1.3. The replacement engine or turbine meets all applicable requirements identified in this permit that apply to the existing engine or turbine being replaced.
- 2.3.1.4. All applicable requirements that apply to the replacement engine or turbine are already included in the permit. Replacement of an existing engine or turbine identified in this permit with a new, modified, or reconstructed engine must utilize a Minor Permit Revision as specified in RAC 2-111(3) or a Significant Permit Revision as specified in RAC 2-111(4) to incorporate any new applicable requirements. The applicable requirements include, but may not be limited to:
 - 2.3.1.4.1. Standards of Performance for Stationary Compression Ignition Internal Combustion at 40 CFR Part 60, Subpart IIII;
 - 2.3.1.4.2. Standards of Performance for Stationary Spark Ignition Internal Combustion Engines at 40 CFR Part 60, Subpart JJJJ;
 - 2.3.1.4.3. National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines at 40 CFR Part 63, Subpart ZZZZ;
 - 2.3.1.4.4. Standards of Performance for Stationary Gas Turbines at 40 CFR Part 60, Subpart GG;
 - 2.3.1.4.5. Standards of Performance for Stationary Combustion Turbines at 40 CFR Part 60, Subpart KKKK;
 - 2.3.1.4.6. National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines at 40 CFR Part 63, Subpart YYYY;
 - 2.3.1.4.7. Requirements established in a permit or permits issued pursuant to the Federal Minor New Source Review Program in Indian Country at 40 CFR Part 49;

- 2.3.1.4.8. Requirements established in a permit or permits issued pursuant to the Prevention of Significant Deterioration of Air Quality Program at 40 CFR Part 52; or
- 2.3.1.4.9. Requirements established in any promulgated Federal Implementation Plan that may apply to engines located on the Southern Ute Indian Reservation.
- 2.3.2. The permittee shall provide contemporaneous written notice to the Tribe and the Administrator of any replacement of an existing engine or turbine identified in this permit. Such notice shall state when the replacement occurred and shall describe the replacement and any applicable requirement that would apply as a result of the replacement.
- 2.3.3. The permittee shall keep a record of the engine or turbine replacement.
- 2.3.4. The use of a backup thermal oxidizer with equivalent capacity and emission destruction efficiency and configured to operate in the same manner as the primary thermal oxidizer shall be an allowed alternative operating scenario under this permit provided that the following conditions are met:
 - 2.3.4.1. Any emission limits, requirements, testing or other provisions that apply to the primary thermal oxidizer shall also apply to the backup thermal oxidizer except that an annual performance test shall only be conducted on the backup thermal oxidizer if the unit operates for more than 500 hours in any calendar year.
 - 2.3.4.2. At no time shall the backup thermal oxidizer operate at the same time the primary thermal oxidizer is operating except periods of transition between the primary and backup thermal oxidizers. Transition events shall be documented, last no more than 30 minutes in duration, and will be reported as excess emission events.

2.4. Permit Shield [RAC 2-110(10)(c)]

Nothing in this permit shall alter or affect the following:

- 2.4.1. The provisions of Section 303 of the Clean Air Act, 42 U.S.C. § 7603 concerning emergency powers, including the respective authorities of the Administrator under those sections;

- 2.4.2. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.4.3. The applicable requirements of the acid rain program consistent with section 408(a) of the Act; or
- 2.4.4. The ability of the Administrator respectively to obtain information from a source pursuant to Section 114 of the Clean Air Act, 42 U.S.C. § 7414.

2.5. Stratospheric Ozone and Climate Protection [40 CFR Part 82]

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F:

- 2.5.1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR §82.156.
- 2.5.2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR §82.158.
- 2.5.3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.

Section III – Site Specific Permit Terms

1. New Source Performance Standards (NSPS) and 40 CFR Part 60

1.1. 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60.40c – 60.48c, RAC 3-102]

This facility is subject to the requirements of 40 CFR Part 60, Subpart Dc for steam generating units with a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less but greater than or equal to 2.9 MW (10 MMBtu/h) and constructed after June 9, 1989. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 60, Subparts A and Dc.

1.1.1. Affected Sources

The following emission units are considered affected sources under 40 CFR Part 60, Subpart Dc:

H-701 – Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater (Process Heater), 36.7 MMBtu/hr Maximum Design Heat Input Capacity

H-781 – Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater (Process Heater), 80 MMBtu/hr Maximum Design Heat Input Capacity
[40 CFR 60.40c]

1.1.2. Reporting and Recordkeeping Requirements

1.1.2.1. The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

1.1.2.1.1. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

1.1.2.1.2. If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

1.1.2.1.3. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

1.1.2.1.4. Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

- 1.1.2.2. The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
- 1.1.2.3. All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
- 1.1.2.4. The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.
[40 CFR 60.48c]

1.2. 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230 – 60.4248, RAC 4-103]

This facility is subject to the requirements of 40 CFR Part 60, Subpart JJJJ for lean burn stationary spark ignition (SI) internal combustion engines (ICE) with a maximum engine power greater than or equal to 500 brake horsepower (HP) manufactured after July 1, 2007. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 60, Subparts A and JJJJ.

1.2.1. Affected Sources

The following emission units are considered affected sources under 40 CFR Part 60, Subpart JJJJ:

X-1003 – Caterpillar G3516B LE (4SLB SI) Natural Gas-Fired Generator
Engine, 1,622 Nameplate Rated HP

X-1004 – Caterpillar G3516B LE (4SLB SI) Natural Gas-Fired Generator
Engine, 1,622 Nameplate Rated HP

[40 CFR 60.4230]

1.2.2. Emission Standards for Owners and Operators

- 1.2.2.1. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

[40 CFR 60.4233]

Table 1 to Subpart JJJJ of Part 60—NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP								
Engine type and fuel	Maximum engine power	Manufacture date	Emission standards^a					
			g/HP-hr			ppmvd at 15% O₂		
			NO_x	CO	VOC^d	NO_x	CO	VOC^d
Non-Emergency SI Lean Burn Natural Gas ^b	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60

^aOwners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

^bOwners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

^dFor purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

- 1.2.2.2. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

[40 CFR 60.4234]

1.2.3. Compliance Requirements for Owners and Operators

- 1.2.3.1. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(e), you must demonstrate compliance according to the subparagraphs below.

- 1.2.3.1.1. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(e) and according to the requirements specified in §60.4244 as applicable, and according to the subparagraph below.

- 1.2.3.1.1.1. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

- 1.2.3.2. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

[40 CFR 60.4243]

1.2.4. Testing Requirements for Owners and Operators

- 1.2.4.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in the paragraphs of the section below.

- 1.2.4.1.1. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests				
As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load				
For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244	a. limit the concentration of NO _x in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the

				duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) ^{ad}	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	(c) Measurements to determine moisture must be made at the same time as the measurement for NO _x concentration.
		v. Measure NO _x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005) ^{ad} , Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3%

				of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) ^{ad}	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005) ^{ade} , Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	(d) Results of this test consist of the average of the three 1-hour or longer runs.

	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) ^{ad}	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.
		v. Measure VOC at the exhaust of the stationary internal	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-	(d) Results of this test consist of the average of the three 1-hour or longer runs.

		combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	7, Method 25A with the use of a hydrocarbon cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6 ^{ce} , Method 320 of 40 CFR part 63, appendix A ^e , or ASTM Method D6348-03 ^{de}	
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^aAlso, you may petition the Administrator for approval to use alternative methods for portable analyzer.

^bYou may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O₂ content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

^cYou may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

^dIncorporated by reference; see 40 CFR 60.17.

^eYou must meet the requirements in §60.4245(d)

1.2.4.1.2. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

1.2.4.1.3. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

1.2.4.1.4. To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 1)$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- 1.2.4.1.5. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 2)$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- 1.2.4.1.6. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation,

convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 3)$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- 1.2.4.1.7. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_1 = \frac{C_{Mi}}{C_{Ai}} \quad (Eq. 4)$$

Where:

RF_i = Response factor of compound I when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound I in ppmv as carbon.

C_{Ai} = True concentration of compound I in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (Eq. 5)$$

Where:

C_{icorr} = Concentration of compound I corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound I measured by EPA Method 320, ppmv as carbon

$$C_{peq} = 0.6098 \times C_{icorr} \quad (Eq. 6)$$

Where:

C_{peq} = Concentration of compound I in mg of propane equivalent per DSCM.

[40 CFR 60.4244]

1.2.5. Notification, Reports, and Records for Owners and Operators

1.2.5.1. Owners and operators of all stationary SI ICE must keep records of the information in the subparagraphs below.

1.2.5.1.1. All notifications submitted to comply with this subpart and all documentation supporting any notification.

1.2.5.1.2. Maintenance conducted on the engine.

1.2.5.1.3. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

1.2.5.2. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in the subparagraphs below.

1.2.5.2.1. Name and address of the owner or operator;

1.2.5.2.2. The address of the affected source;

1.2.5.2.3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

1.2.5.2.4. Emission control equipment; and

1.2.5.2.5. Fuel used.

1.2.5.3. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

[40 CFR 60.4245]

1.2.6. General Provisions

1.2.6.1. Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ			
As stated in §60.4246, you must comply with the following applicable General Provisions			
General provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

[40 CFR 60.4246]

2. National Emission Standards for Hazardous Air Pollutants (NESHAP) and 40 CFR Part 63

2.1. 40 CFR Part 63, Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities [40 CFR 63.760 – 63.779, RAC 4-103]

The permittee is the owner or operator of glycol dehydration units that are exempt from the standards of 40 CFR §63.764(d). The permittee shall retain each determination used to demonstrate that the actual average benzene emissions from each dehydrator are below 0.90 megagram per year.

[40 CFR 63.764(e)(1), 63.772(b), and 63.774(d)(1)]

2.1.1. The permittee must obtain an extended wet gas analysis of the inlet gas stream at least once per calendar year. The gas sample shall be taken at a point prior to where the gas enters the dehydration system contact tower. The analysis shall include the gas temperature and pressure at which the sample was taken. This analysis must be used to determine the actual average benzene emissions annually, as determined in accordance with §63.772(b)(2)(i).

2.1.2. The permittee must conduct an annual source determination using the gas analysis outlined in the paragraph above. The source determination shall be made using the procedure outlined in §63.760(a)(1).

[RAC 2-110(5)(b)]

2.2. 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR §63.6580 – 63.6660 and RAC §4-103]

This facility is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ for new four-stroke lean burn (4SLB) stationary reciprocating internal combustion engines (RICE) with a site rating of greater than 500 brake horsepower located at a major source of hazardous air pollutants (HAPs). Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 63 Subparts A and ZZZZ.

[On April 22, 2020, EPA Region 8 approved an alternative testing method for 40 C.F.R. Part 63, Subpart ZZZZ. The Subpart ZZZZ citations in this section do not necessarily represent the approved alternative testing method.]

2.2.1. Affected Sources

2.2.1.1. 40 CFR Part 63, Subpart ZZZZ applies to the following emission units:

X-1003 – Caterpillar G3516B LE Natural Gas-Fired Compressor Engine,
1,622 Nameplate Rated HP

X-1004 – Caterpillar G 3516B LE Natural Gas-Fired Compressor Engine,
1,622 Nameplate Rated HP

[40 CFR 63.6590]

2.2.2. Emission and Operating Limitations

2.2.2.1. You must comply with the requirements in Table 2a and 2b to this subpart which apply.

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions		
As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:		
For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New Stationary RICE \geq250 HP Located at a Major Source of HAP Emissions	
As stated in §§63.6600, 63.6630, and 63.6640, you must comply with the following operating limitations for new 4SLB stationary RICE \geq 250 HP located at a major source of HAP emissions	
For each . . .	You must meet the following operating limitation, except during periods of startup . . .
New 4SLB stationary RICE \geq 250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[40 CFR 63.6600]

2.2.3. General Compliance Requirements

- 2.2.3.1. You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply at all times.
- 2.2.3.2. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Tribe which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605]

2.2.4. Testing and Initial Compliance Requirements

2.2.4.1. If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

2.2.4.1.1. You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests				
As stated in §§63.6610, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE				
For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 4SLB stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O ₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.

		ii. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^{ac} (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) ^{abc} (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.

^aYou may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

^bYou may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

2.2.4.1.2. An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in the following five subparagraphs.

2.2.4.1.2.1. The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

2.2.4.1.2.2. The test must not be older than 2 years.

2.2.4.1.2.3. The test must be reviewed and accepted by the Administrator.

2.2.4.1.2.4. Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably

demonstrate compliance despite process or equipment changes.

- 2.2.4.1.2.5. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.¹

[40 CFR 63.6610]

- 2.2.4.2. If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests		
As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:		
For each . . .	Complying with the requirement to . . .	You must . . .
1. New 4SLB stationary RICE ≥ 250 HP located at major sources;	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

- 2.2.4.2.1. For semi-annual performance tests, the tests shall be performed each consecutive calendar half-year. A calendar half-year is defined as the six-month period from January 1 through June 30 or from July 1 through December 31. All semi-annual performance tests shall be performed within 4 to 8 months of the previous test.

- 2.2.4.2.2. For annual performance tests, the tests shall be performed each consecutive calendar year between January and December. Subsequent tests shall be performed 10 to 14 months after the previous test.

[40 CFR 63.6615 and RAC 2-110(5)]

¹ On April 22, 2020, EPA Region 8 approved an alternative testing method for 40 C.F.R. Part 63, Subpart ZZZZ. The Subpart ZZZZ citations in this section do not necessarily represent the approved alternative testing method.

- 2.2.4.3. You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- 2.2.4.4. Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in the paragraphs below.²
- 2.2.4.4.1. New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.
- 2.2.4.5. You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.
- 2.2.4.6. You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq. 1)$$

Where:

C_i = concentration of carbon monoxide (CO) at the control device inlet,

C_o = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions.

² On April 22, 2020, EPA Region 8 approved an alternative testing method for 40 C.F.R. Part 63, Subpart ZZZZ. The Subpart ZZZZ citations in this section do not necessarily represent the approved alternative testing method.

2.2.4.7. You must normalize the CO concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in the subparagraphs below.

2.2.4.7.1. Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209F_d}{F_c} \quad (Eq. 2)$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu)

2.2.4.7.2. Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO₂} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂—15 percent O₂, the defined O₂ correction value, percent.

- 2.2.4.7.3. Calculate the CO gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO adjusted to 15 percent O₂.

C_d = Measured concentration of CO uncorrected.

X_{CO₂} = CO₂ correction factor, percent.

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

- 2.2.4.8. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[40 CFR 63.6620]

- 2.2.4.9. If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in the following subparagraphs.

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements		
As stated in. §63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:		
For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New non-emergency 4SLB stationary RICE \geq 250 HP located at a major source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

2.2.4.9.1. You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in the following five subparagraphs and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in the following five subparagraphs in your site-specific monitoring plan.

2.2.4.9.1.1. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

2.2.4.9.1.2. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

2.2.4.9.1.3. Equipment performance evaluations, system accuracy audits, or other audit procedures;

- 2.2.4.9.1.4. Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and
- 2.2.4.9.1.5. Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).
- 2.2.4.9.2. You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
- 2.2.4.9.3. The CPMS must collect data at least once every 15 minutes (see also §63.6635).
- 2.2.4.9.4. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- 2.2.4.9.5. You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
- 2.2.4.9.6. You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- 2.2.4.10. If you operate a new stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2a to this subpart apply.

[40 CFR 63.6625]
- 2.2.4.11. You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- 2.2.4.12. During the initial performance test, you must establish each operating limitation in Table 2b of this subpart that applies to you.

- 2.2.4.13. You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

[40 CFR 63.6630]

2.2.5. Continuous Compliance Requirements

- 2.2.5.1. If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- 2.2.5.2. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- 2.2.5.3. You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[40 CFR 63.6635]

- 2.2.5.4. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 2a and 2b to this subpart that applies to you according to methods specified in Table 6 to this subpart.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements		
As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:		
For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New non-emergency 4SLB stationary RICE ≥ 250 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

^aAfter you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

2.2.5.5. You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 2a and 2b to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

2.2.5.5.1. You must conduct the performance test within 180 days of the catalyst change.

2.2.5.6. For new stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE

means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

- 2.2.5.7. You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply.

[40 CFR 63.6640 and RAC 2-110(5)]

2.2.6. Notifications, Reports, and Records

- 2.2.6.1. You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.
- 2.2.6.2. You must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- 2.2.6.3. If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- 2.2.6.4. If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

- 2.2.6.4.1. For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[40 CFR 63.6645]

- 2.2.6.5. You must submit each report in Table 7 of this subpart that applies to you.

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. New non-emergency stationary RICE >500 HP located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).

2.2.6.6. You must submit a compliance report semi-annually by April 1 and October 1 of each year. The report due on April 1 shall cover the July 1 – December 31 reporting period of the previous calendar year. The report due on October 1 shall cover the January 1 – June 30 reporting period of the current calendar year.

2.2.6.7. The Compliance report must contain the information in the following six subparagraphs.

2.2.6.7.1. Company name and address.

2.2.6.7.2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

2.2.6.7.3. Date of report and beginning and ending dates of the reporting period.

- 2.2.6.7.4. If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
- 2.2.6.7.5. If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- 2.2.6.7.6. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- 2.2.6.8. For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs §63.6650(c)(1) through (4) and the following subparagraphs below.
 - 2.2.6.8.1. The date and time that each malfunction started and stopped.
 - 2.2.6.8.2. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - 2.2.6.8.3. The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
 - 2.2.6.8.4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

- 2.2.6.8.5. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- 2.2.6.8.6. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- 2.2.6.8.7. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- 2.2.6.8.8. An identification of each parameter and pollutant (CO) that was monitored at the stationary RICE.
- 2.2.6.8.9. A brief description of the stationary RICE.
- 2.2.6.8.10. A brief description of the CMS.
- 2.2.6.8.11. The date of the latest CMS certification or audit.
- 2.2.6.8.12. A description of any changes in CMS, processes, or controls since the last reporting period.
- 2.2.6.9. You must report all deviations as defined in 40 CFR Part 63, Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A).
[40 CFR 63.6650]
- 2.2.6.10. If you must comply with the emission and operating limitations, you must keep the records described in the following five subparagraphs and §63.6655(b)(1) through (b)(3).
 - 2.2.6.10.1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

- 2.2.6.10.2. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
 - 2.2.6.10.3. Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
 - 2.2.6.10.4. Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - 2.2.6.10.5. Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- 2.2.6.11. For each CEMS or CPMS, you must keep the records listed in the following three subparagraphs.
- 2.2.6.11.1. Records described in §63.10(b)(2)(vi) through (xi).
 - 2.2.6.11.2. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
 - 2.2.6.11.3. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.
- 2.2.6.12. You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies.
- [40 CFR 63.6655]
- 2.2.6.13. Records must be kept in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- 2.2.6.14. As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- 2.2.6.15. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).
[40 CFR 63.6660]

2.2.7. Other Requirements and Information

- 2.2.7.1. Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

Table 8 to Subpart ZZZZ of Part 63 – Applicability of General Provisions to Subpart ZZZZ			
As stated in §63.6665, you must comply with the following applicable general provisions.			
General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	

§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.

§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.

§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	

§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

[40 CFR 63.6665]

2.3. 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR §63.7480 – 63.7575 and RAC §4-103]

This facility is subject to the requirements of 40 CFR Part 63, Subpart DDDDD for new process heaters with a maximum heat capacity greater than 10 MMBtu/hr and existing process heaters with a maximum heat capacity greater than 10 MMBtu/hr located at a major source of hazardous air pollutants (HAPs). Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 63, Subparts A and DDDDD.

2.3.1. Affected Sources

2.3.1.1. 40 CFR Part 63, Subpart DDDDD applies to the following emission units:

H-450 – Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater, 31.3 MMBtu/hr Maximum Design Heat Input

H-701 - Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater, 36.7 MMBtu/hr Maximum Design Heat Input

H-781- Optimized Process Furnaces, INC. Natural Gas-Fired Heat Medium Heater, 80 MMBtu/hr Maximum Design Heat Input
[40 CFR 63.7490]

2.3.2. Emission Limitations and Work Practice Standards

2.3.2.1. You must meet the requirements in the following two subparagraphs below.

2.3.2.1.1. You must meet each work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.

Table 3 to Subpart DDDDD of Part 63—Work Practice Standards

As stated in §63.7500, you must comply with the following applicable work practice standards:

If your unit is . . .	You must meet the following . . .
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in §63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
4. An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in §63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in §63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

2.3.2.1.2. At all times, you must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control

equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

2.3.2.2. As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

2.3.2.3. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.
[40 CFR 63.7500]

2.3.3. General Compliance Requirements

2.3.3.1. You must be in compliance with the work practice standards in this subpart.
[40 CFR 63.7505]

2.3.4. Testing, Fuel Analyses, and Initial Compliance Requirements

2.3.4.1. For new or reconstructed affected sources (as defined in §63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in §63.7515(d) following the initial compliance date specified in §63.7495(a). Thereafter, you are required to complete the applicable annual tune-up as specified in §63.7515(d).
[40 CFR 63.7510]

2.3.4.2. If you are required to meet an applicable tune-up work practice standard, you must conduct an annual performance tune-up according to §63.7540(a)(10). Each annual tune-up specified in §63.7540(a)(10) must be no more than 13 months after the previous tune-up. For a new or reconstructed affected source (as defined in §63.7490), the first annual tune-up must be no later than 13 months after the initial startup of the new or reconstructed affected source, whichever is later.

- 2.3.4.3. You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to this subpart, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

2.3.5. Continuous Compliance Requirements

- 2.3.5.1. You must demonstrate continuous compliance with the work practice standards in Table 3 to this subpart that applies to you.

- 2.3.5.1.1. If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in the subparagraphs below. You must conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up.

- 2.3.5.1.1.1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

- 2.3.5.1.1.2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

- 2.3.5.1.1.3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- 2.3.5.1.1.4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
- 2.3.5.1.1.5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- 2.3.5.1.1.6. Maintain on-site and submit, if requested by the Administrator, a report containing the information in the following three subparagraphs.
 - 2.3.5.1.1.6.1. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - 2.3.5.1.1.6.2. A description of any corrective actions taken as a part of the tune-up; and
 - 2.3.5.1.1.6.3. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.
- 2.3.5.1.2. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

2.3.6. Notification, Reports, and Records

- 2.3.6.1. You must submit to the Administrator all of the notifications in §63.9 that apply to you by the dates specified.
- 2.3.6.2. As specified in §63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.
- 2.3.6.3. If you are not required to conduct an initial compliance demonstration as specified in §63.7530(a), the Notification of Compliance Status must only contain the information specified in the subparagraphs below and must be submitted within 60 days of the compliance date specified at §63.7495(b).
 - 2.3.6.3.1. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under §241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.
 - 2.3.6.3.2. In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
 - 2.3.6.3.2.1. “This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi).”

2.3.6.3.2.2. “This facility has had an energy assessment performed according to §63.7530(e).”

2.3.6.4. If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in the five subparagraphs below of this section.

2.3.6.4.1. Company name and address.

2.3.6.4.2. Identification of the affected unit.

2.3.6.4.3. Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

2.3.6.4.4. Type of alternative fuel that you intend to use.

2.3.6.4.5. Dates when the alternative fuel use is expected to begin and end.

2.3.6.5. If you have switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

2.3.6.5.1. The name of the owner or operator of the affected source, as defined in §63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

2.3.6.5.2. The currently applicable subcategory under this subpart.

2.3.6.5.3. The date upon which the fuel switch or physical change occurred.

[40 CFR 63.7545]

2.3.6.6. You must submit each report in Table 9 to this subpart that applies to you.

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements		
As stated in §63.7550, you must comply with the following requirements for reports:		
You must submit a	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements in §63.7550(b).
	b. If there are no deviations from the requirements for work practice standards for periods of startup and shutdown in Table 3 to this subpart that apply to you, a statement that there were no deviations from the work practice standards during the reporting period; and	
	c. If you have a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in §63.7550(d); and	

2.3.6.7. For units that are subject only to a requirement to conduct subsequent annual tune-up according to §63.7540(a)(10), and not subject to emission limits or Table 4 operating limits, you may submit only an annual compliance report, as applicable, instead of a semi-annual compliance report.

2.3.6.7.1. For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting annual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the subsequent compliance reports according to the dates the permitting authority has established in the permit.

2.3.6.8. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

2.3.6.8.1. If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in the subparagraphs below.

2.3.6.8.1.1. Company and Facility name and address.

- 2.3.6.8.1.2. Process unit information
 - 2.3.6.8.1.3. Date of report and beginning and ending dates of the reporting period.
 - 2.3.6.8.1.4. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to §63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
 - 2.3.6.8.1.5. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- 2.3.6.9. You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.
- [40 CFR 63.7550]
- 2.3.6.10. You must keep records according to the following two subparagraphs of this section.
- 2.3.6.10.1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

2.3.6.10.2. Records of compliance demonstrations as required in §63.10(b)(2)(viii).

[40 CFR 63.7555]

2.3.6.11. Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

2.3.6.12. As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

2.3.6.13. You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 CFR 63.7560]

2.3.7. Other Requirements and Information

2.3.7.1. Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD		
As stated in §63.7565, you must comply with the applicable General Provisions according to the following:		
Citation	Subject	Applies to subpart DDDDD
§63.1	Applicability	Yes.
§63.2	Definitions	Yes. Additional terms defined in §63.7575
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities and Circumvention	Yes.
§63.5	Preconstruction Review and Notification Requirements	Yes.
§63.6(a), (b)(1)-(b)(5), (b)(7), (c)	Compliance with Standards and Maintenance Requirements	Yes.
§63.6(e)(1)(i)	General duty to minimize emissions.	No. See §63.7500(a)(3) for the general duty requirement.

§63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.
§63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§63.6(g)	Use of alternative standards	Yes, except §63.7555(d)(13) specifies the procedure for application and approval of an alternative timeframe with the PM controls requirement in the startup work practice (2).
§63.6(h)(1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No. See §63.7500(a).
§63.6(h)(2) to (h)(9)	Determining compliance with opacity emission standards	No. Subpart DDDDD specifies opacity as an operating limit not an emission standard.
§63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.
§63.6(j)	Presidential exemption.	Yes.
§63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at §63.7520(a) to (c).
§63.7(e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.
§63.8(c)(1)	Operation and maintenance of CMS	Yes.

§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See §63.7500(a)(3).
§63.8(c)(1)(ii)	Operation and maintenance of CMS	Yes.
§63.8(c)(1)(iii)	Startup, shutdown, and malfunction plans for CMS	No.
§63.8(c)(2) to (c)(9)	Operation and maintenance of CMS	Yes.
§63.8(d)(1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required.
§63.8(e)	Performance evaluation of a CMS	Yes.
§63.8(f)	Use of an alternative monitoring method.	Yes.
§63.8(g)	Reduction of monitoring data	Yes.
§63.9	Notification Requirements	Yes.
§63.10(a), (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See §63.7555(d)(7) for recordkeeping of occurrence and duration and §63.7555(d)(8) for actions taken during malfunctions.
§63.10(b)(2)(iii)	Maintenance records	Yes.
§63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.

§63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§63.10(c)(10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No. See §63.7555(d)(7) for recordkeeping of occurrence and duration and §63.7555(d)(8) for actions taken during malfunctions.
§63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§63.10(c)(15)	Use of startup, shutdown, and malfunction plan	No.
§63.10(d)(1) and (2)	General reporting requirements	Yes.
§63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No. See §63.7550(c)(11) for malfunction reporting requirements.
§63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§63.11	Control Device Requirements	No.
§63.12	State Authority and Delegation	Yes.
§63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9).	Reserved	No.

[40 CFR 63.7565]

3. Tribal Minor New Source Review

3.1. Synthetic Minor New Source Review Permit Requirements [SMNSR-SU-000010-2011.001]

Arkansas Loop and Simpson Treating Plants are subject to the requirements of permit #SMNSR-SU-000010-2011.001. Notwithstanding conditions in this permit, the permittee must comply with all requirements of #SMNSR-SU-000010-2011.001.

3.1.1. Applicability

- 3.1.1.1. This permit is being issued under authority of the MNSR permit program.
- 3.1.1.2. The requirements in this permit have been created, at the Permittee's request, to avoid the requirements of the Prevention of Significant Deterioration Permit Program at 40 CFR Part 52 (PSD) for construction of the Simpson Treating Plant (an otherwise PSD significant modification to the Arkansas Loop Treating Plant).
- 3.1.1.3. Any conditions established for this facility or any specific units at this facility pursuant to any permit issued under PSD or the MNSR permit program shall continue to apply.
- 3.1.1.4. By issuing this permit, the EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner, and/or Operator, if the conditions of this permit are not met by the Permittee, Owner, and/or Operator.

3.1.2. Construction Requirements

- 3.1.2.1. The Permittee may install, maintain and operate the following equipment at the Simpson Treating Plant:

Table 1 – Approved Emission Unit Construction

Two (2) - 1,622 maximum site rated hp, 4SLB operated, natural gas-fired reciprocating internal combustion engines used for electric generation
One (1) - 80 MMBtu/hr, natural gas-fired custom made heat medium heater
One (1) - 100 MMscfd custom made amine plant
Two (2) - 70 MMscfd TEG Dehydration Systems each with 1.2 MMBtu/hr, natural gas-fired TEG reboiler
One (1) - 6,615 gallon inlet coalescing filter dump tank (production water)*
One (1) - 125 gallon heat medium makeup storage tank *
One (1) - 6,615 gallon heat medium pressure safety valve (PSV) blowdown tank *
One (1) - 30 gallon oil tote tank (anti-foam) *
One (1) - 1,575 gallon TEG makeup storage tank*
One (1) - 1,316 gallon still vent tank*
One (1) each 542 gallon coolant tank, coolant maintenance tank, used engine oil tank, engine oil tank*
One (1) each 55 gallon coolant overflow barrel and oil overflow barrel*
One (1) - 1,575 gallon TEG recovery tank*
One (1) - 2,835 gallon process and oily water drain tank*
One (1) - 2,835 gallon oily water sump tank*

*Insignificant emission unit as defined in 40 CFR 71.2

- 3.1.2.2. Only the engines that are operated and controlled as specified in this permit are approved for installation under this permit.

3.1.3. Emission Limits

- 3.1.3.1. Total cumulative volatile organic compound (VOC) emissions from the approved emission units for the Simpson Treating Plant, specified in Table 1 above, shall not exceed 41.6 tons during any consecutive 12 months.
- 3.1.3.2. VOC emissions (to include formaldehyde (CH₂O) and acetaldehyde) from each 1,622 hp 4SLB natural gas-fired engine shall not exceed the following:
 - 3.1.3.2.1. 2.1 pounds per hour (lbs/hr); and
 - 3.1.3.2.2. 9.4 tons per year (tpy).
- 3.1.3.3. CH₂O emissions from each 1,622 hp 4SLB natural gas-fired engine shall not exceed the following:
 - 3.1.3.3.1. 1.4 lbs/hr; and
 - 3.1.3.3.2. 6.3 tpy.
- 3.1.3.4. Emission limits shall apply at all times, unless otherwise specified in this permit.

3.1.4. Control and Operational Requirements

- 3.1.4.1. The Permittee shall ensure that each engine is equipped with an oxidation catalyst control system capable of reducing uncontrolled VOC and CH₂O emissions to meet the emission limits specified in this permit.
- 3.1.4.2. The Permittee shall install, operate and maintain temperature-sensing devices (i.e. thermocouple or resistance temperature detectors) before the catalytic control system on each engine to continuously monitor the exhaust temperature at the inlet of the catalyst bed. Each temperature sensing device shall be calibrated and operated according to manufacturer specifications or equivalent specifications developed by the Permittee or vendor.
- 3.1.4.3. Except during startups, which shall not exceed 30 minutes, the engine exhaust temperature of each engine, at the inlet to the catalyst bed shall be maintained at all times the engines operate with an inlet temperature of at least 550 °F and no more than 1,250 °F.

- 3.1.4.4. During operation the pressure drop across the catalyst bed on each 1,622 hp engine shall be maintained to within ± 2 inches of water from the baseline pressure drop reading taken during the most recent performance test. The baseline pressure drop for the catalyst bed shall be determined at 100% \pm 10% of the engine load measured during the most recent performance test.
- 3.1.4.5. The Permittee shall only fire each 1,622 hp 4SLB engine with natural gas. The natural gas shall be pipeline-quality in all respects except that the carbon dioxide (CO₂) concentration in the gas is not required to be within pipeline-quality.
- 3.1.4.6. The Permittee shall follow, for each 1,622 hp 4SLB engine and its respective catalytic control system, the manufacturer recommended maintenance schedule and procedures, or equivalent maintenance schedule and procedures developed by the Permittee or vendor, to ensure optimum performance of each engine and its respective catalytic control system.
- 3.1.4.7. The Permittee may rebuild an existing permitted engine or replace an existing permitted engine with an engine of the same hp rating and configured to operate in the same manner as the engine being rebuilt or replaced. Any emission limits, requirements, control technologies, testing or other provisions that apply to the permitted engines that are replaced shall also apply to the rebuilt and replaced engines.
- 3.1.4.8. The Permittee may resume operation without the catalytic control system during an engine break-in period, not to exceed 200 operating hours, for rebuilt and replaced engines.

3.1.5. Performance Testing Requirements

- 3.1.5.1. Performance tests shall be conducted on each 1,622 hp 4SLB natural gas-fired engine for measuring VOC, and CH₂O emissions to demonstrate compliance with the emission limits in this permit and establish a baseline percentage of the carbon monoxide (CO) emissions reduction that correlates with the compliance of the VOC and CH₂O emission limits. The performance tests shall be conducted in accordance with appropriate reference methods specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, or an EPA-approved American Society for Testing and Materials (ASTM) method. The Permittee may submit to the EPA a written

request for approval of an alternate test method but shall only use that alternate test method after obtaining approval from the EPA.

- 3.1.5.1.1. The initial performance test shall be conducted within 90 calendar days of startup of a new engine.
- 3.1.5.1.2. Subsequent performance tests shall be conducted within 12 months of the most recent performance test.
- 3.1.5.1.3. Performance tests shall be conducted within 90 calendar days of the replacement of a catalyst on an engine.
- 3.1.5.1.4. Performance tests shall be conducted within 90 calendar days of startup of all rebuilt engines and replaced engines.
- 3.1.5.2. The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, processes, or operational parameters the day of or during the engine testing. Any such tuning or adjustments may result in a determination by the EPA that the test is invalid. Artificially increasing an engine load to meet testing requirements is not considered engine tuning or adjustments.
- 3.1.5.3. The Permittee shall not abort any engine tests that demonstrate non-compliance with the VOC or CH₂O emission limits in this permit.
- 3.1.5.4. Performance tests conducted on each 1,622 hp 4SLB engine shall meet the following requirements:
 - 3.1.5.4.1. Portable analyzer testing shall be conducted at least once during each performance test to establish a new baseline percentage reduction of CO emissions that correlates with compliance of the VOC and CH₂O emission limits.
 - 3.1.5.4.2. The pressure drop across each catalyst bed and the inlet temperature to each catalyst bed shall both be measured and recorded at least once during each performance test to establish a new baseline pressure drop and to demonstrate compliance with the operating temperature limitation of this permit.

- 3.1.5.4.3. All performance tests shall be conducted at a maximum operating rate (90% to 110% of the maximum achievable engine load available at the time of the test). The Permittee may submit to the EPA a written request for approval of an alternate load level for testing but shall only test at that alternative level after obtaining written approval from the EPA.
- 3.1.5.4.4. During each test run, data shall be collected on all parameters necessary to document how VOC and CH₂O emissions, and percent reduction of CO emissions were measured and calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.).
- 3.1.5.4.5. Each test shall consist of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits (lbs/hr) for VOC and CH₂O, and percentage reduction of CO.
- 3.1.5.4.6. Performance test plans shall be submitted to the EPA for approval 60 calendar days prior to the date the test is planned.
- 3.1.5.4.7. Performance test plans that have already been approved by the EPA for the emission units approved in this permit may be used in lieu of new test plans unless the EPA requires the submittal and approval of new test plans. The Permittee may submit new plans for EPA approval at any time.
- 3.1.5.4.8. The test plans shall include and address the following elements:
 - 3.1.5.4.8.1. Purpose of the test;
 - 3.1.5.4.8.2. Engines and catalytic control systems to be tested;
 - 3.1.5.4.8.3. Expected engine operating rate(s) during the test;
 - 3.1.5.4.8.4. Sampling and analysis procedures (sampling locations, test methods, laboratory identification);

- 3.1.5.4.8.5. Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and
- 3.1.5.4.8.6. Data processing and reporting (description of data handling and quality control procedures, report content).
- 3.1.5.4.9. The Permittee shall notify the EPA at least 30 calendar days prior to scheduled performance testing. The Permittee shall notify the EPA at least 1 week prior to scheduled performance testing if the testing cannot be performed.
- 3.1.5.4.10. If a permitted engine is not operating, the Permittee does not need to start up the engine solely to conduct a performance test. The Permittee may conduct the performance test when the engine is started up again.

3.1.6. Monitoring Requirements

- 3.1.6.1. The Permittee shall concurrently measure the flow rate of the acid gas entering the amine plant contactor at the Simpson Treating Plant in MMscf/hr using a flow meter and obtain a laboratory analysis of the CO₂ content of the acid gas entering the amine plant contactor, quarterly at a minimum.
- 3.1.6.2. The Permittee shall continuously monitor the exhaust temperature of each engine at the inlet to each catalyst bed on each 1,622 hp 4SLB engine.
- 3.1.6.3. Except during startups, which shall not exceed 30 minutes, if the engine exhaust temperature at the inlet to the catalyst bed on either 1,622 hp 4SLB natural gas-fired engine deviates from the acceptable ranges specified in this permit, then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.
 - 3.1.6.3.1. Within 24 hours of determining a deviation of the engine exhaust temperature at the inlet to the catalyst bed, the Permittee shall investigate. The investigation shall include testing the temperature sensing device, inspecting the engine for performance problems and assessing the catalytic control system for possible damage that could

affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and fouled, destroyed or poisoned catalyst).

- 3.1.6.3.2. If the engine exhaust temperature at the inlet to the catalyst bed can be corrected by following the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the engine exhaust temperature at the inlet to the catalyst bed within 24 hours of inspecting the engine and catalytic control system.
- 3.1.6.3.3. If the engine exhaust temperature at the inlet to the catalyst bed cannot be corrected using the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system has been damaged, then the affected engine shall cease operating immediately and shall not be returned to routine service until the following has been met:
 - 3.1.6.3.3.1. The engine exhaust temperature at the inlet to the catalyst bed is measured and found to be within the acceptable temperature range for that engine; and
 - 3.1.6.3.3.2. The catalytic control system has been repaired or replaced, if necessary.
- 3.1.6.4. The Permittee shall monitor the pressure drop across the catalyst bed on each 1,622 hp 4SLB engine every 30 days, using pressure sensing devices before and after the catalyst bed to obtain a direct reading of the pressure drop (also referred to as the differential pressure). *[Note to Permittee: Differential pressure measurements, in general, are used to show the pressure across the filter elements. This information will determine when the elements of the catalyst bed are fouling, blocked or blown out and thus require cleaning or replacement.]*
- 3.1.6.5. The Permittee shall perform the first measurement of the pressure drop across the catalyst bed on each engine no more than 30 days from the date of the initial performance test. Thereafter, the Permittee shall measure the pressure drop across the catalyst bed, at a minimum, every 30 days. Subsequent performance tests, as required in this permit, can be used to

meet the periodic pressure drop monitoring requirements provided it occurs within the 30-day window. The pressure drop reading can be a one-time measurement on that day, the average of performance test runs conducted on that day, or an average of all the measurements taken on that day if continuous readings are taken.

3.1.6.6. If the pressure drop reading exceeds ± 2 inches of water from the baseline pressure drop established during the most recent performance test, then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.

3.1.6.6.1. Within 24 hours of determining a deviation of the pressure drop across the catalyst bed, the Permittee shall investigate. The investigation shall include testing the pressure transducers and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and plugged, fouled, destroyed, or poisoned catalyst).

3.1.6.6.2. If the pressure drop across the catalyst bed can be corrected by following the catalytic control system manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the problem within 24 hours of inspecting the catalytic control system.

3.1.6.6.3. If the pressure drop across the catalyst bed cannot be corrected using the catalytic control system manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system is damaged, then the Permittee shall do one of the following:

3.1.6.6.3.1. Conduct a performance test within 90 calendar days, as specified in this permit to ensure that the VOC and CH₂O emission limits are being met, and to re-establish the baseline pressure drop across the catalyst bed. The Permittee shall measure CO emissions and determine the percent reduction using a portable analyzer and a monitoring protocol approved by the EPA to establish a new temporary

pressure drop baseline until a performance test can be scheduled and completed; or

3.1.6.6.3.2. Cease operating the affected engine immediately. The engine shall not be returned to routine service until the pressure drop is measured and found to be within the acceptable pressure range for that engine, as determined from the most recent performance test. Corrective action may include removal and cleaning of the catalyst or replacement of the catalyst.

3.1.6.7. The Permittee shall monitor VOC and CH₂O emissions from the exhaust of the catalytic control system on each 1,622 hp 4SLB engine at least quarterly to demonstrate compliance with the emission limits in this permit. To meet this requirement, the Permittee shall:

3.1.6.7.1. Commence monitoring within 90 days of the Permittee's submittal of initial performance test results for VOC and CH₂O emissions, and the percentage reduction of CO emissions to the EPA; and

3.1.6.7.2. Measure CO emissions and the percentage reduction at the normal operating load using a portable analyzer and a monitoring protocol approved by the EPA as a surrogate to confirming compliance with the VOC and CH₂O emission limits using the baseline correlation established during the most recent performance test or conduct a performance test for VOC and CH₂O emissions as specified in this permit.

[Note to Permittee: The purpose for the option to measure CO emissions and percent reduction using a portable analyzer is to demonstrate VOC and CH₂O emissions reductions on a quarterly basis using CO as a surrogate, as there are currently no EPA-approved protocols for monitoring VOC or CH₂O emissions using a portable analyzer. If the catalyst is operating such that CO is effectively being reduced by at least as much as was measured during the most recent performance test where a correlation between compliance with the VOC and CH₂O emission limits was established, it can be verified that VOC and CH₂O limits are being achieved.]

3.1.6.8. The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or processes or operational parameters on the day of or during measurements. Any such tuning or adjustments may result in a determination by the EPA that the result is

invalid. Artificially increasing an engine load to meet the testing requirements is not considered engine tuning or adjustments.

- 3.1.6.9. For any one (1) engine: If the results of 2 consecutive quarterly portable analyzer measurements for percentage reduction of CO, or VOC and CH₂O performance tests, demonstrate compliance with the VOC and CH₂O emission limits, the required monitoring frequency for VOCs and CH₂O may change from quarterly to semi-annually.
- 3.1.6.10. For any one (1) engine: If the results of any subsequent annual portable analyzer measurements for percentage reduction of CO, or VOC and CH₂O performance tests, demonstrate noncompliance with the VOC or CH₂O emission limits, the required monitoring frequency for VOCs and CH₂O shall change from semi-annually to quarterly.
- 3.1.6.11. The Permittee shall submit portable analyzer specifications and monitoring protocols for to the EPA at the following address for approval at least 45 calendar days prior to the date of initial portable analyzer monitoring:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

- 3.1.6.12. Portable analyzer protocols that have already been approved by the EPA for the emission units approved in this permit may be used in lieu of new protocols unless the EPA requires the submittal and approval of a new protocol. The Permittee may submit a new protocol for EPA approval at any time.
- 3.1.6.13. The Permittee is not required to conduct emissions monitoring of VOC and CH₂O emissions and parametric monitoring of exhaust temperature and catalyst differential pressure on engines that have not operated during the monitoring period. The Permittee shall certify that the engine(s) did not operate during the monitoring period in the annual report specified in this permit.

3.1.7. Emissions Calculations

- 3.1.7.1. Monthly emissions calculations shall be based on the actual average daily emissions for the Simpson Treating Plant for each month.
- 3.1.7.2. VOC emissions from all controlled and uncontrolled emitting units, as specified in Table 1 of this permit, shall be included in the VOC emission calculations, including, but not limited to: the engines, heaters, amine plant TEG dehydrators and reboilers, and liquid storage tanks.
- 3.1.7.3. VOC emissions from the 4SLB natural gas-fired engines shall also include acetaldehyde and CH₂O emissions.
- 3.1.7.4. At the end of the first full calendar month following the initial performance tests for the 1,622 hp 4SLB engines, the Permittee shall calculate the actual VOC emissions, in tons per year (tpy) for the entire Simpson Treating Plant, and the actual VOC and actual CH₂O emissions in tpy from each 4SLB natural gas-fired engine for that month.
- 3.1.7.5. Prior to twelve full months of emission calculations, the Permittee shall, at the end of each calendar month, add the emissions for that month to the calculated emissions for all previous months since the initial tests for the 1,622 hp 4SLB engines and record the total. Thereafter, the Permittee shall, at the end of each month, add the emissions for that month to the calculated emissions for the preceding eleven months and record a new twelve-month total.
- 3.1.7.6. The total VOC emissions for the Simpson Treating Plant, and the VOC and CH₂O emissions for each 1,622 hp 4SLB engine shall be calculated as follows:
 - 3.1.7.6.1. For each 1,622 hp 4SLB engine:
 - 3.1.7.6.1.1. CH₂O emissions shall be calculated by multiplying the most recent performance test results for CH₂O for each engine, in lb/hr by the number of operating hours for the engine for that month and converting to tpy.
 - 3.1.7.6.1.2. Acetaldehyde emissions shall be calculated using the AP-42 emission factor and accompanying conversion formulas

provided in AP 42, Fifth Edition, Volume I Chapter 3: Stationary Internal Combustion Sources, Section 3.2: Natural Gas-Fired Reciprocating Combustion Engines, and the number of operating hours for the engine for that month and converting to tpy.

3.1.7.6.1.3. VOC emissions for the month shall be calculated by multiplying the most recent performance test results for VOC in lbs/hr, by the number of operating hours the engine for that month, adding the calculated CH₂O and acetaldehyde emissions, and converting to tpy.

3.1.7.6.1.4. Monthly emissions calculations shall account for any engine break-in period where the engine was operated without the catalytic control system installed. VOC and CH₂O emissions during break-in periods shall be calculated by multiplying the manufacturer-specified VOC and CH₂O emission factors in lb/hr for an uncontrolled engine by the hours the engine operated without the catalytic control system installed for that month and converting to tpy.

3.1.7.6.2. For the remaining emission units at the Simpson Treating Plant, specified in Table 1 of this permit, except for the units identified as insignificant emission units (IEUs), total VOC emissions for the month shall be calculated as follows and then converted to tons:

3.1.7.6.2.1. For the 80 MMBtu/hr natural gas-fired custom made heat medium heater using the manufacturer-supplied VOC emission factor of 0.019 lb/mmcf, an hourly fuel consumption rate of 88.667 mmcf/hr (based on conservative fuel heat content of 900 Btu/scf), and the operating hours for the calendar month.

3.1.7.6.2.2. For the 100 MMscfd custom made amine plant acid gas vent using the hours the amine plant operated for the month, and the appropriate manufacturer-specified VOC emission factor in lb/hr from Table 2 below, based on the results of the most recent CO₂ content laboratory analysis and the concurrently-measured throughput of the acid gas entering the amine plant contactor at the Simpson Treating Plant. If the results of the

most recent laboratory analysis and measured throughput do not fall within the scenarios below, the Permittee shall use 0.7 lb/hr or obtain new emission factors from the manufacturer and use those factors as appropriate:

Table 2 – Emissions from Amine Plant CO₂ Vent Stack¹

CO₂%	6% Summer²	6% Winter²	6.5% Summer²	6.5% Winter²	8% Summer²	8% Winter²
Gas Through Contactor	100 MMscf/d	100 MMscf/d	88.8 MMscf/d	88.8 MMscf/d	79.2 MMscf/d	79.2 MMscf/d
Total VOC (lb/hr)	0.62	0.69	0.58	0.65	0.59	0.66

¹ Source: Red Cedar's December 20, 2011 Synthetic Minor NSR Permit Application. Emission factors, reported in tpy, are based on CO₂ content laboratory analysis of the acid gas entering the amine plant contactor and have been converted to lb/hr.

² Summer vs. winter distinction based on ambient temperatures of 90° F and 10° F, respectively. Similar to natural gas dehydration units, the amine process is more efficient in colder weather, so more gas can be processed in the winter.

3.1.7.6.2.3. For the two (2) 70 MMscfd TEG dehydration systems, adding the following, calculated as described below:

3.1.7.6.2.3.1. The VOC emissions for each of the two (2) 1.2 MMBtu/hr natural gas-fired TEG reboilers, using: the VOC emission factor of 5.5 lb/MMscf found in AP-42 Fifth Edition, Volume I, Chapter 1: Stationary External Combustion Sources, Section 1.4: Natural Gas Combustion, Table 1.4-2; the hourly fuel consumption rate of 1.667 mmscf/hr (based on conservative fuel heat content of 900 Btu/scf); and the operating hours for the calendar month; and

3.1.7.6.2.3.2. The VOC emissions from each of the TEG dehydration system regenerator still vents and flash tanks, using GRIGlyCalc Version 4.0 or higher.

3.1.7.6.2.4. If data on operating hours is not available for a particular unit for that month, fulltime operation (24 hours per day) for the month shall be assumed.

- 3.1.7.6.3. Total VOC emissions for each of the liquid storage tank IEUs at the Simpson Treating Plant specified in Table 1 of this permit, for each month, shall be 1/12 of the annual emissions estimated in tons using EPA Tanks Version 4.0 or higher.
- 3.1.7.6.4. Subsequent to the initial calculation, emissions of VOC for the Simpson Treating Plant shall be calculated each month, as specified above, except that for calculating VOC and CH₂O emissions from each 1,622 hp 4SLB natural gas-fired engine, results from the most recent performance tests shall be used in the calculation.

3.1.8. **Recordkeeping Requirements**

The Permittee shall keep the following records:

- 3.1.8.1. The total monthly and 12-month consecutive VOC emissions for the Simpson Treating Plant and all information used to calculate the values;
- 3.1.8.2. The total monthly and 12-month consecutive VOC and CH₂O emissions for each 1,622 hp 4SLB natural gas-fired engine and all information used to calculate the values;
- 3.1.8.3. Manufacturer specifications, maintenance requirements, and all documentation pertaining to the development of VOC emission factors for the 100 MMscfd custom-made amine plant.
- 3.1.8.4. Manufacturer and/or equivalent Permittee or vendor specifications and maintenance requirements for each engine, catalytic control system, temperature-sensing device, and pressure-measuring device;
- 3.1.8.5. All calibration and maintenance conducted for each engine, catalytic control system, temperature-sensing device, and pressure-measuring device;
- 3.1.8.6. All temperature measurements on each engine required by this permit, as well as a description of any corrective actions taken pursuant to this permit;
- 3.1.8.7. All pressure drop measurements on each engine required by this permit, as well as a description of any corrective actions taken pursuant to this permit;

- 3.1.8.8. Records sufficient to demonstrate, pursuant to this permit, that the fuel for the engines is pipeline-quality natural gas in all respects, with the exception of the CO₂ concentration in the natural gas;
- 3.1.8.9. The results of all required testing and monitoring in this permit. The records shall include the following:
 - 3.1.8.9.1. The date, place, and time of sampling or measurements;
 - 3.1.8.9.2. The date(s) analyses were performed;
 - 3.1.8.9.3. The company or entity that performed the analyses;
 - 3.1.8.9.4. The analytical techniques or methods used;
 - 3.1.8.9.5. The results of such analyses or measurements; and
 - 3.1.8.9.6. The operating conditions as existing at the time of sampling or measurement;
- 3.1.8.10. All catalyst replacements, engine rebuilds, and engine replacements;
- 3.1.8.11. Each rebuilt or replaced engine break-in period, pursuant to the requirements of this permit, where an existing engine that has been rebuilt or replaced resumes operation without the catalyst control system, for a period not to exceed 200 operating hours; and
- 3.1.8.12. Each time any engine is shut down due to a deviation at the inlet temperature to the catalyst bed or pressure drop across the catalyst bed. The Permittee shall include in the record the cause of the problem, the corrective action taken, and the timeframe for bringing the temperature at the inlet to the catalyst bed or the pressure drop across the catalyst bed back into the range of compliance.

3.1.9. Records Retention

- 3.1.9.1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

- 3.1.9.2. Records shall be kept at the facility or the location that has day-to-day operational control over the facility.

3.1.10. Reporting Requirements

3.1.10.1. Annual Emission Reports

- 3.1.10.1.1. The Permittee shall submit a written annual report of the actual annual emissions from all emission units at the Simpson Treating Plant, including emissions from startups, shutdowns, and malfunctions, each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act compliance for the Permittee.
- 3.1.10.1.2. The report shall include VOC, CH₂O, and CO emissions.
- 3.1.10.1.3. The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to r8AirPermitting@epa.gov.

- 3.1.10.2. Any documents required to be submitted under this permit, with the exception of the Annual Emission Reports, shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Documents may be submitted electronically to r8AirReportEnforcement@epa.gov.

- 3.1.10.3. The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements, a description of the probable cause of such deviations, and any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via electronic mail to r8AirReportEnforcement@epa.gov as follows:
- 3.1.10.3.1. Within 30 days from the discovery of any deviation of the emission limits or operational limits that is left un-corrected for more than 5 days after discovering the deviation; and
- 3.1.10.3.2. By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the emission limits.
- 3.1.10.4. The Permittee shall submit a written report for any required performance test to the EPA Regional Office within 60 days after completing the tests.
- 3.1.10.5. The Permittee shall submit any record or report required by this permit upon EPA request.

3.2. Minor New Source Review Permit Requirements [MNSR-SU-000010-2014.002]

Arkansas Loop and Simpson Treating Plants are subject to the requirements of permit #MNSR-SU-000010-2014.002. Notwithstanding conditions in this permit, the permittee must comply with all requirements of permit #MNSR-SU-000010-2014.002.

3.2.1. Applicability

- 3.2.1.1. This Conditional Permit to Construct is being issued under authority of the MNSR Permit Program.
- 3.2.1.2. Any conditions for this facility or any specific units at this facility established pursuant to any permit to construct issued under the authority of the Prevention of Significant Deterioration Permit Program at 40 CFR Part 52 (PSD) or the MNSR permit program shall continue to apply.
- 3.2.1.3. By issuing this permit, the EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner, and/or Operator, if the conditions of this permit are not met by the Permittee, Owner, and/or Operator.

3.2.2. Construction and Operational Requirements

- 3.2.2.1. The Permittee may install, operate, and maintain no more than two (2) reciprocating internal combustion engines for natural gas compression, each meeting the following specifications:
 - 3.2.2.1.1. Operated as a 4-stroke lean-burn engine;
 - 3.2.2.1.2. Fired with natural gas; and
 - 3.2.2.1.3. Limited to a maximum site rating of 1,767 hp.
- 3.2.2.2. Only the engines that are operated and controlled as specified in this permit are approved for installation under this permit.

3.2.3. Emission Limits

- 3.2.3.1. Emissions from each engine shall not exceed the following:
 - 3.2.3.1.1. Nitrogen oxides (NO_x): 1.0 grams per horsepower-hour (g/hp-hr);
 - 3.2.3.1.2. Carbon monoxide (CO): 2.0 g/hp-hr;
 - 3.2.3.1.3. Volatile organic compounds (VOCs): 0.7 g/hp-hr.
- 3.2.3.2. Emission limits shall apply at all times, unless otherwise specified in this permit.

3.2.4. Control and Operational Requirements

- 3.2.4.1. In the event that an engine cannot meet the emission limits specified in this permit without emission controls, the engine shall be equipped with an air-to-fuel ratio (AFR) and/or catalytic control system that is capable of reducing the mass content of uncontrolled emissions to meet the emission limits specified in this permit.
- 3.2.4.2. AFR Control Systems: If an AFR control system is used to meet the emission limits specified in this permit, then the Permittee shall replace the

oxygen (O₂) sensor on the AFR controller within every 2,190 hours of engine run time.

3.2.4.3. Catalytic Control Systems: If a catalytic control system is used to meet the emission limits specified in this permit, then the following requirements shall be met:

3.2.4.3.1. The Permittee shall install, operate, and maintain one of the following:

3.2.4.3.1.1. Temperature-sensing devices (i.e., thermocouple or resistance temperature detectors) before the catalytic control system on each engine to continuously monitor the exhaust temperature at the inlet of the catalyst bed. Each temperature-sensing device shall be calibrated and operated according to manufacturer specifications; or

3.2.4.3.1.2. Equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1,350 °F.

3.2.4.3.2. Except during startups, which shall not exceed 30 minutes, the engine exhaust temperature of the engine at the inlet to each catalyst bed shall be maintained at all times the engine operates at no less than 450 °F and no more than 1,350 °F.

3.2.4.3.3. During operation, the pressure drop across the catalyst bed on each engine shall be maintained to within ± 2 inches of water from the baseline pressure drop measured during the initial performance test, or the most recent performance test following replacement of the catalyst on an engine, if applicable. The baseline pressure drop for the catalyst bed shall be determined at 100% \pm 10% of the engine load measured during the most recent performance test.

3.2.4.4. The Permittee shall only fire each engine with natural gas. The natural gas shall be pipeline-quality in all respects except that the carbon dioxide (CO₂) concentration in the gas is not required to be within pipeline-quality.

3.2.4.5. The Permittee shall follow, for each engine and any respective emission control system, the manufacturer recommended maintenance schedule and procedures, or equivalent procedures developed by the Permittee or vendor,

to ensure optimum performance of each engine and any respective emission control system.

- 3.2.4.6. The Permittee may rebuild or replace an existing permitted engine with an engine of the same hp rating and configured to operate in the same manner as the engine being rebuilt or replaced. Any emission limits, requirements, control technologies, testing or other provisions that apply to the permitted engines that are replaced shall also apply to the rebuilt and replaced engines.
- 3.2.4.7. The Permittee may resume operation without any necessary control system, during an engine break-in period, not to exceed 200 operating hours, for rebuilt and replaced engines.

3.2.5. Performance Testing Requirements

- 3.2.5.1. Performance tests shall be conducted on each engine for measuring NO_x, CO, and VOC, to demonstrate compliance with the emission limits in this permit. The performance tests shall be conducted in accordance with appropriate reference methods specified in 40 CFR Part 60, Appendix A, or an EPA-approved American Society for Testing and Materials (ASTM) method. The Permittee may submit to the EPA a written request for approval of an alternate test method but shall only use that alternate test method after obtaining written approval from the EPA.
 - 3.2.5.1.1. The initial performance test shall be conducted within 90 calendar days of startup of a new engine.
 - 3.2.5.1.2. Subsequent performance tests for VOC emissions shall be conducted within 12 months of the most recent performance test.
 - 3.2.5.1.3. Performance tests shall be conducted within 90 calendar days of replacement of the catalyst on an engine.
 - 3.2.5.1.4. Performance tests shall be conducted within 90 calendar days of startup of all rebuilt and replaced engines.
- 3.2.5.2. All performance tests conducted on each engine shall meet the following requirements:

- 3.2.5.2.1. All tests shall be performed at a maximum operating rate (90% to 110% of the maximum achievable engine load available at the time of the test). The Permittee may submit to the EPA a written request for approval of an alternate load level for testing but shall only test at that alternative level after obtaining written approval from the EPA.
- 3.2.5.2.2. All performance tests for NO_x and CO emissions on each engine shall be performed simultaneously.
- 3.2.5.2.3. During each test run, data shall be collected on all parameters necessary to document how NO_x, CO, and VOC emissions were measured and calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.).
- 3.2.5.2.4. Each test shall consist of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits (g/hp-hr) in this permit.
- 3.2.5.2.5. The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or process or operational parameters the day of or during the engine testing. Any such tuning or adjustments may result in a determination by the EPA that the test is invalid. Artificially increasing an engine load to meet testing requirements is not considered engine tuning or adjustments.
- 3.2.5.2.6. The Permittee shall not abort any engine tests that demonstrate non-compliance with the emission limits in this permit.
- 3.2.5.2.7. Catalytic Control Systems: If a catalytic control system is used to meet the emission limits in this permit, the pressure drop across each catalyst bed and the inlet temperature to each catalyst bed shall be measured and recorded at least once per test to demonstrate compliance with the operating limitations of this permit.
- 3.2.5.2.8. Performance test plans shall be submitted to the EPA for approval 60 calendar days prior to the date the test is planned.

3.2.5.2.9. The test plans shall include and address the following elements:

3.2.5.2.9.1. Purpose of the test;

3.2.5.2.9.2. Engines, and oxidation catalysts if applicable, to be tested;

3.2.5.2.9.3. Expected engine operating rate(s) during test;

3.2.5.2.9.4. Sampling and analysis procedures (sampling locations, test methods, laboratory identification);

3.2.5.2.9.5. Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and

3.2.5.2.9.6. Data processing and reporting (description of data handling and quality control procedures, report content).

3.2.5.2.10. The Permittee shall notify the EPA at least 30 calendar days prior to scheduled performance testing. The Permittee shall notify the EPA at least 1 week prior to scheduled performance testing if the testing cannot be performed.

3.2.5.2.11. If a permitted engine is not operating, the Permittee does not need to start up the engine solely to conduct a performance test. The Permittee may conduct the performance test when the engine is started up again.

3.2.6. Monitoring Requirements

3.2.6.1. The Permittee shall monitor NO_x and CO emissions from each engine, at least quarterly to indicate compliance with the emission limits in this permit. To meet this requirement, the Permittee shall:

3.2.6.1.1. Measure NO_x and CO emissions, at the normal operating load using a portable analyzer and a monitoring protocol approved by the EPA or conduct a performance test as specified in this permit;

3.2.6.1.2. Measure NO_x and CO emissions simultaneously;

- 3.2.6.1.3. Commence monitoring within 90 days of the Permittee's submittal of initial performance test results for NO_x and CO emissions to the EPA.
- 3.2.6.2. For any one (1) engine: If the results of 2 consecutive quarterly portable analyzer measurements demonstrate compliance with the NO_x and CO emission limits in this permit, the required monitoring frequency may change from quarterly to semi-annually.
- 3.2.6.3. For any one (1) engine: If the results of any subsequent semi-annual portable analyzer measurements for NO_x or CO demonstrate non-compliance with the NO_x and/or CO emission limits in this permit, the required monitoring frequency shall revert from semi-annually back to quarterly.
- 3.2.6.4. The Permittee shall submit portable analyzer specifications and a monitoring protocol to the EPA at the following address for approval at least 45 calendar days prior to the date of initial portable analyzer monitoring.

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

- 3.2.6.5. The Permittee may submit a new portable analyzer protocol for EPA approval at any time.
- 3.2.6.6. Catalytic Control Systems: If a catalytic control system is used to meet the emission limits specified in this permit, then the following monitoring requirements shall be met:
- 3.2.6.6.1. The Permittee shall monitor the exhaust temperature of each engine at the inlet to the catalyst bed.
- 3.2.6.6.2. Except during startups, which shall not exceed 30 minutes, if the engine's exhaust temperature at the inlet to the catalyst bed deviates from the acceptable ranges specified in this permit, then the following actions shall be taken. The Permittee's completion of any

or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.

- 3.2.6.6.2.1. Within 24 hours of determining a deviation of the engine exhaust temperature at the inlet to the catalyst bed, the Permittee shall investigate. The investigation shall include testing the temperature sensing device, inspecting the engine for performance problems and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and fouled, destroyed or poisoned catalyst).
- 3.2.6.6.2.2. If the engine exhaust temperature at the inlet to the catalyst bed can be corrected by following the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the engine exhaust temperature at the inlet to the catalyst bed within 24 hours of inspecting the engine and catalytic control system.
- 3.2.6.6.2.3. If the engine exhaust temperature at the inlet to the catalyst bed cannot be corrected using the engine manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system has been damaged, then the affected engine shall cease operating immediately and shall not be returned to routine service until the following has been met:
 - 3.2.6.6.2.3.1. The engine exhaust temperature at the inlet to the catalyst bed is measured and found to be within the acceptable range for that engine; and
 - 3.2.6.6.2.3.2. The catalytic control system has been repaired or replaced, if necessary.
- 3.2.6.6.3. The Permittee shall monitor the pressure drop across the catalyst bed on each engine every 30 days, using pressure sensing devices before and after the catalyst bed to obtain a direct reading of the pressure drop (also referred to as the differential pressure). *[Note to*

Permittee: Differential pressure measurements, in general, are used to show the pressure across the filter elements. This information will determine when the elements of the catalyst bed are fouling, blocked or blown out and thus require cleaning or replacement.]

- 3.2.6.6.4. The Permittee shall perform the first measurement of the pressure drop across the catalyst bed no more than 30 calendar days from the date of the initial performance test. Thereafter, the Permittee shall measure the pressure drop across the catalyst bed, at a minimum, every 30 calendar days. Subsequent performance tests, as required in this permit, can be used to meet the periodic pressure drop monitoring requirements provided it occurs within the 30-day window. The pressure drop reading can be a one-time measurement on that day, the average of performance test runs conducted on that day, or an average of all the measurements taken on that day if continuous readings are taken.
- 3.2.6.6.5. If the pressure drop exceeds ± 2 inches of water from the baseline pressure drop established during the initial performance test or most recent performance test following replacement of the catalyst in an engine, then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.
 - 3.2.6.6.5.1. Within 24 hours of determining a deviation of the pressure drop across the catalyst bed, the Permittee shall investigate. The investigation shall include testing the pressure transducers and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and plugged, fouled, destroyed, or poisoned catalyst).
 - 3.2.6.6.5.2. If the pressure drop across the catalyst bed can be corrected by following the catalytic control system manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee

shall correct the problem within 24 hours of inspecting the catalytic control system.

3.2.6.6.5.3. If the pressure drop across the catalyst bed cannot be corrected using the catalytic control system manufacturer recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system is damaged, then the Permittee shall do one of the following:

3.2.6.6.5.3.1. Conduct a performance test within 90 calendar days, as specified in this permit to ensure that the emission limits are being met. The Permittee shall perform a portable analyzer test to indicate compliance with the emission limits in this permit until a performance test can be scheduled and completed; or

3.2.6.6.5.3.2. Cease operating the affected engine immediately. The engine shall not be returned to routine service until the pressure drop is measured and found to be within the acceptable pressure range for that engine, as determined from the most recent performance test. Corrective action may include removal and cleaning of the catalyst or replacement of the catalyst.

3.2.6.7. The Permittee is not required to conduct emissions monitoring, and parametric monitoring of engine exhaust temperature and catalyst differential pressure, if applicable, on engines that have not operated during the monitoring period. The Permittee shall certify that the engine(s) did not operate during the monitoring period in the annual report.

3.2.7. Recordkeeping Requirements

The Permittee shall keep the following records:

3.2.7.1. The total monthly and 12-month consecutive NO_x, CO and VOC emissions from each engine and all information used to calculate the values;

- 3.2.7.2. Manufacturer, Permittee, or vendor specifications for each engine, AFR controller, catalytic control system, temperature-sensing device, and pressure-measuring device, as applicable;
- 3.2.7.3. All calibration and maintenance conducted for each engine, AFR controller, catalytic control system, temperature-sensing device, and pressure-measuring device, as applicable;
- 3.2.7.4. All temperature measurements on each engine with a catalytic control system, as well as a description of any corrective actions taken pursuant to this permit;
- 3.2.7.5. All pressure drop measurements on each engine with a catalytic control system, as well as a description of any corrective actions taken pursuant to this permit;
- 3.2.7.6. Records sufficient to demonstrate, pursuant to this permit, that the fuel for the engines is pipeline-quality natural gas in all respects, with the exception of the CO₂ concentration in the natural gas;
- 3.2.7.7. The results of all required testing and monitoring in this permit. The records shall include the following:
 - 3.2.7.7.1. The date, place, and time of sampling or measurements;
 - 3.2.7.7.2. The date(s) analyses were performed;
 - 3.2.7.7.3. The company or entity that performed the analyses;
 - 3.2.7.7.4. The analytical techniques or methods used;
 - 3.2.7.7.5. The results of such analyses or measurements; and
 - 3.2.7.7.6. The operating conditions as existing at the time of sampling or measurement;
- 3.2.7.8. All catalyst replacements, engine rebuilds, and engine replacements;
- 3.2.7.9. Each rebuilt or replaced engine break-in period, pursuant to the requirements of this permit, where an existing engine with a catalytic

control system that has been rebuilt or replaced resumes operation without the catalytic control system, for a period not to exceed 200 hours; and

- 3.2.7.10. Each time any engine with a catalytic control system is shut down due to a deviation at the inlet temperature to the catalyst bed or pressure drop across the catalyst bed. The Permittee shall include in the record the cause of the problem, the corrective action taken, and the timeframe for bringing the temperature at the inlet to the catalyst bed or the pressure drop across the catalyst bed back into the range of compliance.

3.2.8. Records Retention

- 3.2.8.1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.
- 3.2.8.2. Records shall be kept at the facility or the location that has day-to-day operational control over the facility.

3.2.9. Reporting Requirements

3.2.9.1. Annual Emission Reports

- 3.2.9.1.1. The Permittee shall submit an annual report of the actual annual emissions from all emission units at the facility covered under this permit, including emissions from startups, shutdowns, and malfunctions, each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act compliance for the Permittee.
- 3.2.9.1.2. The report shall include NO_x, CO, and VOC emissions.
- 3.2.9.1.3. The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to r8AirPermitting@epa.gov.

- 3.2.9.2. Any documents required to be submitted under this permit, with the exception of the Annual Emission Reports, shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Documents may be submitted electronically to r8AirReportEnforcement@epa.gov.

- 3.2.9.3. The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements and a description of any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via electronic mail to r8AirReportEnforcement@epa.gov as follows:

3.2.9.3.1. Within 30 days from the discovery of any deviation of the emission limits or operational limits that is left un-corrected for more than 5 days after discovering the deviation; and

3.2.9.3.2. By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the emission limits.

- 3.2.9.4. The Permittee shall submit a report for any required performance test to the EPA Regional Office within 60 days after completing the tests.

- 3.2.9.5. The Permittee shall submit any record or report required by this permit upon EPA request.

3.3. Synthetic Minor New Source Review Permit Requirements [SMNSR-SU-000010-2019.004

Arkansas Loop and Simpson Treating Plants are subject to the requirements of permit #SMNSR-SU-000010-2019.004. Notwithstanding conditions in this permit, the permittee must comply with all requirements of permit #SMNSR-SU-000010-2019.004.

3.3.1. Applicability

- 3.3.1.1. This permit is being issued under authority of the MNSR Permit Program.
- 3.3.1.2. The requirements in this permit have been created, at the Permittee's request, to establish legally and practically enforceable restrictions for limiting benzene TEG dehydration unit emissions.
- 3.3.1.3. Any conditions established for this facility or any specific units at this facility pursuant to any permit issued under the authority of the Prevention of Significant Deterioration (PSD) Permit Program or the MNSR Permit Program shall continue to apply.
- 3.3.1.4. By issuing this permit, the EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner and/or Operator, if the conditions of this permit are not met by the Permittee, Owner and/or Operator.

3.3.2. Requirements for TEG Dehydration Units

3.3.2.1. Construction and Operational Limits:

- 3.3.2.1.1. The Permittee shall install and operate emissions controls as specified in this permit on three (3) TEG natural gas dehydration units operating at the Arkansas Loop Treating Plant and meeting the following specifications:
 - 3.3.2.1.1.1. Limited to a maximum throughput of 37 million standard cubic feet per day (MMscfd) of natural gas;
 - 3.3.2.1.1.2. Each equipped with no more than one (1) natural gas-fired TEG reboiler with a maximum rated heat input of 0.6 million British thermal units per hour (MMBtu/hr); and

- 3.3.2.1.1.3. Each equipped with no more than three (3) TEG recirculation pumps limited to a maximum combined pump rate of 9.0 gallons per minute (gpm).
- 3.3.2.1.2. The Permittee shall install and operate emissions controls as specified in this permit on one (1) TEG natural gas dehydration unit operating at the Arkansas Loop Treating Plant and meeting the following specifications:
 - 3.3.2.1.2.1. Limited to a maximum throughput of 30 MMscfd of natural gas;
 - 3.3.2.1.2.2. Equipped with no more than one (1) natural gas-fired TEG reboiler with a maximum rated heat input of 0.6 MMBtu/hr; and
 - 3.3.2.1.2.3. Equipped with no more than three (3) TEG recirculation pumps limited to a maximum combined pump rate of 9.0 gpm.
- 3.3.2.1.3. The Permittee shall install and operate emissions controls as specified in this permit on two (2) TEG natural gas dehydration units operating at the Simpson Treating Plant and meeting the following specifications:
 - 3.3.2.1.3.1. Limited to a maximum throughput of 70 MMscfd of natural gas;
 - 3.3.2.1.3.2. Each equipped with no more than one (1) natural gas-fired TEG reboiler with a maximum rated heat input of 1.2 MMBtu/hr; and
 - 3.3.2.1.3.3. Each equipped with no more than two (2) TEG recirculation pumps limited to a maximum combined pump rate of 30.0 gpm.
- 3.3.2.1.4. Only the TEG natural gas dehydration units that are operated and controlled as specified in this permit are approved for installation and operation under this permit.

- 3.3.2.2. Emissions Limits: Actual average emissions of benzene from the process vents to the atmosphere for each of the TEG dehydration units covered under this permit shall be reduced to a level less than 0.90 megagrams (Mg), or 1.0 ton, in any consecutive 12-month period. The emissions limits shall apply at all times.
- 3.3.2.3. Emissions Calculation Requirements: The Permittee shall meet the following requirements for each of the six (6) TEG dehydration units:
- 3.3.2.3.1. Actual average benzene emissions shall be calculated, in Mg and tons, and recorded at the end of each month, beginning with the first calendar month that this permit is effective.
 - 3.3.2.3.2. Prior to 12 full months of benzene emissions calculations, the Permittee shall, within 7 calendar days of the end of each month, add the emissions for that month to the calculated emissions for all previous months since the effective date of the permit and record the total. Thereafter, the Permittee shall, within 7 calendar days of the end of each month, add the emissions for that month to the calculated emissions for the preceding 11 months and record a new 12-month total.
 - 3.3.2.3.3. Actual average benzene emissions shall be calculated using a generally accepted simulation model or software (examples include ProMax and GRI-GLYCalcTM Version 4.0 or higher). Inputs to the model shall be representative of actual average monthly operating conditions of each TEG dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).
- 3.3.2.4. Control and Operational Requirements: The Permittee shall meet the following requirements for each of the six (6) TEG dehydration units:
- 3.3.2.4.1. The Permittee shall route all emissions from the still vent through a closed-vent system to a condenser and then to the TEG reboiler, introduced into the TEG reboiler with the primary fuel. Both the condenser and TEG reboiler shall be designed and operated as specified in this permit.

- 3.3.2.4.2. The Permittee shall design, install, continuously operate and maintain a condenser on the TEG dehydration unit to reduce the temperature of the still vent emissions and drop water out of the gas stream. The Permittee shall ensure that the minimum operating temperature of the condenser is no less than 76.0 degrees Celsius (°C) or 168.0 degrees Fahrenheit (°F).
- 3.3.2.4.3. The Permittee shall design, install, continuously operate and maintain a reboiler on the TEG dehydration unit that reduces benzene in the still vent emissions introduced to it with the primary fuel are reduced to less than 0.90 Mg, or 1 ton, in any consecutive 12- month period.
- 3.3.2.4.4. The Permittee shall ensure that the TEG reboiler is:
 - 3.3.2.4.4.1. Operated properly at all times that still vent emissions are routed to it;
 - 3.3.2.4.4.2. Operated such that the still vent stream is introduced into the combustion zone with the primary fuel; and
 - 3.3.2.4.4.3. Operated such that there is a flame in the combustion zone at all times that still vent emissions are routed to it.
- 3.3.2.4.5. The Permittee shall design, install, continuously operate and maintain the closed-vent system such that it is compliant with the following requirements:
 - 3.3.2.4.5.1. The closed-vent system shall route all gases, vapors and fumes emitted from the still vent to the condenser and then the TEG reboiler, introduced with the primary fuel;
 - 3.3.2.4.5.2. All vent lines, connections, fittings, valves, relief valves or any other appurtenance employed to contain and collect gases, vapors and fumes and transport them to the condenser and combustion device shall be maintained and operated during any time that equipment is operating;
 - 3.3.2.4.5.3. The closed-vent system shall be designed to operate with no detectable emissions;

- 3.3.2.4.5.4. If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors or fumes from entering the condenser and then the TEG reboiler with the primary fuel, the Permittee shall meet the one of following requirements for each bypass device:
- 3.3.2.4.5.4.1. At the inlet to the bypass device that could divert the stream away from the condenser or combustion device and into the atmosphere, properly install, calibrate, maintain and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the condenser or combustion device and into the atmosphere; or
- 3.3.2.4.5.4.2. Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration;
- 3.3.2.4.5.5. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines and safety devices are not subject to the bypass requirements of the paragraph above; and
- 3.3.2.4.5.6. The Permittee shall minimize leaks of hydrocarbon emissions from all vent lines, connections, fittings, valves, relief valves or any other appurtenance employed to contain, collect and transport gases, vapors and fumes to the condenser and combustion device.
- 3.3.2.4.6. The Permittee shall install, calibrate, operate and maintain an electronically controlled temperature monitoring device on the condenser of each TEG dehydration unit that continuously measures the operating temperature of the gas stream exiting the condenser in °C or °F, such as a thermocouple and data logger. The temperature monitoring device shall be installed at a location in the exhaust vent stream from the condenser. The temperature monitoring device shall

have a minimum accuracy of ± 2.0 percent of the temperature being monitored in degrees $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater.

- 3.3.2.4.7. The Permittee shall install, calibrate, operate and maintain an electronically controlled device that detects the presence of a flame in the combustion chamber of the TEG reboiler of each TEG dehydration unit. The device shall be capable of measuring and recording the flame signal strength to verify the presence of a flame in the combustion zone, as specified in Condition I.C.6.(c) of permit #SMNSR-SU-000010-2019.004.
- 3.3.2.4.8. The Permittee shall follow the manufacturer's recommended maintenance schedule and operational procedures to ensure optimum performance of the TEG dehydration unit, including the closed-vent system, condenser and TEG reboiler.
- 3.3.2.5. Testing Requirements: The Permittee shall obtain an extended wet gas analysis of the inlet wet gas stream to the TEG dehydration processes of each of the two (2) plants (Arkansas Loop and Simpson) at least twice per calendar year, with no more than 6 months separating each sampling event. The samples shall be taken from the inlet to one of the TEG dehydration units at each plant. The Permittee shall ensure that any two consecutive semi-annual samples at a plant are not taken from the inlet to the same TEG dehydration unit. The analysis shall include the inlet gas temperature and pressure at which the sample was taken.
- 3.3.2.6. Monitoring Requirements: The Permittee shall meet the following requirements for each of the six (6) TEG dehydration units:
 - 3.3.2.6.1. Except as provided in Condition I.C.6(a)(vi) and Condition I.C.6(a)(vii) paragraphs below of permit #SMNSR-SU-000010-2019.004, the Permittee shall inspect the closed-vent system according to the following procedures and schedule:
 - 3.3.2.6.1.1. For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two (2) sections of hard piping or a bolted and gasketed ducting flange), the Permittee shall:

- 3.3.2.6.1.1.1. Conduct an initial inspection according to the procedures specified in Condition I.C.6(a)(iv) paragraph below of permit #SMNSR-SU-000010-2019.004 to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in Condition I.E.1 of permit #SMNSR-SU-000010-2019.004; and
- 3.3.2.6.1.1.2. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes or gaps in piping; loose connections; or broken or missing caps or other closure devices. The Permittee shall monitor a component or connection using the procedures in Condition I.C.6(a)(iv) below of permit #SMNSR-SU-000010-2019.004 to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. Inspection results shall be submitted in the Periodic Report as specified in Condition I.E.2 of permit #SMNSR-SU-000010-2019.004.
- 3.3.2.6.1.2. For closed-vent system components other than those specified in the section above, the Permittee shall:
 - 3.3.2.6.1.2.1. Conduct an initial inspection according to the procedures specified in the Condition I.C.6(a)(iv) below of permit #SMNSR-SU-000010-2019.004 to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in Condition I.E.1 of permit #SMNSR-SU-000010-2019.004; and
 - 3.3.2.6.1.2.2. Conduct annual inspections according to the procedures specified in the Condition I.E.1 below of permit #SMNSR-SU-000010-2019.004 to demonstrate that the components or connections operate with no detectable emissions. Inspection

results shall be submitted in the Periodic Report as specified in Condition I.E.2 of permit #SMNSR-SU-000010-2019.004.

3.3.2.6.1.2.3. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes or gaps in ductwork; loose connections; or broken or missing caps or other closure devices. Inspection results shall be submitted in the Periodic Report as specified in Condition I.E.2 of permit #SMNSR-SU-000010-2019.004.

3.3.2.6.1.3. For each bypass device, except as provided for in the Condition I.C.4.(e)(v) above of permit #SMNSR-SU-000010-2019.004, the Permittee shall either:

3.3.2.6.1.3.1. At the inlet to the bypass device that could divert the stream away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or

3.3.2.6.1.3.2. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.

3.3.2.6.1.4. No detectable emissions test procedure:

3.3.2.6.1.4.1. The no detectable emissions test procedure shall be conducted in accordance with EPA Method 21 at 40 CFR part 60, appendix A.

3.3.2.6.1.4.2. The detection instrument shall meet the performance criteria of EPA Method 21 at 40 CFR part 60, appendix A, except that the instrument response

factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the fluid and not for each individual compound in the stream.

3.3.2.6.1.4.3. The detection instrument shall be calibrated before use on each day of its use by the procedures specified in EPA Method 21 at 40 CFR part 60, appendix A.

3.3.2.6.1.4.4. Calibration gases shall be as follows:

3.3.2.6.1.4.4.1. Zero (0) air (less than 10 parts per million by volume (ppmv) hydrocarbon in air); and

3.3.2.6.1.4.4.2. A mixture of methane in air at a concentration less than 10,000 ppmv.

3.3.2.6.1.4.5. The Permittee may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If the Permittee chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in section 8.3.2 of EPA Method 21 at 40 CFR part 60, appendix A.

3.3.2.6.1.4.5.1. Except as provided in the paragraph below, the detection instrument shall meet the performance criteria of EPA Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 8.1.1.2 of EPA Method 21 shall be for the average composition of the process fluid, not each individual VOC in the stream. For process streams that contain nitrogen, air, or other inert gases that are not organic HAP or VOC, the average stream response factor shall be calculated on an inert-free basis.

3.3.2.6.1.4.5.2. If no instrument is available at the facility that will meet the performance criteria specified

in the paragraph above, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in the paragraph above.

3.3.2.6.1.4.6. The Permittee must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in either of the subparagraphs below.

3.3.2.6.1.4.6.1. If the Permittee chooses not to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in Condition I.6.(a)(iv)(E) above of permit #SMNSR-SU-000010-2019.004 is compared with the applicable value for the potential leak interface as specified in Condition I.6.(a)(iv)(H) below of permit #SMNSR-SU-000010-2019.004.

3.3.2.6.1.4.6.2. If the Permittee chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in Condition I.6.(a)(iv)(E) above of permit #SMNSR-SU-000010-2019.004 is compared with the applicable value for the potential leak interface as specified in Condition I.6.(a)(iv)(H) below.

3.3.2.6.1.4.7. A potential leak interface is determined to operate with no detectable organic emissions if the organic

concentration value determined in Condition I.6.(a)(iv)(G) above of permit #SMNSR-SU-000010-2019.004, is less than 500 parts per million by volume.

3.3.2.6.1.5. In the event that a leak or defect is detected, the Permittee shall repair the leak or defect as soon as practicable, except as provided in Condition I.6.(a)(vi) below of permit #SMNSR-SU-000010-2019.004.

3.3.2.6.1.5.1. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

3.3.2.6.1.5.2. Repair shall be completed no later than 15 calendar days after the leak is detected.

3.3.2.6.1.6. Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as means for purposes including, but not limited to, periodic maintenance, replacement of equipment or repair, the cessation of operation of a TEG dehydration unit, or other affected source under 40 CFR part 60, subpart HH, or equipment required or used solely to comply with subpart HH or if the Permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.

3.3.2.6.1.7. Any parts of the closed-vent system that are designated, as described in Condition I.6.(a)(vii)(A) and (B) below of permit #SMNSR-SU-000010-2019.004, as unsafe to inspect are exempt from the inspection requirements of Condition I.6.(a)(i), (ii), and (iii) above of permit #SMNSR-SU-000010-2019.004 if:

3.3.2.6.1.7.1. The Permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with Condition

I.6.(a)(i), (ii), and (iii) above of permit #SMNSR-SU-000010-2019.004; and

3.3.2.6.1.7.2. The Permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

3.3.2.6.1.8. Any parts of the closed-vent system that are designated, as described in Condition I.6.(a)(viii)(A) and (B) below of permit #SMNSR-SU-000010-2019.004, as difficult to inspect are exempt from the inspection requirements of the paragraphs referring to Condition I.6.(a)(i), (ii), and (iii) above of permit #SMNSR-SU-000010-2019.004 if:

3.3.2.6.1.8.1. The Permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

3.3.2.6.1.8.2. The Permittee has a written plan that requires inspection of the equipment at least once every 5 years.

3.3.2.6.2. The Permittee shall continuously monitor and record the temperature of the condenser output to ensure the operating temperature of the condenser does not fall below the minimum temperature specified in the permit. The temperature monitoring device shall record temperature data at least once every hour that the TEG dehydration unit is operating. The temperature monitoring device shall be inspected on a monthly basis to ensure proper operation and maintenance per the manufacturer's specifications.

3.3.2.6.3. The Permittee shall monitor the TEG reboiler to confirm proper operation as follows:

3.3.2.6.3.1. Inspect the TEG reboiler on a monthly basis to ensure proper operation according to the manufacturer's specified operation maintenance recommendations;

- 3.3.2.6.3.2. The combustion zone flame indicating device shall measure and record the flame signal strength to verify the presence of a flame in the combustion zone, at a minimum, once per calendar day. If the device records the signal strength more than once per day, the average of all readings for that calendar day shall be calculated and recorded;
- 3.3.2.6.3.3. The combustion zone flame indicating device shall be inspected on a monthly basis to ensure proper operation per the manufacturer's specifications. Proper operation of the combustion zone flame indicating device shall be determined based on the optimum flame signal strength range as specified by the manufacturer; and
- 3.3.2.6.3.4. The TEG reboiler shall be equipped and operated with a device that alerts the control room of the plant and automatically shuts down the TEG dehydration unit if the TEG reboiler flame signal strength deviates from the optimum range specified by the manufacturer. Records of the daily flame signal strength shall be used to verify proper operation of the automatic shut-down device.
- 3.3.2.6.4. The Permittee shall operate and maintain a meter that continuously measures the natural gas flowrate from the TEG dehydration units. The meter shall be inspected on a monthly basis to ensure proper operation per the manufacturer's specifications.
- 3.3.2.6.5. The Permittee shall convert monthly natural gas flowrate to a daily average by dividing the monthly flowrate by the number of days in the month that the TEG dehydration unit processed natural gas. The Permittee shall document the actual monthly average natural gas flowrate.
- 3.3.2.7. Recordkeeping Requirements: The Permittee shall document compliance with the requirements in this permit by keeping the following records for each of the six (6) Dehydration Systems:
- 3.3.2.7.1. All manufacturer and/or vendor specifications for the TEG dehydration unit, closed-vent system, condenser, TEG reboiler and any monitoring equipment;

- 3.3.2.7.2. All required extended wet gas analyses;
- 3.3.2.7.3. The actual monthly average natural gas flow rate;
- 3.3.2.7.4. Hourly records of the times and durations of all periods when the still vent stream is diverted from the TEG reboiler or the TEG reboiler is not operating;
- 3.3.2.7.5. Where a seal or closure mechanism is used to comply with Condition I.C.4.(e)(iv)(B) of permit #SMNSR-SU-000010-2019.004, hourly records of flow are not required. In such cases, the Permittee shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out and records of any car-seal that has broken;
- 3.3.2.7.6. Records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with Condition I.C.6.(a)(vii)(A) of permit #SMNSR-SU-000010-2019.004 of this permit, an explanation of why the equipment is unsafe to inspect and the plan for inspecting the equipment;
- 3.3.2.7.7. Records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with Condition I.C.6.(a)(vii)(B) of permit #SMNSR-SU-000010-2019.004, and explanation of why the equipment is difficult to inspect and the plan for inspecting the equipment.
- 3.3.2.7.8. For each closed-vent system inspection conducted in accordance with Section I.C.6.(a) of permit #SMNSR-SU-000010-2019.004 of this permit, during which a leak or defect is detected, a record of the information specified in the following eight subparagraphs:
 - 3.3.2.7.8.1. The instrument identification numbers, operator name or initials and identification of the equipment;
 - 3.3.2.7.8.2. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect;

- 3.3.2.7.8.3. Maximum instrument reading measured by the method specified in Section I.C.6.(a)(iv) of permit #SMNSR-SU-000010-2019.004 after the leak or defect is successfully repaired or determined to be nonrepairable;
- 3.3.2.7.8.4. “Repair delayed” and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect;
- 3.3.2.7.8.5. The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be affected without a shutdown;
- 3.3.2.7.8.6. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days;
- 3.3.2.7.8.7. Dates of shutdowns that occur while the equipment is unrepaired; and
- 3.3.2.7.8.8. The date of successful repair of the leak or defect.
- 3.3.2.7.9. For each closed-vent system inspection conducted in accordance with Section I.C.6.(a) of this permit during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection and a statement that no leaks or defects were detected.
- 3.3.2.7.10. For complying with the benzene emission limits specified in this permit, the Permittee shall document to the EPA’s satisfaction, the following items:
 - 3.3.2.7.10.1. The method used for achieving compliance and the basis for using this compliance method;
 - 3.3.2.7.10.2. The method used for demonstrating compliance with the 0.90 Mg of benzene in any consecutive 12-month period; and

- 3.3.2.7.10.3. Any information necessary to demonstrate compliance as required in the methods specified in paragraphs I.C.7.(j)(i) and (ii) of permit #SMNSR-SU-000010-2019.004.
- 3.3.2.7.11. All inspections of the condenser and TEG reboiler, any defects observed, and the corrective action taken;
- 3.3.2.7.12. All maintenance conducted on the condenser and TEG reboiler; and
- 3.3.2.7.13. The total monthly and consecutive 12-month benzene emissions calculations for each TEG dehydration unit.
- 3.3.2.7.14. Any instances where a flame is not detected in the combustion zone of any TEG reboiler, including:
 - 3.3.2.7.14.1. The date and time the deviation occurred, and the system subsequently began operating within the operating temperature specified in this permit;
 - 3.3.2.7.14.2. The date and time the reboiler subsequently began operation with a flame in the combustion zone;
 - 3.3.2.7.14.3. Any corrective actions taken, and preventative measures adopted to bring the reboiler back into compliance; and
 - 3.3.2.7.14.4. The operating hours of each TEG recirculation pump connected to each TEG dehydration unit, including the startup date and time and subsequent shut down date and time for each pump; and
- 3.3.2.7.15. Any instances in which the temperature monitoring devices installed to measure the condenser output temperature or the respective temperature data logger, are not operational, including:
 - 3.3.2.7.15.1. The date, time, and duration of the deviation; and
 - 3.3.2.7.15.2. Any corrective actions taken and any preventative measures adopted to avoid such deviation.

3.3.3. Requirements for Records Retention

- 3.3.3.1. The Permittee shall retain all records required by this permit (including all reports and notifications) for a period of at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.
- 3.3.3.2. Records shall be kept in such a manner that they can be readily accessed. The most recent 12 months of records shall be retained onsite or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 years of records may be retained offsite. Records shall be maintained in hard copy or computer readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

3.3.4. Requirements for Reporting

- 3.3.4.1. Notification of Compliance Status Reports: The Permittee shall submit a Notification of Compliance Status Report as required under 40 CFR 63.9(h) within 180 days after the effective date of this permit. In addition to the information required under 40 CFR 63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs I.E.1.(a) through (e) of this permit. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph has been submitted at any time prior to 180 days after the effective date of this permit, a separate Notification of Compliance Report is not required. If the Permittee submits the information specified in paragraphs I.E.1.(a) through (e) of this permit at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.
 - 3.3.4.1.1. The results of the closed-vent system initial inspections performed according to the requirements in Conditions I.C.6.(a)(i) and (ii) of this permit;
 - 3.3.4.1.2. After a title V permit has been issued to the Permittee, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the Permittee's title V permit,

including reports required under this permit. After a title V permit has been issued to the Permittee, and each time a notification of compliance status is required under this permit, the Permittee shall submit the notification of compliance status to the EPA following completion of the relevant compliance demonstration activity specified in this permit;

- 3.3.4.1.3. The records required under Condition I.C.7.(j) of permit #SMNSR-SU-000010-2019.004;
 - 3.3.4.1.4. The analysis performed under 40 CFR 63.760(a)(1) to determine that the facility is a major source of HAP as defined in 40 CFR 63.761; and
 - 3.3.4.1.5. A statement as to whether the facility has complied with the requirements of this permit.
- 3.3.4.2. Periodic Reports: The Permittee shall prepare Periodic Reports in accordance with paragraphs I.E.2.(a) and (b) of permit #SMNSR-SU-000010-2019.004.
- 3.3.4.2.1. The Permittee shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. The information required for a semiannual Periodic Report may be submitted as part of the Annual Report required in Condition I.E.4 of this permit.
 - 3.3.4.2.2. The Permittee shall include the information specified in the the following paragraphs I.E.2.(b)(i) through (iv) of permit #SMNSR-SU-000010-2019.004:
 - 3.3.4.2.2.1. For each closed-vent system with a bypass line subject to the Condition I.C.4.(e)(iv)(A) of permit #SMNSR-SU-000010-2019.004, records required under Condition I.C.7.(d) of permit #SMNSR-SU-000010-2019.004 of this permit of all periods when the still vent stream is diverted from the TEG reboiler through a bypass line;

- 3.3.4.2.2.2. For each closed-vent system with a bypass line subject to the option to Condition I.C.4.(e)(iv)(B) of permit #SMNSR-SU-000010-2019.004 of this permit, records required under Condition I.C.7.(e) of permit #SMNSR-SU-000010-2019.004 of this permit of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out;
 - 3.3.4.2.2.3. The records required under the Condition I.C.7.(j)(iii) of permit #SMNSR-SU-000010-2019.004 of this permit; and
 - 3.3.4.2.2.4. Certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.3.4.3. Notification of Process Change: Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report under Condition I.E.1. of permit #SMNSR-SU-000010-2019.004, the Permittee shall submit a report within 180 days after the process change is made or as part of the next Periodic Report as required under Condition I.E.2. of permit #SMNSR-SU-000010-2019.004, whichever is sooner. The report shall include:
- 3.3.4.3.1. A brief description of the process change;
 - 3.3.4.3.2. A description of any modification to standard procedures or quality assurance procedures;
 - 3.3.4.3.3. Revisions to any of the information reported in the original Notification of Compliance Status Report under Condition I.E.1. of permit #SMNSR-SU-000010-2019.004; and
 - 3.3.4.3.4. Information required by the Notification of Compliance Status Report under Condition I.E.1. of permit #SMNSR-SU-000010-2019.004 for changes involving the addition of processes or equipment.

3.3.4.4. Annual Reports:

3.3.4.4.1. The Permittee shall submit a written annual report summarizing the Permittee's compliance with all required emission limits, operational limits, monitoring and testing requirements for each TEG dehydration unit covered under this permit each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports must be certified to truth and accuracy by the by the person primarily responsible for Clean Air Act compliance of the Permittee.

3.3.4.4.2. The report shall include:

3.3.4.4.2.1. The monthly and consecutive 12-month benzene emissions calculations;

3.3.4.4.2.2. A summary of the results of all required inspections and monitoring of each TEG dehydration unit;

3.3.4.4.2.3. A summary of the information required in each Periodic Report that was submitted under Condition I.E.2.(b) of permit #SMNSR-SU-000010-2019.004 during the reporting period, unless the information required for the Periodic Report is being submitted as part of the Annual Report; and

3.3.4.4.2.4. A summary of all deviations of permit conditions and corrective actions taken.

3.3.4.5. All documents required to be submitted under this permit shall be submitted to the EPA and the Southern Ute Indian Tribe as follows:

U.S. Environmental Protection Agency, Region 8
Enforcement and Compliance Assurance Division
Air Toxics and Technical Enforcement Branch, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Documents may be submitted via email to r8airreportenforcement@epa.gov and r8airpermitting@epa.gov.

And by United States Postal Service:

Southern Ute Indian Tribe Environmental Programs Division
Air Quality Program
Part 70 Program
P.O. Box 737, Mail Slot #84
Ignacio, Colorado 81137

or by Common Carrier:

Southern Ute Indian Tribe Environmental Programs Division
Air Quality Program
Part 70 Program
398 Ouray Drive
Ignacio, Colorado 81137

Documents may be submitted via email to airquality@southernute-nns.gov.

- 3.3.4.6. The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements, a description of the probable cause of such deviations, and any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via email to r8airreportenforcement@epa.gov and airquality@southernute-nns.gov as follows:
- 3.3.4.6.1. Within 30 days from the discovery of a deviation that would cause the Permittee to exceed the benzene emissions limits or operational limits in this permit if left uncorrected for more than 5 days after discovering the deviation; and
- 3.3.4.6.2. By April 1st, for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the benzene emissions limits.
- 3.3.4.7. The Permittee shall submit any record or report required by this permit upon EPA request.

3.4. General Provisions [SMNSR-SU-000010-2011.001, MNSR-SU-000010-2014.002, SMNSR-SU-000010-2019.004]

3.4.1. Conditional Approval

Pursuant to the authority of 40 CFR 49.151, the EPA hereby conditionally grants this permit to construct. This authorization is expressly conditioned as follows:

- 3.4.1.1. *Document Retention and Availability:* This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.
- 3.4.1.2. *Permit Application:* The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. The EPA shall be notified 10 days in advance of any significant deviation from this permit application as well as any plans, specifications or supporting data furnished.
- 3.4.1.3. *Permit Deviations:* The issuance of this permit may be suspended or revoked if the EPA determines that a significant deviation from the permit application, specifications, and supporting data furnished has been or is to be made. If the proposed source is constructed, operated, or modified not in accordance with the terms of this permit, the Permittee will be subject to appropriate enforcement action.
- 3.4.1.4. *Compliance with Permit:* The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted facility/source. Noncompliance with any permit term or condition is a violation of this permit and may constitute a violation of the Clean Air Act and is grounds for enforcement action and for a permit termination or revocation.
- 3.4.1.5. *Fugitive Emissions:* The Permittee shall take all reasonable precautions to prevent and/or minimize fugitive emissions during the construction period.
- 3.4.1.6. *National Ambient Air Quality Standard and PSD Increment:* The permitted source shall not cause or contribute to a National Ambient Air Quality Standard violation or a PSD increment violation.

- 3.4.1.7. *Compliance with Federal and Tribal Rules, Regulations, and Orders:* Issuance of this permit does not relieve the Permittee of the responsibility to comply fully with all other applicable federal and tribal rules, regulations, and orders now or hereafter in effect.
- 3.4.1.8. *Enforcement:* It is not a defense, for the Permittee, in an enforcement action, to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 3.4.1.9. *Modifications of Existing Emissions Units/Limits:* For proposed modifications, as defined at 40 CFR 49.152(d), that would increase an emissions unit's allowable emissions of a pollutant above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit for the modification pursuant to the MNSR regulations approving the increase. For a proposed modification that is not otherwise subject to review under the PSD or MNSR regulations, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at 40 CFR 49.159(f).
- 3.4.1.10. *Relaxation of Legally and Practically Enforceable Limits:* At such time that a new or modified source within this permitted facility/source or modification of this permitted facility/source becomes a major stationary source or major modification solely by virtue of a relaxation in any legally and practically enforceable limitation which was established after August 7, 1980, on the capacity of this permitted facility/source to otherwise emit a pollutant, such as a restriction on hours of operation, then the requirements of the PSD regulations shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- 3.4.1.11. *Revise, Reopen, Revoke and Reissue, or Terminate for Cause:* This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee, for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. The EPA may reopen this permit for a cause on its own initiative, e.g., if this permit contains a material mistake or the Permittee fails to assure compliance with the applicable requirements.
- 3.4.1.12. *Severability Clause:* The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held

invalid, the remaining permit conditions shall remain valid and in force. 13. Property Rights: This permit does not convey any property rights of any sort or any exclusive privilege.

- 3.4.1.13. *Information Requests:* The Permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating this permit or to determine compliance with this permit. For any such information claimed to be confidential, you shall also submit a claim of confidentiality in accordance with 40 CFR part 2, subpart B.
- 3.4.1.14. *Inspection and Entry:* The EPA or its authorized representatives may inspect this permitted facility/source during normal business hours for the purpose of ascertaining compliance with all conditions of this permit. Upon presentation of proper credentials, the Permittee shall allow the EPA or its authorized representative to:
- 3.4.1.14.1. Enter upon the premises where this permitted facility/source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this permit;
 - 3.4.1.14.2. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;
 - 3.4.1.14.3. Inspect, during normal business hours or while this permitted facility/source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - 3.4.1.14.4. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements; and
 - 3.4.1.14.5. Record any inspection by use of written, electronic, magnetic and photographic media.
- 3.4.1.15. *Permit Effective Date:* This permit is effective immediately upon issuance unless a later effective date is specified in the permit, or unless comments resulted in a change in the proposed permit, in which case this permit is effective 30 days after issuance. If within 30 days after the service of notice

of the final permit issuance, a person petitions the Environmental Appeals Board to review any condition(s) of the final permit in accordance with 40 CFR 49.159(d), the specific terms and conditions of the permit that are the subject of the request for review must be stayed.

- 3.4.1.16. *Permit Transfers*: Permit transfers shall be made in accordance with 40 CFR 49.159(f). The Air Program Director shall be notified in writing at the address shown below if the company is sold or changes its name.

U.S. Environmental Protection Agency, Region 8
Air and Radiation Division
Tribal Air Permitting Program, 8ARD-PM
1595 Wynkoop Street
Denver, Colorado 80202

- 3.4.1.17. *Invalidation of Permit*: Unless this permitted source is an existing source, this permit becomes invalid if construction is not commenced within 18 months after the effective date of this permit, construction is discontinued for 18 months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between the construction of the approved phases of a phased construction project. The Permittee shall commence construction of each such phase within 18 months of the projected and approved commencement date.
- 3.4.1.18. *Notification of Start-Up*: The Permittee shall submit a notification of the anticipated date of initial start-up of this permitted source to the EPA within 60 days of such date, unless this permitted source is an existing source.

4. Reserved – Prevention of Significant Deterioration Requirements

5. Reserved – Consent Decree Requirements

6. Reserved – Compliance Assurance Monitoring (CAM) Requirements

7. Enhanced Monitoring, Recordkeeping, and Reporting

7.1. Any documents required to be submitted under this Title V operating permit, including but not limited to, reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to the Tribe:

by email at: airquality@southernute-nsn.gov

or by United States Postal Service:

Part 70 Program
Environmental Programs Division
Air Quality Program
P.O. Box 737 MS #84
Ignacio, Colorado 81137

or by Common Carrier:

Part 70 Program
Environmental Programs Division
Air Quality Program
398 Ouray Drive
Ignacio, CO 81137

Section IV – Appendix

1. Inspection Information

1.1. Driving Directions:

From Durango, Colorado:

- Take HWY 160 east, turn onto HWY 550 south
- Take Hwy 550 south, north of Bondad turn left on County Road 310/318 ("Bondad-Ignacio Highway")
- Take CR 310/318 east approximately 2.9 miles (before mile marker 3)
- Turn right onto dirt road, continue approximately 0.2 miles
- Turn left onto dirt road, will pass Red Cedar employee parking lot, and follow road over Texaco Hill, approximately 4.8 miles to Crows Foot intersection
- From crows Food intersection, stay right and travel 0.3 miles
- Turn right into Arkansas Loop and Simpson Treating Plants

From Ignacio, Colorado:

- Take HWY 172 south, turn right onto County Road 318/310
- Take CR 310/318 west for approximately 5.1 miles to intersection of County Roads 318 and 311 (before mile marker 10)
- Turn left, travel south on road SUT-151 approximately 1.5 miles to top of Herrera Hill
- Turn right on road SUT-510 and follow road for approximately 3.6 miles to Crows Foot intersection
- From crows Food intersection, turn left and travel 0.3 miles
- Turn right into Arkansas Loop and Simpson Treating Plants

From Ignacio, Colorado (bad weather & road conditions):

- Take Hwy 172 south, turn right onto CR 310/318 and travel west to mile marker 3
- Approximately 0.1 miles past mile marker 3 to intersection, turn left onto dirt road for approximately 0.2 miles
- Turn left onto dirt road, will pass Red Cedar employee parking lot, and follow road over Texaco Hill, approximately 4.8 miles to Crows Foot intersection
- From crows Food intersection, stay right and travel 0.3 miles
- Turn right into Arkansas Loop and Simpson Treating Plants

*Note: A Southern Ute Tribal crossing permit is required to cross tribal lands to access these facilities.

1.2. Global Positioning System (GPS):

Latitude: 37.053195° N

Longitude: -107.785518° W

1.3. Safety Considerations:

All visitors to the facility must check in at the Arkansas Loop control room and are expected to adhere to Red Cedar Gathering safety policies. Policies of particular concern are those regarding Personal Protective Equipment (PPE) and performance of Hot Work. As posted at the entrance to the station, Red Cedar Gathering requires persons entering the site to wear a hard hat, safety glasses, safety toe footwear, hearing protection, and fire retardant clothing. Red Cedar Gathering also requires a permit be issued for the performance of any hot work at the station.