NORTH Dakota | Environmental Quality
Be Legendary.

AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

(Federally Enforceable)

Permittee Name: Hess Tioga Gas Plant LLC	**Permit Number**: ACP-18224 v1.0
Permittee Address: 10340 – 68th Street NW Tioga, ND 58852	**Source Description**: PSD Synthetic Minor Source HAP Area Source Current Title V Major Source
Source Name & Location: Tioga Gas Plant 10340 – 68th Street NW Lat/Long: 48.3988, -102.9138 W½, NE¼, Sec. 26, T157N, R95W Williams County	**Source Type**: Natural Gas Processing
Date of Application:	January 9, 2024 (Application) September 4, 2025 (Revision)

Pursuant to Chapter 23.1-06 of the North Dakota Century Code, the North Dakota Air Pollution Control Rules (North Dakota Administrative Code [NDAC] 33.1-15), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Permit to Construct (PTC, also referred to as 'permit') is hereby issued authorizing such permittee to construct and initially operate the source unit(s) listed in Condition 1 at the location designated above. The source may be operated under this PTC until a Permit to Operate (PTO) is issued. This PTC is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department), state and federal regulations, and to any conditions specified below:

Date: _____

James L. Semerad
Director
Division of Air Quality

4201 Normandy St | Bismarck, ND 58503-1324 | Fax: 701-328-5200 | deq.nd.gov

Director's Office 701-328-5150
Division of Air Quality 701-328-5188
Division of Municipal Facilities 701-328-5211
Division of Waste Management 701-328-5166
Division of Water Quality 701-328-5210
Division of Chemistry 701-328-6140 2635 East Main Ave Bismarck ND 58501

1. Project and Facility Emission Units:

This PTC does not affect the operation of the facility emissions units and does not allow for the construction of any new equipment at the facility. This Project was requested to 'clean up' previous permits with one permit action, accurately capturing all recent modifications and facilitating Title V renewal. ACP-18224 v1.0_AQEA-MEMO details the facility wide emission profile and regulation analysis associated with this permit. The rest of this permit summarizes facility conditions

Table 1-1 lists all emission units renamed, added, or removed.

Table 1-2 is the updated list of all emission units associated with the facility.

Table 1-1: All Emission Units Renamed, Added, or Removed

Emission Unit Description	Nominal Rating	Previous Emission Unit (EU)	Current EU	Current Emission Point (EP)	Air Pollution Control Equipment
Clark natural gas-fired pipeline compressor engine (1954, MACT ZZZZ)	1,920 bhp	C-1A	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (1954, MACT ZZZZ)	1,920 bhp	C-1B	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (1954, MACT ZZZZ)	1,920 bhp	C-1C	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (2004, MACT ZZZZ)	2,350 bhp	C-1D	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (1954, MACT ZZZZ)	1,920 bhp	C-1E	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (2003, MACT ZZZZ)	2,350 bhp	C-1F	Removed	Removed	None
Clark natural gas-fired pipeline compressor engine (1954, MACT ZZZZ)	1,920 bhp	C-1G	Removed	Removed	None
Natural gas-fired regenerative heater (2014, NSPS Dc)	26.7 MMBtu/hr	5210 Heater	RH-5210	F-1	None
Natural gas-fired heater (2014, NSPS Dc)	93.0 MMBtu/hr	5704 Heater	H-5704	F-2	None
Natural gas-fired heater (2014, NSPS Dc)	93.0 MMBtu/hr	5714 Heater	H-5714	F-3	None

Emission Unit Description	Nominal Rating	Previous Emission Unit (EU)	Current EU	Current Emission Point (EP)	Air Pollution Control Equipment
Natural gas-fired oil heater treater	0.5 MMBtu/hr	None	F-7A	F-7A	None
Natural gas-fired oil heater treater	6.74 MMBtu/hr	H-304	Removed	Removed	None
Diesel-fired firewater pump engine (2011, certified NSPS IIII)	460 bhp	P-5741	FWP-1 [A]	FWP-1	None
Diesel-fired firewater pump engine (1994, MACT ZZZZ)	482 bhp	P-49C	FWP-2 [A]	FWP-2	None
Diesel-fired firewater pump engine (1990, MACT ZZZZ)	270 bhp	P-49A	FWP-3 [A]	FWP-3	None
Diesel-fired firewater pump engine (1998, MACT ZZZZ)	214 bhp	P-49B	Removed	Removed	None
Spyder high pressure flare		S-0190	S-5870	S-5870	N/A
Amine sulfur recovery unit (SRU) sending tail gas to a thermal oxidizer		S-302 [B]	No change	S-302	Thermal oxidizer
Claus reactor furnace (burning auxiliary fuel)	40 MMBtu/hr	H-301	No change		
Thermal oxidizer (burning auxiliary fuel)	23.1 MMBtu/hr	I-301	H-306		
Triethylene glycol (TEG) dehydration unit, still vent	input of 150 MMscf/day	SV-9200	T-9261 [A]	XV-921201	Closed vent system (CVS) routed to low pressure gas inlet
Natural-gas fired TEG reboiler	0.66 MMBtu/hr	R-9200	E-9271 [A]	E-9271	None
Three crude oil storage tanks (NSPS Kb)	500 barrels each	None	D-64A D-64B D-64C	FUG	CVS & Vapor Recovery Unit (VRU)
Three slop oil storage tanks (NSPS Kc)	500 barrels each	None	D-29 D-30 D-31	FUG	CVS & VRU
Methanol storage tank	107 barrels	None	D-99 [A]	FUG	None
Methanol storage tank	300 barrels	None	TK-9796 [A]	FUG	None
Gasoline tank	140 barrels	None	D-51 [A]	FUG	None
Diesel tank	24 barrels	None	D-90 [A]	FUG	None
TEG storage tank	250 barrels	None	TK-9285 [A]	FUG	None

Emission Unit Description	Nominal Rating	Previous Emission Unit (EU)	Current EU	Current Emission Point (EP)	Air Pollution Control Equipment
Disulfide oil storage tank	1,000 barrels	D-26040 Tank	Removed	Removed	None
Natural gasoline loadout	990,842 barrels per year	None	NGLOAD [A]	S-102	CVS & flare
Crude oil loadout	118,205 barrels per year	None	CRUDELOAD [A]	S-102	CVS & flare
Nine reciprocating compressors (NSPS OOOO)		None	C-5461 C-5471 C-5481 C-5630 C-5631 C-5401 C-5421 SOC-5012 SOC-5055	FUG	Leak detection and repair (LDAR) program
Reciprocating compressor (NSPS OOOOa)		None	C-36100	FUG	LDAR
Fugitive emissions (NSPS OOOOa)		None	FUG	FUG	LDAR

[A] Insignificant emission source
[B] Claus reactors, CBA reactors, and sulfur condensers B and C are bypassed; reduced gas is sent straight to the thermal oxidizer.

Table 1-2: Facility Emission Units (Updated)

EU Description	Nominal Rating	EU	EP	Air Pollution Control Equipment
Natural gas-fired turbine and duct burner (2002, NSPS GG)	output of 1,480 bhp input of 15.95 MMBtu/hr with a 5.77 MMBtu/hr duct burner	C-30100	C-30100	None

EU Description	Nominal Rating	EU	EP	Air Pollution Control Equipment
Natural gas-fired turbine and duct burner (2001, NSPS GG)	output of 1,480 bhp input of 15.95 MMBtu/hr with a 5.77 MMBtu/hr duct burner	C-30200	C-30200	None
Natural gas-fired turbine (2001, NSPS GG)	output of 1,480 bhp input of 15.95 MMBtu/hr	C-30300	C-30300	None
Natural gas-fired regenerative heater (2014, NSPS Dc)	26.7 MMBtu/hr	RH-5210	F-1	None
Natural gas-fired heater (2014, NSPS Dc)	93.0 MMBtu/hr	H-5704	F-2	None
Natural gas-fired heater (2014, NSPS Dc)	93.0 MMBtu/hr	H-5714	F-3	None
Natural gas-fired heater	0.5 MMBtu/hr	F-5A	F-5A	None
Natural gas-fired heater	0.5 MMBtu/hr	F-5B	F-5B	None
Natural gas-fired heater	0.5 MMBtu/hr	F-5C	F-5C	None
Natural gas-fired oil heater treater	0.5 MMBtu/hr	F-7A	F-7A	None
Natural gas-fired boiler	20.1 MMBtu/hr	B-1	B-1	None
Natural gas-fired boiler (2017, NSPS Dc)	24.5 MMBtu/hr	B-2	B-2	None
Natural gas-fired boiler (2017, NSPS Dc)	24.5 MMBtu/hr	B-3	B-3	None
Natural gas-fired boiler (2014, NSPS Dc)	24.5 MMBtu/hr	B-4	B-4	None
Natural gas-fired boiler	20.1 MMBtu/hr	B-5	B-5	None
Cummins GTA28 natural gas-fired, rich-burn emergency generator (2011, NSPS JJJJ)	701 bhp	G-1 [A]	G-1	Catalytic Converter
Caterpillar GNE-6201 natural gas-fired, lean-burn emergency generator (2012, NSPS JJJJ)	2,889 bhp	G-2 [A]	G-2	None
Caterpillar GNE-6340 natural gas-fired, lean-burn emergency generator (2020, NSPS JJJJ)	755 bhp	G-5 [A]	G-5	3-Way Catalyst
Cummins KTA28 diesel-fired emergency generator (1999, MACT ZZZZ)	1,490 bhp	G-4 [A]	G-4	None

EU Description	Nominal Rating	EU	EP	Air Pollution Control Equipment
Diesel-fired firewater pump engine (2011, certified NSPS IIII)	460 bhp	FWP-1 [A]	FWP-1	None
Diesel-fired firewater pump engine (1994, MACT ZZZZ)	482 bhp	FWP-2 [A]	FWP-2	None
Diesel-fired firewater pump engine (1990, MACT ZZZZ)	270 bhp	FWP-3 [A]	FWP-3	None
Tri-tip flare (north) (acid gas flare burns auxiliary natural gas)		S-101 [B, C]	S-5811 (cryogenic) S-5821 (acid gas) S-5841 (process)	N/A
High pressure flare (south)		S-102 [C]	S-102	N/A
Spyder high pressure flare		S-5870 [C]	S-5870	N/A
Amine sulfur recovery unit (SRU) sending tail gas to a thermal oxidizer		S-302 [D]	S-302	Thermal oxidizer
Claus reactor furnace (burning auxiliary fuel)	40 MMBtu/hr	H-301		
Thermal oxidizer (burning auxiliary fuel)	23.1 MMBtu/hr	H-306		
Triethylene glycol (TEG) dehydration unit, still vent	input of 150 MMscf/day	T-9261 [A]	XV-921201	Closed vent system (CVS) routed to low pressure gas inlet
Natural-gas fired TEG reboiler	0.66 MMBtu/hr	E-9271 [A]	E-9271	None
Two natural gasoline storage tanks (NSPS Kb)	12,000 barrels each	D-62A D-62B	FUG	Internal floating roof
Two wastewater storage tanks	5,000 barrels each	D-24A D-24B	FUG	None
Three crude oil storage tanks (NSPS Kb)	500 barrels each	D-64A D-64B D-64C	FUG	CVS & Vapor Recovery Unit (VRU)
Three slop oil storage tanks (NSPS Kc)	500 barrels each	D-29 D-30 D-31	FUG	CVS & VRU
Methanol storage tank	107 barrels	D-99 [A]	FUG	None
Methanol storage tank	300 barrels	TK-9796 [A]	FUG	None
Gasoline tank	140 barrels	D-51 [A]	FUG	None

EU Description	Nominal Rating	EU	EP	Air Pollution Control Equipment
Diesel tank	24 barrels	D-90 [A]	FUG	None
TEG storage tank	250 barrels	TK-9285 [A]	FUG	None
Natural gasoline loadout	990,842 barrels per year	NGLOAD [A]	S-102	CVS & flare
Crude oil loadout	118,205 barrels per year	CRUDELOAD [A]	S-102	CVS & flare
Nine reciprocating compressors (NSPS OOOO)		C-5461 C-5471 C-5481 C-5630 C-5631 C-5401 C-5421 SOC-5012 SOC-5055	FUG	Leak detection and repair (LDAR) program
Reciprocating compressor (NSPS OOOOa)		C-36100	FUG	LDAR
Fugitive emissions (NSPS OOOOa)		FUG	FUG	LDAR

[A] Insignificant emission source
[B] The flare has one stack with three separate emission points for various gas plant processes.
[C] Emergency/maintenance use only
[D] Claus reactors, CBA reactors, and sulfur condensers B and C are bypassed; reduced gas is sent straight to the thermal oxidizer.

2. Applicable Standards, Restrictions and Miscellaneous Conditions:

A. New Source Performance Standards (NSPS):

The permittee must comply with all applicable requirements of the following NSPS subparts, in addition to Subpart A, as referenced in NDAC 33.1-15-12 and Title 40 of the Code of Federal Regulations (CFR) Part 60.

1) NSPS Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (EUs B-2, B-3, B-4, RH-5210, H-5704, & H-5714)

2) NSPS Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23,

1984, and On or Before October 4, 2023 (EUs D-62A, D-62B, D-64A, D-64B, & D64-C)

3) NSPS Kc – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After October 4, 2023 (EUs D-29, D-30, & D-31)

4) NSPS GG – Standards of Performance for Stationary Gas Turbines (EUs C-30100, C-30200, & C-30300)

5) NSPS IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU FWP-1)

6) NSPS JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (EUs G-1, G-2, & G-5)

7) NSPS OOOO – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015 (EUs C-5461, C-5471, C-5481, C-5630, C-5631, C-5401, C-5421, SOC-5012, & SOC-5055)

8) NSPS OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022 (EUs C-36100 & FUG)

B. National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Source Categories/Maximum Achievable Control Technology (MACT):

The permittee must comply with all applicable requirements of the following MACT subparts, in addition to Subpart A, as referenced in NDAC 33.1-15-22 and 40 CFR 63.

1) MACT ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EUs G-4, FWP-1, FWP-2, & FWP-3)

C. Fuel Restrictions:

1) All natural gas-fired emission units must exclusively burn pipeline quality natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet. For the turbines (EUs C-30100, C-30200 & C-30300), compliance with this requirement is creditable evidence of compliance with NSPS GG.

Applicable requirement: NDAC 33.1-15-06-01.1(e)

2) All diesel-fired engines must exclusively burn ultra-low sulfur diesel (ULSD) containing no more than 15 ppm sulfur.

Applicable requirement: NDAC 33.1-15-06-01.2

D. Stack Height Requirements:

Emissions must be vented through stacks with heights above the minimums defined in Table 2-1 and below the maximum defined by good engineering practice per NDAC 33.1-15-18. Stacks must not utilize air dispersion techniques to artificially alter ambient air concentrations. Stack heights must be no less than those below without prior approval from the Department.

Table 2-1: Minimum Stack Heights

EP Description	EP	Minimum Stack Height (Feet)
Tri-tip flare (north)	S-5811 S-5821 S-5841	165
Natural gas-fired regenerative heater	F-1	118
Natural-gas fired heater	F-2	137
Natural-gas fired heater	F-3	137

E. Emergency Engines:

To be considered emergency under the reciprocating internal combustion engine (RICE) rules (NSPS IIII, NSPS JJJJ, & MACT ZZZZ), engine operations must comply with the operating hour limits as specified in the applicable subpart. There is no limit on the use of emergency stationary RICE in emergency situations [40 CFR 60.4243(d) and 40 CFR 63.6640(f)].

Applicable requirement: NDAC 33.1-15-12

3. Emission Unit Limits:

Upon issuance of this permit, the emission limits set forth in all previous permits are rescinded including but not limited to ACP-17414 v1.0 (PTC12009), ACP-17484 v1.0 (PTC12078), ACP-17776 v1.0 (PTC16003), ACP-17813 v1.0 (PTC16041), ACP-17835 v1.0 (PTC17022), ACP-17933 v1.0 (PTC19029), and ACP-17959 v1.0 (PTC20006). In place of them, emission limits for the operation of the source unit(s) identified in Table 1-2 of this PTC are as follows in Table 3-1. Source units not listed are subject to the applicable emission limits specified in NDAC 33.1-15.

Table 3-1: Summary of Permit Limits. Requirements apply to each EP.

EU Description	EU	EP	Pollutant/ Parameter	Limit	Regulatory Justification
Natural gas-fired turbine and duct burners (2002 & 2001, NSPS GG)	C-30100 C-30200	C-30100 C-30200	NO_X SO_2 Opacity	9.9 lb/hr [A] Condition 2.C.1 20%/40% [C]	NSPS GG NDAC 33.1-15-06-01.1(e) NDAC 33.1-15-03-02
Natural gas-fired turbine (2001, NSPS GG)	C-30300	C-30300	NO_X SO_2 Opacity	9.3 lb/hr [A] Condition 2.C.1 20%/40% [C]	NSPS GG NDAC 33.1-15-06-01.1(e) NDAC 33.1-15-03-02
Natural gas-fired heaters (2014, NSPS Dc)	H-5704 H-5714	F-2 F-3	SO_2 Opacity	Condition 2.C.1 20%/40% [C]	NDAC 33.1-15-06-01.1(e) NDAC 33.1-15-03-02
Nested emission limit	C-30100 C-30200 C-30300 H-5704 H-5714	C-30100 C-30200 C-30300 F-2 F-3	NO_X	123 tons/12-month rolling total [B]	ACP-18224 v1.0 Condition 3.A
Natural gas-fired heaters	RH-5210 F-5A F-5B F-5C F-7A	F-1 F-5A F-5B F-5C F-7A	SO_2 Opacity	Condition 2.C.1 20%/40% [C]	NDAC 33.1-15-06-01.1(e) NDAC 33.1-15-03-02
Natural gas-fired boilers	B-1 B-2 B-3 B-4 B-5	B-1 B-2 B-3 B-4 B-5	SO_2 Opacity	Condition 2.C.1 20%/40% [C]	NDAC 33.1-15-06-01.1(e) NDAC 33.1-15-03-02

EU Description	EU	EP	Pollutant/ Parameter	Limit	Regulatory Justification
Natural gas-fired emergency generators (2011, 2012, & 2020, NSPS JJJJ)	G-1 G-2 G-5	G-1 G-2 G-5	NO_X CO VOC Operating Hours	Various	NSPS JJJJ
			SO_2	Condition 2.C.1	NDAC 33.1-15-06-01.1(e)
			Opacity	20%/40% [C]	NDAC 33.1-15-03-02
Cummins KTA28 diesel-fired emergency generator (1999, MACT ZZZZ)	G-4	G-4	Operating Hours	Various	MACT ZZZZ
			SO_2	Condition 2.C.2	NDAC 33.1-15-06-01.2
			Opacity	20%/40% [C]	NDAC 33.1-15-03-02
Diesel-fired firewater pump engine (2011, certified NSPS IIII)	FWP-1	FWP-1	NO_X CO VOC PM Operating Hours	Various	NSPS IIII
			SO_2	Condition 2.C.2	NDAC 33.1-15-06-01.2
			Opacity	20%/40% [C]	NDAC 33.1-15-03-02
Diesel-fired firewater pump engine (1994 & 1990, MACT ZZZZ)	FWP-2 FWP-3	FWP-2 FWP-3	Operating Hours	Various	MACT ZZZZ
			SO_2	Condition 2.C.2	NDAC 33.1-15-06-01.2
			Opacity	20%/40% [C]	NDAC 33.1-15-03-02
Tri-tip flare (north) (acid gas flare burns auxiliary natural gas)	S-101	S-5811 (cryogenic)	Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1
		S-5821 (acid gas)	SO_2	Condition 2.C.1 [F]	NDAC 33.1-15-06-01.1(e)
			Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1
		S-5841 (process)	Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1
High pressure flare (south)	S-102	S-102	Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1

EU Description	EU	EP	Pollutant/ Parameter	Limit	Regulatory Justification
Spyder high pressure flare	S-5870	S-5870	Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1
Amine sulfur recovery unit (SRU) sending tail gas to a thermal oxidizer	S-302	S-302	SO_2	153 lb/hr [E] & 219 tons/12-month rolling total & Condition 2.C.1 [F]	ACP-18224 v1.0 Condition 3.B
Claus reactor furnace (burning auxiliary fuel)	H-301				NDAC 33.1-15-06-01.1(e)
Thermal oxidizer (burning auxiliary fuel)	H-306		Opacity	20%/60% [D]	NDAC 33.1-15-03-03.1
Natural-gas fired TEG reboiler	E-9271	E-9271	SO_2	Condition 2.C.1	NDAC 33.1-15-06-01.1(e)
			Opacity	20%/40% [C]	NDAC 33.1-15-03-02
Fugitive emissions (NSPS OOOOa)	FUG	FUG	VOC	LDAR	NSPS OOOOa

[A] The 159 ppmvd limit was converted to lb/hr using ISO conditions (15% O_2 & 20°C) considering an AP-42 emission factor for the duct burners. The limit applies to each individual emission unit. Compliance may demonstrated through compliance with the nested cap.
[B] A nested cap of 123 tpy of NO_X is applied across the 5 most significant emission units; actual emissions for all 5 summed must be less than 123 tons/12-month rolling total, calculated each month.
[C] Up to 20% opacity is allowed except for one six-minute period per hour when up to 40% is permissible.
[D] Up to 20% opacity is allowed except for one six-minute period per hour when up to 60% is permissible.
[E] Emission limit is to be monitored with CEMS/CERMS.
[F] This requirement applies only to the auxiliary natural gas, not the acid/tail gas.

A. Nested NO_X Emission Limit Requirements:

The permittee must calculate and record the sum of NO_X emissions from the turbines (EUs C-30100, C-30200 & C-30300) and heaters (EUs F-2 & F-2). Emissions must be calculated using the following,

$$Total\ NO_X\ (tpy) = \sum hours\ of\ operation \left(\frac{hr}{yr}\right) \cdot tested\ emission\ rate\ \left(\frac{lb}{hr}\right) \cdot \left(\frac{ton}{2000\ lb}\right)$$

where the contribution of each of the 5 emission units listed above is summed, the most recent testing data is used, and hours are totaled for the previous 12-month period. In the event that

combined NO_X emissions exceed 123 tons per year, the permitee must notify the Department within 10 days of the calculation.

B. Amine Unit SO_2 Emission Limit Requirements (EP S-302):

This Condition is invalidated at such a time that the SRU (EUs S-302, H-301, & H-306) is decommissioned and incapable of emitting SO_2.

1) The permittee must calibrate, maintain, and operate equipment for continuously monitoring and recording sulfur dioxide emissions on a lb/hr basis from the sulfur plant incinerator stack (EP S-302). The monitoring and recording must be in accordance with the requirements for notification and recordkeeping under 40 CFR 60.7 and monitoring requirements under 40 CFR 60.13 or quality assurance procedures approved in advance by the Department. The data recording system must record the emission rate on both a 24-hour rolling average basis and a l-hour block average basis.

2) The permittee must conduct a performance evaluation of the SO_2 continuous emission rate monitoring system (CERMS) between two and three years from the date of the previous performance evaluation. The performance evaluation must be conducted in accordance with the relative accuracy (RA) provisions of Performance Specification 6 of 40 CFR 60, Appendix B. The performance evaluation report must be submitted within 60 days after completion of the performance evaluation. The Department may require additional performance audits of the CERMS system.

3) When a failure of the CERMS occurs, a Department-accepted alternative SO_2 monitoring method must be undertaken as soon as possible. Timely repair of the emission monitoring system must be made.

4) By the 15th day of each month, the permittee must record the total SO_2 emissions from the Amine Unit (EP S-302) for the previous 12-month period. In the event that SO_2 emissions exceed 219 tons in a 12-month period, the permittee must notify the Department by the 25th day of the month in which the calculation was made.

5) Once per month, the permittee must conduct a formal visible emissions evaluation of the sulfur plant incinerator stack (EP S-302) to determine if emissions comply with the applicable opacity standard. Opacity readings must consist of three consecutive six-minute periods using EPA Reference Method 9 and be conducted by a certified visible emissions reader. During periods of plant upsets which result in increased opacity from the incinerator, opacity must be observed hourly following the first hour of the plant upset in the same manner as above.

4. Emission Testing Requirements:

All emission tests identified in Table 4-1 must be conducted according to the Reference Methods (40 CFR 60 Appendix A), NDAC 33.1-15-01-12, applicable federal regulations, or as specified by the Department in accordance with good professional practice. The Department may conduct, require, and observe emission testing from any source at a reasonable time interval. The Department may reasonably require the permittee to demonstrate compliance with Condition 3 or to quantify emissions of any contaminant not addressed in this PTC whenever it has reason to believe noncompliance or the emission of a non-addressed contaminant is occurring.

Applicable requirement: NDAC 33.1-15-01-12

Table 4-1: Emission Testing Requirements

EU Description	EP [A]	Pollutant/ Parameter	Testing Method	Regulatory Justification
Natural gas-fired turbines and duct burners & natural gas-fired heaters	C-30100 C-30200 C-30300 F-2 F-3	NO_X	Method 7E [B]	NDAC 33.1-15-14-02.6

[A] The requirement applies to each individual emission point.
[B] Equivalent methods approved by the Department may be used.

A. Startup:

Within 180 days after permit issuance, the permittee must conduct emission tests in accordance with Table 4-1 using an independent testing firm to determine the compliance status of the facility with respect to the emission limits specified in Table 3-1.

Applicable requirement: NDAC 33.1-15-12

B. Personnel:

All tests must be conducted under the direction of reputable, qualified personnel trained in accordance with Department approved methods.

Applicable requirement: NDAC 33.1-15-01-12.1

C. Sampling Access:

The permittee must provide the necessary facilities (exclusive of instruments and sensing devices) and sampling ports in stacks, ducts, or flues downstream of all emission control devices to conduct emission measurements. The ports must be located to enable reliable sampling and must be adequate for the required test methods. Safe sampling access and platforms must be provided. Plans and specifications showing the size and location of the ports, platform and utilities must be submitted to the Department for review and approval.

Applicable requirements: NDAC 33.1-15-01-12.2, NDAC 33.1-15-12

D. Advanced Notification:

The permittee must notify the Department using forms found in the Emission Testing Guideline[1], or its equivalent, at least 30 calendar days in advance of any emission test required by the Department. Advanced notification for all other testing will be consistent with the requirements of the appropriate regulations but will in no case be less than 30 calendar days.

Applicable requirement: NDAC 33.1-15-01-12.1

E. Rescheduled Tests:

If the permittee is unable to conduct a test on its scheduled date, the permittee must notify the Department at least five days prior to the scheduled test date and coordinate a new test date with the Department.[1] Failure to give the proper notification may prevent the Department from observing the test, which may cause test results to be rejected.

Applicable requirement: NDAC 33.1-15-01-12.1

F. Reporting:

A signed copy of the test results must be furnished to the Department within 60 days of the test date as per 40 CFR 60.13(c)(2). To facilitate test preparation, execution, and reporting, the permittee must follow the procedures and formats in the Department's Emission Testing Guideline.[1]

Applicable requirement: NDAC 33.1-15-12

5. General Conditions (Action Required):

A. Modification:

Any alteration, repair, expansion, or change in the method or physical operation of the source which results in the emission of an additional type or greater amount of air contaminants, or which results in an increase in the ambient concentration of any air contaminant is considered a modification and must be reviewed and approved by the Department before implementation. The Department must be notified 10 days in advance of any significant deviations from the application. The issuance of this PTC may be suspended or revoked if the Department determines that a significant deviation has been or is to be made without the proper review or approval.

Applicable requirement: NDAC 33.1-15-14-02.9.d

[1] See February 7, 2020, NDDEQ Division of Air Quality Emission Testing Guidelines: https://www.deq.nd.gov/publications/AQ/policy/PC/Emission_Testing_Guide.pdf

B. Like-Kind Emission Unit Replacement:

This permit allows the permittee to replace an existing emission unit with a like-kind unit. Replacement is subject to the following conditions:

6) The replacement unit is subject to the same emission limits and performance testing requirements—both state and federal—as the existing unit. The facility must comply with any additional federal standards (e.g. NSPS, MACT) triggered by the replacement.

7) The Department must be notified within 10 days of replacement. The date of manufacture of the replacement unit and any additional federal applicability must be included in the notification.

8) The replacement unit must operate in the same manner without increasing throughput and have equal or less emissions than the unit it is replacing.

9) Testing must be conducted to confirm compliance with emission limits within 180 days after start-up of the replacement unit. Emergency units must not be required to test if replaced by a like-kind unit.

Applicable requirement: NDAC 33.1-15-14-02.9.d

C. Title V Permit to Operate:

Within one year after the issuance of this permit, the permittee must submit a permit application for a Title V PTO revision for the facility.

Applicable requirement: NDAC 33.1-15-14-06.4.a(1)(a)

D. Annual Emission Inventory/Annual Production Reports:

The permittee must submit an annual emission inventory report and/or an annual production report upon Department request on forms approved by the Department.

Applicable requirement: NDAC 33.1-15-14-02.9.d

E. Malfunction Notification:

The permittee must notify the Department of any malfunction which can be expected to last longer than 24 hours and can cause the emission of air contaminants in violation of applicable rules and regulations. Using empirical estimates of emission rates, the permittee must conservatively estimate if the malfunction can cause noncompliance.

Applicable requirement: NDAC 33.1-15-01-13.2.a

F. Transfer of Permit to Construct:

The holder of a PTC may not transfer such permit without prior approval from the Department.

Applicable requirement: NDAC 33.1-15-14-02.11

6. General Conditions (Obligations):

A. Operation:

Construction and operation of the facility must be in accordance with the permit application—which includes technical supplements, revisions, and supporting data. Any operations not listed in this permit are subject to all applicable NDAC 33.1-15 requirements. At all times, including periods of startup, shutdown, and malfunction, the permittee must, to the extent practicable, maintain and operate any affected facility—including associated air pollution control equipment—in a manner consistent with good practice for minimizing emissions.

Applicable requirements: NDAC 33.1-15-12, NDAC 33.1-15-22

B. Recordkeeping:

The permittee must maintain any compliance monitoring records required by this permit or applicable requirements for a period of at least five years (unless otherwise stated) from the date of the monitoring sample, measurement, report or application. Support information may include all calibration and maintenance records, all original strip-chart recordings and computer printouts for continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable requirements: NDAC 33.1-15-14-02.9.d

C. Control of Organic Compound Emissions:

The permittee must comply with all applicable requirements of NDAC 33.1-15-07, which establishes requirements for the construction of organic compound facilities related to closed-vent systems, control devices, and seals and for the control of VOC vapors using a continuously burning pilot flare or other equally effective control device.

D. Internal Combustion Engine Emissions Restricted:

The permittee must comply with all applicable requirements of NDAC 33.1-15-08-01, which restricts the operation of internal combustion engines which emit, from any source, unreasonable and excessive smoke, obnoxious or noxious gas, fumes or vapor.

E. Restriction of Fugitive Emissions:

The release of fugitive emissions must comply with the applicable requirements in NDAC 33.1-15-17, which restricts particulate matter and gaseous fugitive emissions that would violate other regulations.

F. Permit Invalidation:

This permit must be effective from the date of its issuance unless suspended, revoked or surrendered. The violation of any condition of this permit may result in revocation or suspension of the permit or other appropriate enforcement action. If any provision or application of a provision of this permit is held invalid in any circumstance, the remainder of this permit must remain valid.

Applicable requirement: NDAC 33.1-15-14-02.9

G. Nuisance or Danger:

This permit must in no way authorize the maintenance of a nuisance or a danger to public health or safety.

Applicable requirements: NDAC 33.1-15-02-03, NDAC 33.1-15-14-02.9.c

H. Right of Entry:

Any duly authorized officer, employee, or agent of the Department may enter and inspect any property, premise, or place at which the source is located at any time for the purpose of ascertaining compliance with NDAC 33.1-15. The Department may inspect monitoring equipment, conduct tests, and take samples of air contaminants, fuel, processing material, and other materials, which affect or may affect the emission of air contaminants from any source. The Department must have the right to access and copy any records required by the Department.

Applicable requirement: NDAC 33.1-15-01-06, NDCC 23.1-06-11

7. State Enforceable Conditions (Not Federally Enforceable):

A. Emissions of Odorous Substances Restricted:

The permittee must not discharge into the ambient air any objectionable odorous air contaminant which measures seven odor concentration units or greater.

Applicable requirement: NDAC 33.1-15-16