April 12, 2022

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324

RE: Alliance Pipeline, L.P.
    Towner Compressor Station
    Permit No T5-O02002
    Title V Operating Permit Renewal Application

Enclosed is a Title V operating permit renewal application for Alliance Pipeline’s (Alliance) Towner Compressor Station in Towner, McHenry County, North Dakota. The facility currently operates under Permit No. T5-O02002 for one (1) natural gas-fired combustion turbine (EU/EP 1), two (2) natural gas-fired boilers (EU/EP 2), and one (1) natural gas-fired emergency generator (EU/EP 3). Alliance is submitting this Title V operating permit renewal application for the existing permit which expires on October 15, 2022.

Should you have any question on the application contained, please do not hesitate to reach out to me via email at chuck.zukor@enbridge.com or telephone at (713) 627-5791.

Sincerely,

Sr. Engineer
S&R/Air Projects
TITLE V PERMIT RENEWAL APPLICATION

Alliance Pipeline, LP
Towner Compressor Station

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1. EXECUTIVE SUMMARY

1.1 Introduction

Alliance Pipeline, LP (Alliance) owns and operates a natural gas compressor station located in Towner, McHenry County, North Dakota (the Facility). The Facility compresses and transports natural gas through an interstate natural gas pipeline originating in Canada and extending south to the state of Illinois.

The Facility currently operates under Title V operating permit T5-O02002. The operating permit was issued by the North Dakota Department of Environmental Quality (NDDEQ) on October 31, 2017. The permit expires on October 15, 2022. In accordance with Condition No. 9.A. of the permit, a renewal application must be submitted not less than 6 months prior to the permit expiration date (i.e. due by April 15, 2022).

Additionally, Alliance is proposing certain reconciliatory updates as described in Section 2.2 of this application.

1.2 Title V Permit Renewal Application Organization

This Title V permit renewal application consists of the following sections:

- Section 2 provides a facility description and proposed reconciliatory changes;
- Section 3 contains a regulatory applicability analysis;
- Appendix A contains a general process flow diagram, area map of station location, and aerial view of the compressor station layout;
- Appendix B contains NDDEQ’s air permit application form;
- Appendix C contains the Title V permit markup; and
- Appendix D contains detailed emissions calculations.
2. FACILITY DESCRIPTION AND PROPOSED PERMIT CHANGES

2.1 Facility Description

The Facility is covered under Standard Industrial Classification (SIC) Code 4922 for natural gas transmission. The station is located in a rural area near 5792 Seventh Ave NE, in Towner ND. McHenry County is currently classified as an attainment or unclassified area for all criteria pollutants.\(^1\) Currently, the Facility employs one 31,400 bhp natural gas-fired, General Electric (GE) Model LM2500 DLE turbine (EU/EP 1) to recompress and move natural gas through transmission pipelines. The line pressure must be maintained in order to ensure natural gas moves with sufficient volumes for reliable service at all delivery points.

The site includes additional support equipment such as two, Parker T3600 natural gas-fired boilers each rated at 2.455 MMBtu/hr (EU/EP 2)\(^2\), and a 4-stroke rich-burn (4SRB), Cummins GTA28, 531 bhp natural gas-fired emergency generator (EU/EP 3). The combustion turbine, boilers, and emergency reciprocating engine exclusively burn pipeline quality natural gas from Alliance’s pipeline network. The emergency generator is maintained on-site and used to generate emergency power in the event of a loss of electrical power from the utility grid.

The site also includes ancillary operations such as various organic liquid storage tanks, and truck loading operations for the transport of organic liquids off-site. Emissions result from the atmospheric tanks as tank working/breathing losses, and fugitive losses associated with tank truck loading operations. These ancillary operations are all considered as Insignificant Activities.

The site has the following process and storage tanks onsite:

- 2,780 gallon aboveground, Mineral Oil Turbine Process Tank
- 120 gallon aboveground, Synthetic Oil Turbine Process Tank
- 50 gallon aboveground, Diesel Fuel Tank
- 2,540 gallon underground, Fuel Gas Skid Drain Tank TK-0550
- 2,540 gallon underground, Compressor Washdown Tank TK-0570
- 2,540 gallon underground, Glycol Tank TK-0580
- 1,130 gallon underground, Utility Building/Shop Washdown Tank TK-0590
- 1,130 gallon aboveground, Inlet Scrubber Tank TK-0510

Station operations also result in releases of pipeline quality natural gas. Periodically, blowdown and purges of natural gas from process lines and equipment are required because of normal operations, process startups/shutdowns, compressor seal vent, routine maintenance, and/or emergency venting (GR).


\(^2\) The Parker T3600 units are commonly referred as “boilers” but they do not generate steam. Rather, the units are process heaters for recirculated warm glycol solution.
Routine station operations result in process fugitive VOC emissions from piping equipment components in various types of fluid service (i.e., natural gas service [NG], pipeline liquids service [PL], and lube oil service [LO]).

Emission sources currently permitted under the Towner Title V operating permit No. T5-O02002 include:

- One 31,400 bhp natural gas-fired, GE Model LM2500 DLE turbine (EU/EP 1);
- Two 2.455 MMBtu/hr natural gas-fired, Parker T3600 boilers (EU/EP 2); and
- One 531 bhp natural gas-fired, Cummins GTA emergency generator (EU/EP 3).
- Most of the remaining support equipment and activities described above are exempt from inclusion in the Title V operating permit.

Appendix A provides a general process flow diagram of the permitted emission sources.

### 2.2 Proposed Permit Changes

As part of this permit renewal application, the following permit updates are requested:

In June of 2018, Alliance conducted an environmental self-audit per NDCC 32-40.2 at the Towner compressor station. During the audit, Alliance found that various emission activities, such as Gas Releases were not specified as permitted activities. The self-audit results were reported to the agency on August 23, 2018. These emission sources are not subject to any state or Federal requirements. Thus, the agency determined the emission sources should be added during the next air permit renewal period.

- This permit renewal application is providing updated information on emission estimates associated with station and pipeline natural gas releases (GR), which are related to routine facility operations (i.e., compressor seals, turbine/compressor startup and shutdown operations, other process equipment blowdowns/purges, and other gas releases associated with station operations:

  - Gas releases are estimated for three different categories:
    - **Compressor Seal Vent** – 15.60 tpy of VOC: (EP 4)
      - Low volumetric flow and near continuous flow.
      - Source is leakage from rotating shaft equipped with lower emitting dry gas seals.
    - **Compressor Unit Blowdowns/Purges** – 33.76 tpy of VOC: (EP 5)
      - Moderate volumetric flow, but intermittent frequency associated with equipment start-up, shutdown, and maintenance activities.
      - Source is turbine starter gas, compressor shutdown blowdowns/purges, process equipment maintenance and repair activities requiring equipment blowdowns/purges.
    - **Station Wide Blowdowns/Purges** – 6.55 tpy of VOC: (EP 6)
      - Larger volumetric flow, but infrequent frequency associated with station wide equipment start-up, shutdown, and maintenance activities.
      - Source is shutdown blowdowns and start-up purges of station-wide process equipment requiring maintenance and repair activities.
Table 2-1. Gas Release Stack Parameters

<table>
<thead>
<tr>
<th>ID</th>
<th>Source Name</th>
<th>Stack Height (ft)</th>
<th>Stack Diameter (ft)</th>
<th>Hourly Exhaust Flow (scf/hour)</th>
<th>Annual Exhaust Flow (scf/year)</th>
<th>Frequency of Flow</th>
<th>Exhaust Temp (deg F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP 4</td>
<td>Compressor Seal Vent</td>
<td>35</td>
<td>0.2</td>
<td>500</td>
<td>3,685,931</td>
<td>Near Continuous</td>
<td>77</td>
</tr>
<tr>
<td>EP 5</td>
<td>Compressor Unit Blowdowns/Purges</td>
<td>14</td>
<td>4.0</td>
<td>319,106</td>
<td>7,977,640</td>
<td>Intermittent</td>
<td>77</td>
</tr>
<tr>
<td>EP 6</td>
<td>Station Wide Blowdowns/Purges</td>
<td>6</td>
<td>0.7</td>
<td>309,514</td>
<td>1,547,570</td>
<td>Intermittent</td>
<td>77</td>
</tr>
</tbody>
</table>

- This permit application is updating the methodology used for estimating potential gas release emissions at the Facility.
  - The updated methodology, is based on a detailed analysis of operations at other similar compressor stations,
  - Provides an improved representation on the volume quantity of gas releases, and
  - Improved representation of natural gas physical characteristics and VOC/HAP composition.

- There has been no physical change made to the operations associated with various types of natural gas releases since the Facility began operations in 2000.

- Reconcile fugitive emission estimates associated with piping equipment components (e.g., valves, flanges, connectors, etc.):
  - The updated methodology, based on a detailed analysis of operations at other similar compressor stations.
  - Provides an improved representation for estimating equipment component counts in each type of fluid service (e.g., natural gas (NG), pipeline liquids (PL), and lube oil (LO)).
  - Improved representation of natural gas physical characteristics and VOC/HAP composition.
  - There has been no physical change made to the operations associated with various types of natural gas releases since the Facility began operations in 2000.

- Updated list of storage tanks and truck loading operations at the Facility. These emission sources have historically been considered insignificant activities or exempt from air permitting.

## 2.3 New Regulatory Requirements

There are no proposed changes to add any new state or federal regulatory requirements to the renewed permit. The only permit conditions updates will be any application conditions to address the emission sources described in Section 2.2 (above). All remaining conditions in the existing permit will be unchanged.
2.4 Emissions Summary

A summary of the facility-wide potential-to-emit (PTE) emission is presented in Table 2-2.

- The Towner compressor station is an existing minor source (i.e., <250 tpy for all criteria pollutants) under the Prevention of Significant Deterioration (PSD) program (40 CFR Part 52).
- The facility continues to be an existing major source under the Title V Operating permit program (40 CFR Part 70) due to the site-wide NOx PTE being >100 tpy.
- The facility is also an existing area source of Hazardous Air Pollutants (HAPs) with PTEs <10 tpy for any single HAP and <25 tpy for total HAP.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Currently Permitted Facility-wide Emissions (tpy) (^a)</th>
<th>Proposed Facility-wide Emissions (tpy) (^b)</th>
<th>Change in Facility-wide Emissions (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(_{10})</td>
<td>6.2</td>
<td>6.2</td>
<td>0.00</td>
</tr>
<tr>
<td>PM(_{2.5})</td>
<td>6.2</td>
<td>6.2</td>
<td>0.00</td>
</tr>
<tr>
<td>SO(_2)</td>
<td>17.5</td>
<td>17.5</td>
<td>0.00</td>
</tr>
<tr>
<td>NO(_x)</td>
<td>171.2</td>
<td>171.2</td>
<td>0.00</td>
</tr>
<tr>
<td>VOC</td>
<td>2.1</td>
<td>69.0</td>
<td>+66.90</td>
</tr>
<tr>
<td>CO</td>
<td>93.8</td>
<td>93.8</td>
<td>0.00</td>
</tr>
<tr>
<td>Total HAP</td>
<td>1.0</td>
<td>3.18</td>
<td>+2.18</td>
</tr>
</tbody>
</table>

\(^a\) Based on 7/8/2015 Potential to Emit emission calculations, which excludes emissions from gas releases and piping equipment components, and excludes exempt sources - storage tanks and truck loading operations.

\(^b\) Includes VOC and HAP emission contributions from gas releases and piping equipment components.

The overall calculation methodology associated with each emission source listed in the current permit remains unchanged, except for the reconciled emission estimates represented in Section 2.2. Detailed emissions calculations are provided in Appendix D of this application.
3. APPLICABLE REGULATORY DISCUSSION

This section documents the applicability determinations made for Federal and State air quality regulations. Specifically, this section summarizes the air permitting requirements and key air quality regulations that apply to operations at the Towner Station. Applicability of the following regulatory programs is addressed:

- Title V of the 1990 CAA Amendments;
- Compliance Assurance Monitoring (CAM);
- New Source Review, including Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review programs (NNSR);
- New Source Performance Standards (NSPS);
- National Emission Standards for Hazardous Air Pollutants (NESHAP); and
- North Dakota State regulations.

This discussion also provides non-applicability determinations, where relevant, to confirm that identified regulations are not applicable to the Towner Station.

None of the regulations addressed in this section are new, and none of the discussion reflects changes to regulatory applicability compared to what is in Towner Station’s current Title V permit.

3.1 Title V Operating Permit Program

40 CFR Part 70 establishes the federal operating permits program. The program was established as part of the 1990 Clean Air Act Amendments and is in the Federal regulations at 40 CFR Parts 70 and 71. The program requires that all new and existing major sources of air emissions obtain federally approved state administered operating permits. A major source as defined under the program is a facility that has the potential to emit either more than 100 tpy for any criteria pollutant, more than 10 tpy for any single hazardous air pollutant (HAP), or more than 25 tpy for all HAP. Greenhouse gases (GHG) have been regulated under the operating permit program beginning with the issuance of U.S. EPA’s Tailoring Rule; however, the Supreme Court of the United States (SCOTUS) issued a ruling limiting U.S. EPA’s authority to regulate GHG under this program. Therefore, GHG shall not be treated for purposes of determining a major source under the program. As shown in Table 2-2, potential emissions of NOx are above the major source thresholds. Therefore, the Facility is subject to the federal Title V operating permit program.

3.2 Compliance Assurance Monitoring

U.S. EPA promulgated the Compliance Assurance Monitoring (CAM) rule at 40 CFR Part 64 on October 22, 1997. U.S. EPA developed the regulation as a means for providing reasonable assurance that an emissions unit is in continuous compliance with applicable requirements for affected units located at major stationary sources subject to Title V permitting (40 CFR 64.2). CAM requirements apply to units that are subject to an emission limitation or standard, use a control device to meet these limits, and have potential pre-control emissions equal to or greater than major source thresholds.

The gas-fired turbine is equipped with “dry low NOx” (DLN) technology to reduce the formation of NOx.
The definition of control device for CAM, in §64.1 Definitions, excludes controls that prevent pollutants from forming. The turbine does not have downstream controls, only the DLN technology. Therefore, the turbine is not subject to requirements under CAM.

The two small boilers are also not equipped with any air pollution control equipment and are therefore not subject to CAM.

3.3 New Source Review

Federal construction permitting programs regulate new sources of attainment pollutants under Prevention of Significant Deterioration (PSD) and new sources of non-attainment pollutants under Non-Attainment New Source Review (NNSR). PSD and NNSR regulations apply when a major source makes a change, such as installing new equipment or modifying existing equipment, and a significant increase in emissions results from the change. Towner Station is located in McHenry County, which is in attainment for all pollutants. Therefore, NNSR is not potentially applicable for the station. Towner Station has site level (i.e., facility wide) NOx emissions greater than the Title V major source threshold of 100 tpy, but less than the PSD major source threshold of 250 tpy.3 Towner Station’s PTE is also less than 250 tpy for all other criteria pollutants. Therefore, Towner Station is not a major source under the PSD program. This air permitting action (i.e., a Title V renewal application) does not represent any physical changes or significant modifications to the station. Thus, PSD is not triggered by this permitting action.

3.4 New Source Performance Standards (NSPS)

New Source Performance Standards, located in Title 40 of the Code of Federal Regulations Part 60 (40 CFR 60), require new, modified, or reconstructed sources in applicable source categories to control emissions to the level achievable by the best demonstrated technology as specified in the applicable provisions. Any source which is subject to provisions under an NSPS subpart is also subject to the general provisions of NSPS Subpart A, except as noted in the applicable subpart. Potentially applicable NSPS standards to the turbines and boilers at the Towner Station include:

- 40 CFR 60 Subpart Db – Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60 Subpart Dc – Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60 Subpart Kb - Volatile Liquid Storage Vessels
- 40 CFR 60 Subpart Kb - Volatile Liquid Storage Vessels
- 40 CFR 60 Subpart GG – Stationary Gas Turbines
- 40 CFR 60 Subpart JJJJ – Spark Ignition Internal Combustion Engines
- 40 CFR 60 Subpart KKKK – Stationary Combustion Turbines
- 40 CFR 60 Subparts OOOO and OOOOa – Natural Gas Production, Transmission, and Distribution

3.4.1 40 CFR 60 Subpart Db – NSPS for Industrial-Commercial-Institutional Steam Generating Units

NSPS Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units provides standards for steam generating units with a heat input capacity greater than 100 MMBtu/hr

3 Note that natural gas compressor stations are not on the list of source categories that has a lower (100 tpy) PSD major source threshold.
that commenced construction, reconstruction, or modification after June 19, 1984. The Towner Station has two "boilers" (i.e., process heaters – no steam generation), and each with a maximum rated heat capacity of 2.7 MMBtu/hr. Therefore, NSPS Subpart Db does not apply.

3.4.2 40 CFR 60 Subpart Dc – NSPS for Small Industrial- Commercial- Institutional Steam Generating Units

NSPS Subpart Dc – Standards of Performance for Small Industrial- Commercial- Institutional Steam Generating Units applies to steam generating units constructed, modified, or reconstructed after June 9, 1989, and that have a maximum rated heat input capacity greater than or equal to 10 MMBtu/hr and less than 100 MMBtu/hr. As mentioned previously, the Towner Station has two "boilers" (i.e., process heaters – no steam generation), each with a maximum rated heat capacity of 2.7 MMBtu/hr. Therefore, NSPS Subpart Dc does not apply to the Towner Station.

3.4.3 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Liquid Storage Vessels

NSPS Subpart 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 outlines performance standards for volatile organic liquids (VOL) storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984. However, this regulation does not apply to storage vessels with a capacity less than 75 m³ (approximately 20,000 gallons). Therefore, this regulation is not applicable to storage vessels at the Facility.

3.4.4 40 CFR 60 Subpart GG – NSPS for Stationary Gas Turbines

NSPS Subpart GG applies to gas-fired turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr (based on lower heating value) for which construction, reconstruction, or modification is commenced after October 3, 1977. The GE turbine (EU/EP 1) has a capacity exceeding 10 MMBtu/hr and was installed after 1977. Therefore, the GE turbine is subject to NSPS Subpart GG and will continue to comply with the requirements listed in the existing permit.

3.4.5 40 CFR 60 Subpart JJJJ – NSPS for Spark Ignition Reciprocating Engines

NSPS Subpart JJJJ applies to owners and operators of stationary spark ignition (SI) engines constructed, reconstructed, or modified after June 12, 2006 where construction is the date the engine is ordered by the owner or operator, and manufactured after:

- July 1, 2007, for SI engines with a design rating greater than or equal to 500 hp (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP),
- January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP,
- July 1, 2008, for SI engines with a design rating less than 500 hp, or
- January 1, 2009, for SI emergency engines with a maximum engine power greater than 25 hp.

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4 The Parker T3600 units are commonly referred as "boilers" but they do not generate steam. Rather, the units are process heaters for recirculated warm glycol solution.

5 40 CFR 60.4230(a)(4)(iii)&(iv)
The Towner Station operates one emergency generator engine, the Cummins GTA (EU/EP 3), which was installed prior to 2006 and as such is not subject to NSPS Subpart JJJJ requirements.

3.4.6 40 CFR 60 Subpart KKKK – NSPS for Stationary Combustion Turbines

In accordance with 40 CFR 60.4305(a), NSPS Subpart KKKK applies to each stationary combustion turbine with a heat input at peak load equal to or greater than 10 MMBtu/hr based on the higher heating value of the fuel, and which commenced construction, modification, or reconstruction after February 18, 2005. The GE turbine (EU/EP 1) has a heat input greater than 10 MMBtu/hr but was constructed in 2000 and has not been modified or reconstructed since that date. Therefore, 40 CFR 60 Subpart KKKK does not apply.

3.4.7 40 CFR Subpart OOOO – Natural Gas Production, Transmission and Distribution

NSPS Subpart OOOO establishes emission standards and compliance schedules for the control of VOC and SO₂ emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015. Affected facilities include certain units and operations located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment.

Under NSPS Subpart OOOO, the only affected facilities in the natural gas transmission and storage segment are storage vessels that have the potential for VOC emissions equal to or greater than 6 tpy. The Towner Station does not operate any storage vessels which have the potential to emit 6 tpy or more of VOC. Also, units at the facility were put into operation before August 23, 2011 and have not been modified or reconstructed since installation. Therefore, NSPS Subpart OOOO does not apply to the Towner Station.

3.4.8 40 CFR Subpart OOOOa – Natural Gas Production, Transmission and Distribution

40 CFR 60, Subpart OOOOa applies to affected facilities that commence construction, modification, or reconstruction after September 18, 2015. On May 12, 2016, the rule was finalized and published in the federal register on June 3, 2016. While U.S. EPA previously issued a final rule in 2020 that removed the natural gas transmission segment from Subpart OOOOa,⁶ a joint resolution of Congress recently disapproved this “2020 Policy Rule”⁷. The impact of the recent joint resolution is that Subpart OOOOa applicability to the natural gas transmission segment comes back into effect immediately upon enactment. The Towner Station and its operations are located in the natural gas transmission segment.

The collection of fugitive components from a new or modified natural gas compressor stations are subject to LDAR-like requirements under NSPS OOOOa. The collection of fugitive components would be considered a “modified” affected facility if either of the following conditions are met (per 40 CFR 60.5365a(j)):

1. An additional compressor is installed, or

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2. One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced.

When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for purposes of § 60.5397a. All compressors at the Towner Station were put into operation before September 18, 2015 and have not been modified or reconstructed since the rule’s applicability date. Therefore, Towner Station’s fugitive components are not subject to Subpart OOOOa.

Additionally:

- Towner Station does not operate any storage vessels which have the potential to emit 6 tpy or more of VOC. Also, units at the facility were put into operation before September 18, 2015 and have not been modified or reconstructed since the rule’s applicability date.
- There are no existing pneumatic pumps at Towner Station and none have been constructed since the effective date of this rule.
- There are no existing continuous bleed pneumatic controllers at Towner Station and none have been constructed since the effective date of this rule.

Therefore, Subpart OOOOa does not apply to affected facilities at the Towner Station at this time.

3.5 National Emission Standards for Hazardous Air Pollutants

National Emission Standards for Hazardous Air Pollutants (NESHAP) are applicable to sources of HAP emissions. The NESHAP regulations in 40 CFR Part 61 are pollutant-specific, while 40 CFR Part 63 are source type-specific with emission limits based on the maximum achievable control technology (MACT) determination for an affected source. The Towner Station is an area source with respect to HAP because potential emissions are less than 10 tpy for an individual HAP and 25 tpy for total HAP. Potentially applicable NESHAP standards to the turbine and boilers at the Towner Station include:

- 40 CFR 63 Subpart HH – Oil and Natural Gas Production Facilities
- 40 CFR 63 Subpart HHH – Natural Gas Transmission and Storage Facilities
- 40 CFR 63 Subpart YYYY – Stationary Combustion Turbines
- 40 CFR 63 Subpart ZZZZ – Reciprocating Internal Combustion Engines
- 40 CFR 63 Subpart DDDDD – Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
- 40 CFR 63 Subpart JJJJJJ – Industrial, Commercial, and Institutional Boilers (Area Sources)

3.5.1 40 CFR 63 Subpart HH – NESHAP for Oil and Natural Gas Production Facilities

NESHAP Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities applies to owners and operators of glycol dehydration units, storage vessels, compressors, and triethylene glycol units at oil and natural gas production facilities (area and major HAP sources). An oil and natural gas production facility is one that processes, upgrades, or stores hydrocarbon liquids. The Towner Station is a natural gas transmission and storage facility and is not a natural gas production facility. Therefore, NESHAP Subpart HH does not apply to the Towner Station.
3.5.2 40 CFR 63 Subpart HHH – NESHAP for Natural Gas Transmission and Storage Facilities

NESHAP Subpart HHH – *National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities* applies to natural gas transmission and storage facilities located at HAP major sources. The affected source, as defined in §63.1270(b), is each new and existing glycol dehydration unit. The Towner Station is an area source of HAP (i.e., not a major source of HAP). Therefore, NESHAP Subpart HHH is not applicable at the Towner Station.

3.5.3 40 CFR 63 Subpart YYYY – NESHAP for Stationary Combustion Turbines

Stationary combustion turbines located at a major source of HAPs are required to comply with this subpart. The Facility is an area source of HAPs; therefore, this regulation does not apply.

3.5.4 40 CFR 63 Subpart ZZZZZ – Reciprocating Internal Combustion Engines

NESHAP Subpart ZZZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* applies to reciprocating internal combustion engines (RICE) located at a major or area source of HAP emissions, unless the engines meet one of the exceptions in 40 CFR 63.6590(b) or (c). The Towner Station operates one affected SI-RICE, a Cummins GTA28 natural gas-fired emergency engine rated at 531 HP, that does not meet any of the exceptions in the rule. Therefore, the emergency engine is subject to Subpart ZZZZZ.

3.5.5 40 CFR 63 Subpart DDDDDD – Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

NESHAP Subpart DDDDDD – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* applies to industrial, commercial, institutional boilers, and process heaters of various sizes and fuel types at major sources of HAP. The Towner Station is an area source of HAP emissions. Therefore, NESHAP Subpart DDDDDD is not applicable.

3.5.6 40 CFR 63 Subpart JJJJJJ – Industrial, Commercial, and Institutional Boilers (Area Sources)

NESHAP Subpart JJJJJJ – *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* applies to industrial, commercial, and institutional boilers of various sizes and fuel types at an area source of HAP emissions. The Towner Station is an area source of HAP emissions. Pursuant to 40 CFR 63.11195(e), a gas fired boiler is not subject to Subpart JJJJJJ. The two boilers at Towner Station are gas fired. Therefore, NESHAP Subpart JJJJJJ is not applicable to the Towner Station.

3.6 State Regulatory Applicability

North Dakota air rules fall under two main categories: those regulations that are generally applicable (e.g., permitting requirements) and those that have specific applicability (e.g., PM standards for processes). The generally applicable requirements are straightforward (e.g., filing of emission statements, permit fees, etc.) and, as such, are not discussed in further detail.

3.6.1 Federal Regulations Incorporated by Reference

The Towner Station is not subject to any additional air-related federal requirements beyond those covered in the Federal Regulations in Section 3 for these State Air Regulations.
3.6.2 NDAC 33.1-15-03 - Restriction of Emission of Visible Contaminants

NDAC Article 33.1-15-03 establishes standards for visible air contaminants from new and existing installations, fugitive emissions, and flares. As noted in NDAC 33.1-15-01, “new” means equipment, machines, devices, articles, contrivances, or installations built or installed on or after July 1, 1970. The turbine, boilers, and emergency engine comply with the opacity requirements in NDAC 33.1-15-03-02, and do not emit any air contaminant which exhibits an opacity greater than twenty percent, except for one six-minute period per hour of up to forty percent. In addition, the fugitive emissions associated with the equipment leak components will comply with the restrictions applicable to fugitive emissions listed in NDAC 33.1-15-03-03, and will limit the opacity to less than or equal to forty percent for more than one six-minute period per hour.

3.6.3 NDAC 33.1-15-05 – Emissions of Particulate Matter Restricted

This rule contains emissions limits for process equipment that use solid and liquid fuel burning equipment. As all fuel burning equipment are combusting gaseous fuel only, the facility is exempt from the emission limits in this rule [33.1-15-05-02(1)(c)].

3.6.4 NDAC 33.1-15-06 – Emissions of Sulfur Compounds Restricted

This rule contains emission limits for fuel burning equipment used for heating where sulfur emissions are dependent upon the sulfur content of the fuel. Units that combust pipeline-quality natural gas are exempt from this rule [33.1-15-06-01(1)(e)]. All facility combustion units combust pipeline-quality natural gas, and therefore are exempt from this rule.

3.6.5 NDAC 33.1-15-07 – Control of Organic Compounds Emissions

Alliance is subject to the requirements for controlling organic compound emissions as described under NDAC 33.1-15-07.

3.6.6 NDAC 33.1-15-12 - Standards of Performance for New Stationary Sources

NDAC Article 33.1-15-12 incorporates by reference the NSPS subparts presented in 40 CFR 60. The applicability of this section is described in Section 3.1, above.

3.6.7 NDAC 33.1-15-13 – Emission Standards for Hazardous Air Pollutants

NDAC Article 33.1-15-13 incorporates by reference the NESHAP subparts listed in 40 CFR 61. The applicability of this section is described in Section 3.1, above.

3.6.8 NDAC 33.1-15-14 – Designated Air Contaminant Sources, Permit to Construct, Minor Source Permit to Operate, Title V Permit to Operate

NDAC Article 33.1-15-14 establishes rules for various permit types. As noted in Section 3.1, the facility remains a major source under the Title V Program, and is therefore required to submit a Title V Permit Application. This permit application addresses the requirement to submit a revised Title V Permit application as required by NDAC Article 33.1-15-14-06.4(a)(1).

In accordance with 33.1-15-14-06.4 – Insignificant Units, the Facility operates several ancillary pieces of equipment that are excluded from requiring a permit to construct or operate as detailed in Error! Reference source not found..
Table 3-1. List of Emission Unit or Activities Not Required to be Listed in Permit Application

<table>
<thead>
<tr>
<th>Emission Source Description</th>
<th>Citation</th>
<th>Exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boilers (EU/EP2)</td>
<td>33.1-15-14-02.13.b.</td>
<td>Fossil fuel burning equipment, other than smokehouse generators, which meet all of the following criteria: (1) The heat input per unit does not exceed 10 MMBtu/hr. (2) The total aggregate heat input from all equipment does not exceed 10 MMBtu/hr. (3) The actual emissions, as defined in chapter 33.1-15-15, from all equipment do not exceed 25 tpy of any air contaminant and the potential to emit any air contaminant for which an ambient air quality standard has been promulgated in chapter 33.1-15-02 is less than 100 tpy.</td>
</tr>
<tr>
<td>Eight (8) Storage Vessels</td>
<td>33.1-15-14-02.13.i.(5)</td>
<td>Containers, reservoirs, or tanks used exclusively for: (1) Dipping operations for coating objects with oils, waxes, or greases, if no organic solvents are used. (2) Dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents. (3) Storage of butane, propane, or liquefied petroleum or natural gas. (4) Storage of lubricating oils. (5) Storage of petroleum liquids except those containers, reservoirs, or tanks subject to the requirements of chapter 33.1-15-12.</td>
</tr>
</tbody>
</table>

Emission units or activities listed within NDDEQ 33.1-15-14-02.13 are not required to be listed in the construction or operating permit application.

3.6.9 NDAC 33.1-15-15 – Prevention of Significant Deterioration of Air Quality

NDAC Article 33.1-15-15 incorporates by reference the PSD requirements listed in 40 CFR Part 52. The applicability of this section is described in Section 3.3, above.

3.6.10 NDAC 33.1-15-16 - General Odor Restrictions

This subpart restricts the release of objectionable odors, including hydrogen sulfide. Alliance will take measures to minimize objectionable odors at the site.

3.6.11 NDAC 33.1-15-17 – Restriction of Fugitive Emissions

NDAC article 33.1-15-17 states that fugitive emissions may not be emitted which exceed ambient air quality standards at or beyond the property line of the source, or infringe on 33.1-15-15, 33.1-15-03, and 33.1-15-16. Alliance will ensure their impacts remain below these thresholds and restrictions where applicable.


NDAC Article 33.1-15-22 incorporates by reference the NESHAP subparts listed in 40 CFR 63. The applicability of this section is described in Section 3.5, above.
APPENDIX A: PROCESS FLOW DIAGRAM
Area Map of Compressor Station Location

Aerial View of Compressor Station Layout
APPENDIX B: NDDEQ TITLE V PERMIT APPLICATION FORM
Air Title V Operating Permit (AOP) - Renewal
version 2.3

(Submission #: HPG-VZ5R-VYENY, version 1)

Details

Submission ID  HPG-VZ5R-VYENY
Status            Draft

Form Input

Form Instructions

In accordance with 33.1-15-14-04.c. of the North Dakota Air Pollution Control Rules, a Title V permit renewal application must be submitted to the Department at least six months, but no more than eighteen months, prior to the expiration date. Permit renewal applications are incomplete unless all information requested in SFN 52824 is supplied. The current Title V permit will be the baseline reference for a renewal. The requirements (40 CFR 70.5(c) & NDAC 33.1-15-14-06.4.c) to include a citation and description of all applicable requirements and a description of or reference to any applicable test method for determining compliance with each applicable requirement may be met by accomplishing either or both of the following: 1) provide an annotated (red-lined) copy of the current permit indicating all changes needed to reflect the current facility configuration, applicable requirements and test methods; 2) provide a narrative that conveys all changes needed to the current permit to reflect the current facility configuration, all applicable requirements and test methods.

FOR ACID RAIN UNITS ONLY – Submit with the Title V permit renewal application all Acid Rain renewal applications (the Acid Rain Permit Application, the Phase II NOx Compliance Plan, and if applicable, the Phase II NOx Averaging Plan).
When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Section A - Permit Information

Permit Number
AOP-28398

Permit Version
4

Issue Date
10/31/2017

Expiration Date
10/15/2022

Permittee

Company Name
Alliance Pipeline, L.P.

Address
6385 Old Shady Oak Rd Ste 150
Eden Prairie, MN 55344
United States
Responsible Official

<table>
<thead>
<tr>
<th>Prefix</th>
<th>NONE PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>Michael</td>
</tr>
<tr>
<td>Last Name</td>
<td>Greenway</td>
</tr>
<tr>
<td>Title</td>
<td>Director Field Operations Alliance Pipeline</td>
</tr>
<tr>
<td>Phone Type</td>
<td>Business</td>
</tr>
<tr>
<td>Number</td>
<td>615-872-5159</td>
</tr>
<tr>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:Mike.Greenway@enbridge.com">Mike.Greenway@enbridge.com</a></td>
</tr>
<tr>
<td>Address</td>
<td>200,425 - 1st Street Sw</td>
</tr>
<tr>
<td></td>
<td>Calgary, Alberta T2P3L8</td>
</tr>
<tr>
<td></td>
<td>Canada</td>
</tr>
</tbody>
</table>
Contact Person for Air Pollution Matters

Prefix
NONE PROVIDED

First Name    Last Name
Phillip       Wiedenfeld

Title
Supervisor Monitoring & Reporting

Phone Type    Number      Extension
Business      713-627-6608

Email
phillip.wiedenfeld@enbridge.com

Address
5400 Westheimer Court
Houston, TX 77056
USA

Section B (Part 1) - Facility Information

Facility Name
Alliance Pipeline, L.P. - Towner Compressor Station

Have you added, removed, or made any modifications to equipment since your last operating permit issuance?
No

Is this source subject to Title IV Acid Rain regulations?
No

Is this a portable source?
No
**Facility Location**

5792 Seventh Avenue NE  
Towner, ND 58788  
United States

**County**  
McHenry

**Facility Location:**  
48.25164700000000,-100.42856400000000

**Section B (Part 2) - Additional Location Information**

<table>
<thead>
<tr>
<th>Qtr Qtr</th>
<th>Qtr</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE PROVIDED</td>
<td>NW</td>
<td>15</td>
<td>155N</td>
<td>76W</td>
</tr>
</tbody>
</table>

**Land area at facility site (indicate whether measurement is in acres or sq. ft.)**  
NONE PROVIDED

**MSL elevation at facility**  
NONE PROVIDED

**Section C - Nature of Business**

**General Nature of Business**

<table>
<thead>
<tr>
<th>Describe Nature of Business</th>
<th>NAICS Code</th>
<th>SIC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor Station</td>
<td>486210-Pipeline Transportation of Natural Gas</td>
<td>4922-Natural Gas Transmission</td>
</tr>
</tbody>
</table>

**Actual Start of Construction Date**  
NONE PROVIDED
Actual End of Construction Date
NONE PROVIDED

Facility Startup Date
NONE PROVIDED

Section D - Process Equipment Information (1 of 1)

Emission Unit -

Emission Unit ID
NONE PROVIDED

Emission Unit Description
NONE PROVIDED

Emission Point ID
NONE PROVIDED

Emission Point Description
NONE PROVIDED

Emission Process Description
NONE PROVIDED

Emission Unit Status
NONE PROVIDED

Applicable PTCs

<table>
<thead>
<tr>
<th>PTC Number</th>
</tr>
</thead>
</table>

Applicable Federal Air Programs
Emission Unit form
Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

**EMISSION UNIT FOR TITLE V PERMIT TO OPERATE (SFN61006)**

**Section F - Facility-Wide Applicable Regulations and Potential to Emit (PTE)**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Tons Per Year Without Fugitives</th>
<th>Tons Per Year With Fugitives</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>171.2</td>
<td>171.2</td>
</tr>
<tr>
<td>CO</td>
<td>93.8</td>
<td>93.8</td>
</tr>
<tr>
<td>VOCs</td>
<td>69</td>
<td>69</td>
</tr>
</tbody>
</table>
### Emission Calculations Document Upload

Using the attachment control below, upload emission calculations documents.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

**Attach Emission Calculations Documents**
- NONE PROVIDED
- Comment
  - NONE PROVIDED

### Section G - Compliance Schedule

**Will your facility be in compliance with all applicable requirements effective at the time of permit issuance?**
Yes

**Will your facility be in compliance with all applicable requirements effective after the time of permit issuance?**
Yes

### Section H - Flexible Permits

**Are you requesting a flexible permit?**
No
Section I - Compliance Assurance Monitoring (CAM)

To determine if your facility is subject to CAM, review the information provided at the following link. Compliance Assurance Monitoring (CAM) Guidance

Is the facility identified in this application in compliance with applicable monitoring and compliance certification requirements?
Compliance Assurance Monitoring (CAM) not applicable.

Section K - Redline Permit Upload

Use the attachment control below to upload a redline version of your existing permit document, showing any changes.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attach redline version of permit here

Towner T5O02002_3_0_Redlined.pdf - 04/11/2022 03:30 PM
Comment
NONE PROVIDED

Section L - General Document Upload

File Upload
Use the attachment control below to upload any other information necessary for application review, such as plot plans, process diagrams, maps, etc.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.
Attachments

TOWN TV Permit Renewal 2022-0412.pdf - 04/12/2022 09:22 AM

Comment
NONE PROVIDED

Additional Forms
NONE PROVIDED

Attachments

<table>
<thead>
<tr>
<th>Date</th>
<th>Attachment Name</th>
<th>Context</th>
<th>User</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/12/2022 9:22 AM</td>
<td>TOWN TV Permit Renewal 2022-0412.pdf</td>
<td>Attachment</td>
<td>Russell Novotny</td>
</tr>
<tr>
<td>4/11/2022 3:30 PM</td>
<td>Towner T5O02002_3_0_Redlined.pdf</td>
<td>Attachment</td>
<td>Russell Novotny</td>
</tr>
</tbody>
</table>
APPENDIX C: TITLE V PERMIT MARK-UP
# AIR POLLUTION CONTROL
## TITLE V PERMIT TO OPERATE

<table>
<thead>
<tr>
<th>Permittee:</th>
<th>Permit Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
<td>T5-O02002</td>
</tr>
<tr>
<td>Alliance Pipeline, L.P.</td>
<td></td>
</tr>
<tr>
<td><strong>Address:</strong></td>
<td></td>
</tr>
<tr>
<td>6385 Old Shady Oak Road, Ste 150</td>
<td></td>
</tr>
<tr>
<td>Eden Prairie, MN 55344</td>
<td></td>
</tr>
<tr>
<td><strong>Source Location:</strong></td>
<td><strong>Source Name:</strong></td>
</tr>
<tr>
<td>NW¼, Sec. 15, T155N, R76W</td>
<td>Towner Compressor Station</td>
</tr>
<tr>
<td>5792 Seventh Avenue NE</td>
<td></td>
</tr>
<tr>
<td>Towner, ND 58788</td>
<td></td>
</tr>
<tr>
<td>McHenry County</td>
<td></td>
</tr>
<tr>
<td><strong>Source Type:</strong></td>
<td><strong>Expiration Date:</strong></td>
</tr>
<tr>
<td>Compressor Station</td>
<td>October 15, 2022</td>
</tr>
</tbody>
</table>

Pursuant to Chapter 23-25 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota, Article 33-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e. owner) designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions units at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Health and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal No. 3: 10/31/17  
Revision No. 0: ________________

Terry L. O'Clair, P.E.  
Director  
Division of Air Quality

---

Environmental Health  
Section Chief'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

Printed on recycled paper.
# Condition Table

<table>
<thead>
<tr>
<th>Condition</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emission Unit Identification</td>
<td>3</td>
</tr>
<tr>
<td>2. Restrictions and Miscellaneous Conditions</td>
<td>3</td>
</tr>
<tr>
<td>3. Applicable Standards</td>
<td>4</td>
</tr>
<tr>
<td>4. Emission Unit Limits</td>
<td>5</td>
</tr>
<tr>
<td>5. Monitoring Requirements and Conditions</td>
<td>5</td>
</tr>
<tr>
<td>6. Recordkeeping Requirements</td>
<td>6</td>
</tr>
<tr>
<td>7. Reporting</td>
<td>7</td>
</tr>
<tr>
<td>8. Facility Wide Operating Conditions</td>
<td>8</td>
</tr>
<tr>
<td>9. General Conditions</td>
<td>15</td>
</tr>
<tr>
<td>10. State Enforceable Only Conditions</td>
<td>20</td>
</tr>
<tr>
<td>(not Federally enforceable)</td>
<td></td>
</tr>
</tbody>
</table>
1. **Emission Unit Identification:**

The emission units regulated by this permit are as follows:

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>Emission Unit (EU)</th>
<th>Emission Point (EP)</th>
<th>Air Pollution Control Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electric Model LM2500 DLE combustion gas turbine with a nominal rating of at 31,400 bhp (206 MMBtu/hr LHV heat input) for the turbine/compressor unit (built 1999)</td>
<td>1</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Two natural gas-fired boilers with a nominal rating of 2,455,000 Btu/hr each</td>
<td>2 A</td>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>Natural gas-fired 4 SRB emergency generator engine with a nominal rating of 531 bhp (built 1999)</td>
<td>3 B</td>
<td>3</td>
<td>None</td>
</tr>
</tbody>
</table>

Add gas releases to the Emission Unit Identification Table

A  Insignificant or fugitive emission sources with no specific emission limit.

B  The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the applicable subpart (40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the RICE rules, 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, Subpart ZZZZ, §63.6640(f)].

2. **Restrictions and Miscellaneous Conditions:**

A. **Like-Kind Engine/Turbine Replacement:** This permit allows the permittee to replace the existing engine/turbine (to include turbine components) with a like-kind engine/turbine. Replacement is subject to the following conditions.

1) The Department must be notified within 10 days after change-out of the engine/turbine.

2) The replacement engine/turbine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine/turbine it is replacing.

3) The date of manufacture of the replacement engine/turbine must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.

4) The replacement engine/turbine is subject to the same state emission limits as the existing engine/turbine in addition to any NSPS or MACT emission limit that is applicable. Testing shall be conducted to confirm compliance with the emission limits within 180 days after start-up of the new engine/turbine.
5) If EU1 is modified or reconstructed, as defined in 40 CFR 60.2 and 60.15, the permittee shall comply with all applicable requirements of 40 CFR 60, Subpart KKKK.

Applicable Requirements: NDAC 33-15-14-06.5.b(1) & NDAC 33-15-12-02, Subpart KKKK

B. Fuel Restriction: EU1, EU2 and EU3 shall be operated using only pipeline quality natural gas containing no more than 2.0 grains of sulfur per 100 standard cubic feet.

Applicable Requirement: Permit to Construct (PTC) 99006

3. Applicable Standards:

A. New Source Performance Standards: The permittee shall comply with all applicable requirements of the following NDAC 33-15-12-02 and 40 CFR 60 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart GG - Standards of Performance for Stationary Gas Turbines (EU1).

Applicable Requirement: NDAC 33-15-12-02, Subparts A & GG

B. Maximum Achievable Control Technology: The permittee shall comply with all applicable requirements of the following NDAC 33-15-22-03 and 40 CFR 63 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU3). The North Dakota Department of Health has not adopted the area source provisions of this subpart. Please send all documentation to EPA at the following address:

U.S. EPA Region 8
1595 Wynkoop Street
Mail Code 8ENF – AT
Denver, CO 80202-1129

Applicable Requirement: 40 CFR 63, Subparts A & ZZZZ
4. Emission Unit Limits:

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>EU</th>
<th>EP</th>
<th>Pollutant/Parameter</th>
<th>Emission Limit</th>
<th>NDAC Applicable Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine</td>
<td>1</td>
<td>1</td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>A 83.0 lb/hr</td>
<td>Permit to Construct (PTC) 15074 &amp; 33-15-12, Subpart GG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1-hr avg.) &amp;</td>
<td>A 4.0 lb/hr</td>
<td>PTC99006 and 33-15-12, Subpart GG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>242 ppmvd &amp;</td>
<td>(1-hr avg.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>A either 150 ppmvd or may not burn any fuel which contains sulfur in excess of 0.8% by weight</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CO</td>
<td>20.0 lb/hr</td>
<td>PTC99006</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1-hr avg.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opacity</td>
<td>20%&lt;sup&gt;B&lt;/sup&gt;</td>
<td>33-15-03-02.2</td>
</tr>
<tr>
<td>Two natural gas-fired boilers</td>
<td>2</td>
<td>2</td>
<td>Opacity</td>
<td>20%&lt;sup&gt;B&lt;/sup&gt;</td>
<td>33-15-03-02</td>
</tr>
<tr>
<td>Emergency generator engine</td>
<td>3</td>
<td>3</td>
<td>Opacity</td>
<td>20%&lt;sup&gt;B&lt;/sup&gt;</td>
<td>33-15-03-02</td>
</tr>
</tbody>
</table>

A  PPMVD is from 40 CFR 60, Subpart GG; the more stringent limit applies. Limits apply at 15% oxygen and ISO standard day conditions. ISO standard day conditions means 288 degrees Kelvin, 60% relative humidity and 101.3 kilopascals pressure.

B  40% opacity is permissible for not more than one six-minute period per hour.

5. Monitoring Requirements and Conditions:

A. Requirements:

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>Pollutant/Parameter</th>
<th>Monitoring Requirement (Method)</th>
<th>Condition Number</th>
<th>NDAC Applicable Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine (EP1)</td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Emissions Test</td>
<td>4.B.1</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td></td>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>Fuel Monitoring</td>
<td>4.B.3</td>
<td>33-15-12-02, Subpart GG</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>Emissions Test</td>
<td>4.B.1</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td>Recordkeeping</td>
<td>4.B.2</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td>Emergency generator engine (EP3)</td>
<td>Opacity</td>
<td>Recordkeeping</td>
<td>4.B.2</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
</tbody>
</table>
B. Monitoring Conditions:

1) The permittee shall conduct an emissions test to measure NO\textsubscript{x} and CO emissions according to the following schedule:

   a) Conduct annual testing, not to exceed 13 months between tests; or
   b) Conduct testing when changes are made to the turbine that may increase emission rates, whichever is more frequent.

Tests shall be conducted using EPA Reference Methods in 40 CFR 60, Appendix A, or at a minimum a portable analyzer method approved by the Department. A test shall consist of three runs, with each run at least 20 minutes in length.

2) For purposes of compliance monitoring, burning of fuel as outlined in Condition 2 shall be considered credible evidence of compliance with the opacity limit. However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over burning of fuel as outlined in Condition 2 for evidence of compliance or noncompliance with the opacity limit in the event of enforcement action.

3) The permittee shall monitor the sulfur content of the fuel being fired in the turbine (EU1) as follows provided the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60, Section 60.331(u):

   a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
   b) Representative fuel sampling data which shows that the sulfur content of the gaseous fuel does not exceed 20.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR 75 is required.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a) & NDAC 33-15-12-02, Subpart GG

6. Recordkeeping Requirements:

A. The permittee shall maintain compliance monitoring records as outlined in the Monitoring Records Table that include the following information.

1) The date, place (as defined in the permit) and time of sampling or measurement.

2) The date(s) testing was performed.

3) The company, entity, or person that performed the testing.
4) The testing techniques or methods used.

5) The results of such testing.

6) The operating conditions (i.e., ambient conditions, horsepower calculations, suction/discharge pressures, testing rate compared to rated capacity, timing, air to fuel ratio and rpm) that existed at the time of sampling or measurement.

7) Records shall be kept as to the quantity of natural gas used.

Applicable Requirement: NDAC 33-15-14-06.5.a(3)(b)[1]

Monitoring Records Table

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Pollutant/Parameter</th>
<th>Compliance Monitoring Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine (EP1)</td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Emissions Test Data</td>
</tr>
<tr>
<td></td>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>Contract/Tariff Sheet or Fuel Analysis Data</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>Emissions Test Data</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td>Type of Fuel Usage</td>
</tr>
<tr>
<td>Emergency generator engine (EP3)</td>
<td>Opacity</td>
<td>Type of Fuel Usage</td>
</tr>
</tbody>
</table>

B. In addition to the requirements outlined in condition 5.A, recordkeeping for EU1 shall be in accordance with NDAC 33-15-12-02, Subpart A (60.7 Notification and Recordkeeping).

C. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings/computer printouts of continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(b)[2] & NDAC 33-15-12-02, Subpart A

7. Reporting:

A. Reporting for EU1 shall be in accordance with NDAC 33-15-12-02, Subpart A (§60.7 Notification and record keeping and §60.19 General notification and reporting requirements). The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 6 on forms supplied or approved by the Department. All instances of deviations from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year. All required reports must be certified by a responsible official.

B. The permittee shall submit an annual compliance certification report in accordance with NDAC 33-15-14-06.5.c(5) within 45 days after December 31 of each year on forms supplied or approved by the Department.

Applicable Requirement: NDAC 33-15-14-06.5.c(5)

C. For emission units where the method of compliance monitoring is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(e)

D. The permittee shall submit an annual emission inventory report on forms supplied or approved by the Department. This report shall be submitted by March 15 of each year. Insignificant units/activities listed in this permit do not need to be included in the report.

Applicable Requirements: NDAC 33-15-14-06.5.a(7) and NDAC 33-15-23-04

8. Facility Wide Operating Conditions:

A. Ambient Air Quality Standards:

1) Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33-15-02, external to buildings, to which the general public has access.

2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33-10.

3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.

4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirements: NDAC 33-15-02-04 and 40 CFR 50.1(e)

B. Fugitive Emissions: The release of fugitive emissions shall comply with the applicable requirements in NDAC 33-15-17.

Applicable Requirement: NDAC 33-15-17
C. **Open Burning:** The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in section 33-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33-15-04

D. **Asbestos Renovation or Demolition:** Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33-15-13.

Applicable Requirement: NDAC 33-15-13-02

E. **Requirements for Organic Compounds Gas Disposal:**

1) Any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining, or process operations and which contain hydrogen sulfide shall be incinerated, flared or treated in an equally effective manner before being released to the ambient air.

2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33-15-07-02

F. **Rotating Pumps and Compressors:** All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33-15-07-01.5

G. **Shutdowns/Malfunction/Continuous Emission Monitoring System Failure:**

1) Maintenance Shutdowns. In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least twenty-four hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:

   a) Identification of the specific facility to be taken out of service as well as its location and permit number.

   b) The expected length of time that the air pollution control equipment will be out of service.
c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.

d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.

e) The reasons that it would be impossible or impractical to shutdown the source operation during the maintenance period.

f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.


2) Malfunctions.

a) When a malfunction in any installation occurs that can be expected to last longer than twenty-four hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The Department shall be notified when the condition causing the malfunction has been corrected.

b) Immediate notification to the Department is required for any malfunction that would threaten health or welfare, or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the Department can be contacted through the twenty-four-hour state radio emergency number 1-800-472-2121. If calling from out of state, the twenty-four-hour number is 701-328-9921.

c) Unavoidable Malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:

[1] The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.

[2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.

[3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent
with good practice for minimizing emissions, including minimizing any bypass emissions.

[4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.

[5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.

[6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within thirty days of the end of the calendar quarter in which the malfunction occurred or within thirty days of a written request by the Department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by-case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33-15-01-13.2

3) Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made. The provisions of this subsection do not apply to sources that are subject to monitoring requirements in Chapter 33-15-21 (40 CFR 75, Acid Rain Program).


H. **Noncompliance Due to an Emergency**: The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

2) The permitted facility was at the time being properly operated;
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

4) The permittee submitted notice of the emergency to the Department within one working day of the time when emission limitations were exceeded longer than 24-hours due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Those emergencies not reported within one working day, as well as those that were, will be included in the semi-annual report.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a New Source Performance Standard) rather than those established to attain a health based air quality standard.

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

Applicable Requirement: NDAC 33-15-14-06.5.g

I. Air Pollution from Internal Combustion Engines: The permittee shall comply with all applicable requirements of NDAC 33-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33-15-08-01

J. Prohibition of Air Pollution:

1) The permittee shall not permit or cause air pollution, as defined in NDAC 33-15-01-04.

2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33-15-01-15
K. Performance Tests:

1) The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23-25. All tests shall be made and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Health Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.

2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33-15-01-12

3) Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63, unless otherwise specified by the subpart. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant, and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a), NDAC 33-15-12-02 Subpart A (40 CFR 60.8), NDAC 33-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33-15-22-03 Subpart A (40 CFR 63.7)

L. Pesticide Use and Disposal: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33-15-10.

Applicable Requirements: NDAC 33-15-10-01 and NDAC 33-15-10-02

M. Air Pollution Emergency Episodes: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33-15-11.

N. **Stratospheric Ozone Protection:** The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

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

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

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

4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

O. **Chemical Accident Prevention:** The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

1) Three years after the date on which a regulated substance is first listed under this part; or

2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

P. **Air Pollution Control Equipment:** The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer’s recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer’s recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33-15-14-06.5.b(1)

Q. **Prevention of Significant Deterioration of Air Quality** (40 CFR 52.21 as incorporated by NDAC Chapter 33-15-15): If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a “major modification” under 40 CFR 52.21(b)(2).
If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33-15-15-01.2

9. General Conditions:

A. Annual Fee Payment: The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within sixty days following the date of such notice. Any source that qualifies as a “small business” may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(7) and NDAC 33-15-23-04

B. Permit Renewal and Expiration: This permit shall be effective from the date of its issuance for a fixed period of 5 years. The permittee’s right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than eighteen months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within sixty days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33-15-14-06.4 and NDAC 33-15-14-06.6

C. Transfer of Ownership or Operation: This permit may not be transferred except by procedures allowed in Chapter 33-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33-15-14-06.6.d

D. Property Rights: This permit does not convey any property rights of any sort, or any exclusive privilege.
Applicable Requirement: NDAC 33-15-14-06.5.a(6)(d)

E. **Submissions:**

1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

   North Dakota Department of Health  
   Division of Air Quality  
   918 E Divide Avenue, 2nd Floor  
   Bismarck, ND 58501-1947

2) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33-15-14-06.4.d

F. **Right of Entry:** Any duly authorized officer, employee or agent of the North Dakota Department of Health may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department’s rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33-15-14-06.5.c(2) and NDAC 33-15-01-06

G. **Compliance:** The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23-25 and NDAC 33-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23-25. 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.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(a) and NDAC 33-15-14-06.5.a(6)(b)

H. **Duty to Provide Information:** The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This includes instances where an alteration, repair, expansion, or change in method of operation of the source occurs. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall
promptly submit such supplementary facts or corrected information. Items that warrant supplemental information submittal include, but are not limited to, changes in the ambient air boundary and changes in parameters associated with emission points (i.e., stack parameters). The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(e), NDAC 33-15-14-06.6.b(3) and NDAC 33-15-14-06.4.b

I. Reopening for Cause: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1) Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed no later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

2) The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

3) The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33-15-14-06.6.f

J. Permit Changes: The permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(c)

K. Off-Permit Changes: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:

1) No such change may violate any term or condition of this permit.

2) Each change must comply with all applicable requirements.
3) Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.

4) A Permit to Construct under NDAC 33-15-14-02 has been issued, if required.

5) Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.

6) The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee’s facility.

Applicable Requirement: NDAC 33-15-14-06.6.b(3)

L. **Administrative Permit Amendments**: This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:

1) Corrects typographical errors.

2) Identifies a change in the name, address or phone number of any person identified in this permit, or provides a similar minor administrative change at the source.

3) Requires more frequent monitoring or reporting by the permittee.

4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.

5) Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.

6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department’s approved Title V operating permit program.

Applicable Requirement: NDAC 33-15-14-06.6.d

M. **Minor Permit Modification**: This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:
1) Does not violate any applicable requirement.

2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.

3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.

4) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Federal Clean Air Act.


6) Is not required to be processed as a significant modification.

Applicable Requirement: NDAC 33-15-14-06.6.e(1)

N. Significant Modifications:

1) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.

Applicable Requirement: NDAC 33-15-14-06.6.e(3)

O. Operational Flexibility: The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements; or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.
The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33-15-14-06.6.b(2)

P. **Relationship to Other Requirements:** Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.

2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

3) The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.

4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33-15-14-06.3 and NDAC 33-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause:** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33-15-14-06.5.a(5)

R. **Circumvention:** The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

Applicable Requirement: NDAC 33-15-01-08

10. **State Enforceable Only Conditions (not Federally enforceable):**

A. **General Odor Restriction:** The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33-15-16.

Applicable Requirement: NDAC 33-15-16
B. **Hydrogen Sulfide Restriction:** The permittee shall not discharge into the ambient air hydrogen sulfide (H₂S) in concentrations that would be objectionable on land owned or leased by the complainant or in areas normally accessed by the general public. For the purpose of complaint resolution, two samples with concentrations greater than 0.05 parts per million (50 parts per billion) sampled at least 15 minutes apart within a two-hour period and measured in accordance with Section 33-15-16-04 constitute a violation. An ambient air analyzer designed for monitoring hydrogen sulfide (H₂S) is the method used for determining the concentrations of emissions at the point of measurement, or other instrumental methods as approved by the Department.

### Gas Releases

#### Hourly and Annual Emission Estimates

<table>
<thead>
<tr>
<th>Category</th>
<th>Station Operations</th>
<th>Gas Release Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
<td><strong>TOWN-GR COMPRESSION SEAL VENT</strong></td>
<td><strong>TOWN-GR UNIT BLOWDOWNS/PURGES</strong></td>
</tr>
<tr>
<td><strong>Avg. Hourly</strong></td>
<td><strong>Max. Annual</strong></td>
<td><strong>Max. Hourly</strong></td>
</tr>
<tr>
<td>Gas Release</td>
<td>421 scfh</td>
<td>1,661,531 scf/yr</td>
</tr>
<tr>
<td>NO</td>
<td>493 lb/hr</td>
<td>2,161 tpy</td>
</tr>
<tr>
<td><strong>PM</strong></td>
<td><strong>CO</strong></td>
<td><strong>SO2</strong></td>
</tr>
<tr>
<td>Eavg (lb/hr) = EAnnual (tpy) * 2,000 (lb/ton) / 8,760 (hr/yr)</td>
<td>EMAX (lb/hr) = Max Hourly Gas Release Volume (scf/hr) * [Max Gas Density (0.0555 lb/scf) * Safety Factor (1.0)] * Max Species wt% (UPL 100%)</td>
<td></td>
</tr>
<tr>
<td>1. Gas release estimates based on engineering evaluation of several other compressor stations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Data used in estimates is based upon model deemed to be most representative of natural gas at the site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. If necessary, customizations (SF) are applied to make the models more representative of natural gas at the site.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Net Gas Speciation Weight % Factors**

<table>
<thead>
<tr>
<th>Avg Hourly</th>
<th>Annual</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNCNG: UPL: 90%</td>
<td>TNCNG: UPL: 100%</td>
<td></td>
</tr>
<tr>
<td>Heating Value (BTU/scf)</td>
<td>1,183 BTU/scf</td>
<td>1,252 BTU/scf</td>
</tr>
<tr>
<td>Density (lb/scf) at USEPA Standard Conditions</td>
<td>0.0518 lb/scf</td>
<td>0.0555 lb/scf</td>
</tr>
<tr>
<td>CO2-e</td>
<td>493 lb/hr</td>
<td>2,161 tpy</td>
</tr>
</tbody>
</table>

**Selected Class for Grouping:**

- **WC**
- **TNCNG:** WC

**Selected Model:**

- **TOWN-GR UNIT BLOWDOWNS/PURGES**
- **TOWN-GR COMPRESSOR SEAL VENT**

**Selected Grouping of Available Samples:**

- **TNCNG**
  - Number of Samples in Grouping: 56
  - States Represented in Grouping: AR, LA, ME, MO, MS, NS, NY, OH, OK, PA, TN, TX and WV
  - Dates Represented in Grouping: 2011 thru 2016

**NOTES**

- **Eavg (lb/hr) = Gas Release Volume (scf/year) * [Gas Density (0.0518 lb/scf) * Safety Factor (1.0)] * Average Species wt% (UPL 90%) / (2,000 lb/year)**
- **Emax (lb/hr) = Eavg (lb/hr) * 2,000 (lb/ton) / 8,760 (hr/yr)**
- **Exmax (lb/hr) = Max Hourly Gas Release Volume (scf/hr) * [Max Gas Density (0.0555 lb/scf) * Safety Factor (1.0)] * Max Species wt% (UPL 100%)**

---

**Table G-1A**

**Gas Releases**

**Nat Gas Speciation Weight % Factors**

**Alliance Pipeline, LP**

**Towner 17-A Compressor Station**

**Prepared:** April 2022
### TABLE H-1Aa

**Piping Components**

**Hourly and Annual Emission Estimates**

<table>
<thead>
<tr>
<th>Source</th>
<th>Towner 17-A / PC-NG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>Gas</td>
</tr>
<tr>
<td>Minimum hours when component purged with inert gas</td>
<td>0 hrs/yr</td>
</tr>
<tr>
<td>Natural Gas</td>
<td></td>
</tr>
</tbody>
</table>

#### Component

<table>
<thead>
<tr>
<th>Component</th>
<th>Count</th>
<th>Emission Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valves</td>
<td>632 components</td>
<td>4.50E-03 kg/hr/component</td>
</tr>
<tr>
<td>Connectors</td>
<td>1,908 components</td>
<td>2.00E-04 kg/hr/component</td>
</tr>
<tr>
<td>Flanges</td>
<td>423 components</td>
<td>3.90E-04 kg/hr/component</td>
</tr>
<tr>
<td>Open-Ended Lines</td>
<td>15 components</td>
<td>2.00E-03 kg/hr/component</td>
</tr>
<tr>
<td>Pump Seals</td>
<td>0 components</td>
<td>2.40E-03 kg/hr/component</td>
</tr>
<tr>
<td>Other</td>
<td>59 components</td>
<td>8.80E-03 kg/hr/component</td>
</tr>
</tbody>
</table>

#### Emissions

<table>
<thead>
<tr>
<th>Speciation</th>
<th>Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO&lt;sub&gt;2&lt;/sub&gt;-e</strong></td>
<td>2263.15%</td>
</tr>
<tr>
<td><strong>CO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td>5.60%</td>
</tr>
<tr>
<td><strong>TOC (Total)</strong></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Methane</strong></td>
<td>90.302%</td>
</tr>
<tr>
<td><strong>Ethane</strong></td>
<td>21.459%</td>
</tr>
<tr>
<td><strong>VOC (Total)</strong></td>
<td>16.338%</td>
</tr>
<tr>
<td><strong>VOC (non-HAP)</strong></td>
<td>15.934%</td>
</tr>
<tr>
<td><strong>HAP (Total)</strong></td>
<td>0.404%</td>
</tr>
<tr>
<td><strong>Benzenes</strong></td>
<td>0.143%</td>
</tr>
<tr>
<td><strong>Ethylbenzenes</strong></td>
<td>0.026%</td>
</tr>
<tr>
<td><strong>Hexane (n-)</strong></td>
<td>0.223%</td>
</tr>
<tr>
<td><strong>Methanol</strong></td>
<td>0.109%</td>
</tr>
<tr>
<td><strong>Naphthalene</strong></td>
<td>0.017%</td>
</tr>
<tr>
<td><strong>Toluene</strong></td>
<td>0.071%</td>
</tr>
</tbody>
</table>

#### Eavg (lb/hr)

\[ E_{avg} (lb/hr) = \sum (\text{Count} \times \text{EF (kg/hr-count)}) \times \frac{\text{Avg Species wt%} 	imes 1,000 (g/kg)}{453.6 (g/lb)} \]

#### EAnnual (tpy)

\[ E_{Annual} (tpy) = \frac{E_{avg} (lb/hr) \times 8760 (hr/yr)}{2,000 (lb/ton)} \]

#### EMAX (lb/hr)

\[ E_{MAX} (lb/hr) = E_{avg} (lb/hr) \times \text{Adj Max Variability %} \]

1. Emission factors obtained from Table 2-4 (Oil & Gas Production Operations) of Protocol for Equipment Leak Emission Estimates (EPA 453/R-95-017). The average SOCMI w/o ethylene emission factor is used for pumps in heavy oil service (Table 2-1) since an emission factor isn't provided in Table 2-4.

2. Piping component counts based on design drawings for a similar compressor station.

3. The component type "Other" includes blowdown valves, relief valves, and compressor seals.

4. Weight percents based on gas analysis used to estimate gas release annual emissions (TABLE G-1A).

Maximum hourly emissions are based on the worst-case short-term weight percents even though the values are NOT presented.

---

Alliance Pipeline, LP
Towner 17-A Compressor Station

PTE Estimates: Title V Renewal
Prepared: April 2022
<table>
<thead>
<tr>
<th>Component</th>
<th>Count</th>
<th>Emission Factor</th>
<th>Count</th>
<th>Emission Factor</th>
<th>Count</th>
<th>Emission Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valves</td>
<td>90 components</td>
<td>2.50E-03 kg/hr/component</td>
<td>669 components</td>
<td>2.10E-04 kg/hr/component</td>
<td>138 components</td>
<td>1.10E-04 kg/hr/component</td>
</tr>
<tr>
<td>Connectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flanges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open-Ended Lines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Seals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Speciation**

- **CO₂**) 0.69% 120% 0.0066 lb/hr 0.0287 tpy 0.0079 lb/hr
- **CO₂** 0.01% 120% 0.0001 lb/hr 0.0004 tpy 0.0001 lb/hr
- **TOC (Total)** 99.99% 120% 0.9472 lb/hr 4.1486 tpy 1.1366 lb/hr
- **Methane** 0.03% 120% 0.0003 lb/hr 0.0011 tpy 0.0003 lb/hr
- **Ethane** 0.17% 120% 0.0016 lb/hr 0.0069 tpy 0.0019 lb/hr
- **VOC (Total)** 99.80% 120% 0.9453 lb/hr 4.1406 tpy 1.1344 lb/hr
- **VOC (non-HAP)** 84.33% 120% 0.7988 lb/hr 3.4988 tpy 0.9586 lb/hr
- **HAP (Total)** 15.47% 120% 0.1465 lb/hr 0.6418 tpy 0.1758 lb/hr
- **Benzene** 1.11% 120% 1.05E-02 lb/hr 4.59E-02 tpy 1.26E-02 lb/hr
- **Ethylbenzene** 0.16% 120% 1.53E-03 lb/hr 6.70E-03 tpy 1.84E-03 lb/hr
- **Hexane (n-)** 6.44% 120% 6.10E-02 lb/hr 2.67E-01 tpy 7.32E-02 lb/hr
- **Methanol**
- **Naphthalene**
- **Toluene** 5.09% 120% 4.82E-02 lb/hr 2.11E-01 tpy 5.79E-02 lb/hr
- **Trimethylpentane (2,2,4-)** 0.11% 120% 1.09E-03 lb/hr 4.76E-03 tpy 1.30E-03 lb/hr
- **Xylenes** 2.56% 120% 2.43E-02 lb/hr 1.06E-01 tpy 2.91E-02 lb/hr

**Notes**

1. Emission factors obtained from Table 2-4 (Oil & Gas Production Operations) of Protocol for Equipment Leak Emission Estimates (EPA 453/R-95-017). The average SO.CMI w/o ethylene emission factor is used for pumps in heavy oil service (Table 2-1) since an emission factor isn't provided in Table 2-4.
2. Piping component counts based on design drawings for a similar compressor station.
3. The component type "Other" includes blowdown valves, relief valves, and compressor seals.
4. Weight percent based on composition estimate (TABLE F-0).
5. Maximum hourly emissions are based on 120% of the hourly emissions estimated in an effort to be conservative.
### TABLE H-1Ac
**Piping Components**

**Hourly and Annual Emission Estimates**

<table>
<thead>
<tr>
<th>Source</th>
<th>Towner 17-A / PC-LO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>Heavy Oil Oil</td>
</tr>
</tbody>
</table>

#### Minimum hours when component purged with inert gas

- 0 hrs/yr

#### Component Counts and Emission Factors

<table>
<thead>
<tr>
<th>Component</th>
<th>Count</th>
<th>Emission Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valves</td>
<td>144 components</td>
<td>8.40E-06 kg/hr/component</td>
</tr>
<tr>
<td>Connectors</td>
<td>410 components</td>
<td>7.50E-06 kg/hr/component</td>
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<tr>
<td>Flanges</td>
<td>117 components</td>
<td>3.90E-07 kg/hr/component</td>
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<tr>
<td>Open-Ended Lines</td>
<td>0 components</td>
<td>1.40E-04 kg/hr/component</td>
</tr>
<tr>
<td>Pump Seals</td>
<td>7 components</td>
<td>8.62E-03 kg/hr/component</td>
</tr>
<tr>
<td>Other</td>
<td>3 components</td>
<td>3.20E-05 kg/hr/component</td>
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#### Weight Percent and Emissions

<table>
<thead>
<tr>
<th>Speciation</th>
<th>Average Weight %</th>
<th>Adjustment for Maximum Hourly Variability</th>
<th>Avg. Hourly</th>
<th>Max. Annual</th>
<th>Max. Hourly</th>
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<tbody>
<tr>
<td>CO2</td>
<td>100.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2-e</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOC (Total)</td>
<td>100.00%</td>
<td></td>
<td>0.1428 lb/hr</td>
<td>0.6253 tpy</td>
<td>0.1713 lb/hr</td>
</tr>
<tr>
<td>Methane</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ethane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC (Total)</td>
<td>100.00%</td>
<td></td>
<td>0.1428 lb/hr</td>
<td>0.6253 tpy</td>
<td>0.1713 lb/hr</td>
</tr>
<tr>
<td>VOC (non-HAP)</td>
<td>100.00%</td>
<td></td>
<td>0.1428 lb/hr</td>
<td>0.6253 tpy</td>
<td>0.1713 lb/hr</td>
</tr>
<tr>
<td>HAP (Total)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td></td>
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<tr>
<td>Ethylbenzene</td>
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<tr>
<td>Hexane (n-)</td>
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<tr>
<td>Methanol</td>
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<tr>
<td>Naphthalene</td>
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<tr>
<td>Toluene</td>
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<td></td>
</tr>
<tr>
<td>Trimethylpentane (2,2,4-)</td>
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<tr>
<td>Xylenes</td>
<td></td>
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</tr>
</tbody>
</table>

#### Emission Estimation Formulas

\[
E_{avg} (lb/hr) = \sum [\text{Count} \times \text{EF (kg/hr-count)}] \times \text{Avg species wt%} \times 1,000 \text{ (g/kg)}/453.6 \text{ (g/lb)}
\]

\[
E_{Annual} (tpy) = E_{avg} \times 8760 \text{ (hr/yr)}/2,000 \text{ (lb/ton)}
\]

\[
E_{MAX} (lb/hr) = E_{avg} \times \text{Adj Max Variability %}
\]

1. Emission factors obtained from Table 2-4 (Oil & Gas Production Operations) of Protocol for Equipment Leak Emission Estimates (EPA 453/R-95-017). The emission factor for pumps in heavy oil service is obtained from Table 2-1.
2. Piping component counts based on design drawings for a similar compressor station.
3. The component type "Other" includes blowdown valves, relief valves, and compressor seals.
4. Weight percent based listed on MSDS.
5. Maximum hourly emissions are based on 120% of the hourly emissions estimated in an effort to be conservative.

---

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

<table>
<thead>
<tr>
<th>Permittee:</th>
<th>Permit Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Alliance Pipeline, L.P.</td>
<td>T5-O02002</td>
</tr>
<tr>
<td>Address: 6385 Old Shady Oak Road, Ste 150 Eden Prairie, MN 55344</td>
<td>Source Name: Towner Compressor Station</td>
</tr>
<tr>
<td>Source Location: NW¼, Sec. 15, T155N, R76W 5792 Seventh Avenue NE Towner, ND 58788 McHenry County</td>
<td>Source Type: Compressor Station</td>
</tr>
<tr>
<td>Expiration Date: October 15, 2022</td>
<td></td>
</tr>
</tbody>
</table>

Pursuant to Chapter 23-25 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota, Article 33-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e. owner) designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions units at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Health and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal No. 3: 10/31/17
Revision No. 0: ________________

Terry L. O’Clair, P.E.
Director
Division of Air Quality
## Table of Contents

<table>
<thead>
<tr>
<th>Condition</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emission Unit Identification</td>
<td>3</td>
</tr>
<tr>
<td>2. Restrictions and Miscellaneous Conditions</td>
<td>3</td>
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<td>3. Applicable Standards</td>
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<td>5. Monitoring Requirements and Conditions</td>
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<td>9. General Conditions</td>
<td>15</td>
</tr>
<tr>
<td>10. State Enforceable Only Conditions (not Federally enforceable)</td>
<td>20</td>
</tr>
</tbody>
</table>
1. **Emission Unit Identification:**

The emission units regulated by this permit are as follows:

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>Emission Unit (EU)</th>
<th>Emission Point (EP)</th>
<th>Air Pollution Control Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electric Model LM2500 DLE combustion gas turbine with a nominal rating of at 31,400 bhp (206 MMBtu/hr LHV heat input) for the turbine/compressor unit (built 1999)</td>
<td>1</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Two natural gas-fired boilers with a nominal rating of 2,455,000 Btu/hr each</td>
<td>2&lt;sup&gt;A&lt;/sup&gt;</td>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>Natural gas-fired 4 SRB emergency generator engine with a nominal rating of 531 bhp (built 1999)</td>
<td>3&lt;sup&gt;B&lt;/sup&gt;</td>
<td>3</td>
<td>None</td>
</tr>
</tbody>
</table>

Add gas releases to the Emission Unit Identification Table

<sup>A</sup> Insignificant or fugitive emission sources with no specific emission limit.

<sup>B</sup> The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the applicable subpart (40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the RICE rules, 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, Subpart ZZZZ, §63.6640(f)].

2. **Restrictions and Miscellaneous Conditions:**

A. **Like-Kind Engine/Turbine Replacement:** This permit allows the permittee to replace the existing engine/turbine (to include turbine components) with a like-kind engine/turbine. Replacement is subject to the following conditions.

1) The Department must be notified within 10 days after change-out of the engine/turbine.

2) The replacement engine/turbine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine/turbine it is replacing.

3) The date of manufacture of the replacement engine/turbine must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.

4) The replacement engine/turbine is subject to the same state emission limits as the existing engine/turbine in addition to any NSPS or MACT emission limit that is applicable. Testing shall be conducted to confirm compliance with the emission limits within 180 days after start-up of the new engine/turbine.
5) If EU1 is modified or reconstructed, as defined in 40 CFR 60.2 and 60.15, the permittee shall comply with all applicable requirements of 40 CFR 60, Subpart KKKK.

Applicable Requirements: NDAC 33-15-14-06.5.b(1) & NDAC 33-15-12-02, Subpart KKKK

B. Fuel Restriction: EU1, EU2 and EU3 shall be operated using only pipeline quality natural gas containing no more than 2.0 grains of sulfur per 100 standard cubic feet.

Applicable Requirement: Permit to Construct (PTC) 99006

3. Applicable Standards:

A. New Source Performance Standards: The permittee shall comply with all applicable requirements of the following NDAC 33-15-12-02 and 40 CFR 60 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart GG - Standards of Performance for Stationary Gas Turbines (EU1).

   Applicable Requirement: NDAC 33-15-12-02, Subparts A & GG

B. Maximum Achievable Control Technology: The permittee shall comply with all applicable requirements of the following NDAC 33-15-22-03 and 40 CFR 63 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU3). The North Dakota Department of Health has not adopted the area source provisions of this subpart. Please send all documentation to EPA at the following address:

   U.S. EPA Region 8
   1595 Wynkoop Street
   Mail Code 8ENF – AT
   Denver, CO 80202-1129

   Applicable Requirement: 40 CFR 63, Subparts A & ZZZZ
4. **Emission Unit Limits:**

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>EU</th>
<th>EP</th>
<th>Pollutant/Parameter</th>
<th>Emission Limit</th>
<th>NDAC Applicable Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine</td>
<td>1</td>
<td>1</td>
<td>NO\textsubscript{x}</td>
<td>38.0 lb/hr (1-hr avg.) &amp; 242 ppmvd</td>
<td>Permit to Construct (PTC) 15074 &amp; 33-15-12, Subpart GG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SO\textsubscript{2}</td>
<td>A 4.0 lb/hr (1-hr avg.) &amp; either 150 ppmvd or may not burn any fuel which contains sulfur in excess of 0.8% by weight</td>
<td>PTC99006 and 33-15-12, Subpart GG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CO</td>
<td>20.0 lb/hr (1-hr avg.)</td>
<td>PTC99006</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opacity</td>
<td>20% \textsuperscript{B}</td>
<td>33-15-03-02.2</td>
</tr>
<tr>
<td>Two natural gas-fired boilers</td>
<td>2</td>
<td>2</td>
<td>Opacity</td>
<td>20% \textsuperscript{B}</td>
<td>33-15-03-02</td>
</tr>
<tr>
<td>Emergency generator engine</td>
<td>3</td>
<td>3</td>
<td>Opacity</td>
<td>20% \textsuperscript{B}</td>
<td>33-15-03-02</td>
</tr>
</tbody>
</table>

\textsuperscript{A} PPMVD is from 40 CFR 60, Subpart GG; the more stringent limit applies. Limits apply at 15% oxygen and ISO standard day conditions. ISO standard day conditions means 288 degrees Kelvin, 60% relative humidity and 101.3 kilopascals pressure.

\textsuperscript{B} 40% opacity is permissible for not more than one six-minute period per hour.

5. **Monitoring Requirements and Conditions:**

A. **Requirements:**

<table>
<thead>
<tr>
<th>Emission Unit Description</th>
<th>Pollutant/Parameter</th>
<th>Monitoring Requirement (Method)</th>
<th>Condition Number</th>
<th>NDAC Applicable Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine (EP1)</td>
<td>NO\textsubscript{x}</td>
<td>Emissions Test</td>
<td>4.B.1</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td></td>
<td>SO\textsubscript{2}</td>
<td>Fuel Monitoring</td>
<td>4.B.3</td>
<td>33-15-12-02, Subpart GG</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>Emissions Test</td>
<td>4.B.1</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td>Recordkeeping</td>
<td>4.B.2</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
<tr>
<td>Emergency generator engine</td>
<td>Opacity</td>
<td>Recordkeeping</td>
<td>4.B.2</td>
<td>33-15-14-06.5.a(3)(a)</td>
</tr>
</tbody>
</table>
B. Monitoring Conditions:

1) The permittee shall conduct an emissions test to measure NOx and CO emissions according to the following schedule:
   
a) Conduct annual testing, not to exceed 13 months between tests; or
   
b) Conduct testing when changes are made to the turbine that may increase emission rates, whichever is more frequent.

Tests shall be conducted using EPA Reference Methods in 40 CFR 60, Appendix A, or at a minimum a portable analyzer method approved by the Department. A test shall consist of three runs, with each run at least 20 minutes in length.

2) For purposes of compliance monitoring, burning of fuel as outlined in Condition 2 shall be considered credible evidence of compliance with the opacity limit. However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over burning of fuel as outlined in Condition 2 for evidence of compliance or noncompliance with the opacity limit in the event of enforcement action.

3) The permittee shall monitor the sulfur content of the fuel being fired in the turbine (EU1) as follows provided the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60, Section 60.331(u):
   
a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
   
b) Representative fuel sampling data which shows that the sulfur content of the gaseous fuel does not exceed 20.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR 75 is required.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a) & NDAC 33-15-12-02, Subpart GG

6. Recordkeeping Requirements:

A. The permittee shall maintain compliance monitoring records as outlined in the Monitoring Records Table that include the following information.

1) The date, place (as defined in the permit) and time of sampling or measurement.

2) The date(s) testing was performed.

3) The company, entity, or person that performed the testing.
4) The testing techniques or methods used.

5) The results of such testing.

6) The operating conditions (i.e., ambient conditions, horsepower calculations, suction/discharge pressures, testing rate compared to rated capacity, timing, air to fuel ratio and rpm) that existed at the time of sampling or measurement.

7) Records shall be kept as to the quantity of natural gas used.

Applicable Requirement: NDAC 33-15-14-06.5.a(3)(b)[1]

Monitoring Records Table

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Pollutant/Parameter</th>
<th>Compliance Monitoring Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE combustion gas turbine (EP1)</td>
<td>NOx</td>
<td>Emissions Test Data</td>
</tr>
<tr>
<td></td>
<td>SO2</td>
<td>Contract/Tariff Sheet or Fuel Analysis Data</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>Emissions Test Data</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td>Type of Fuel Usage</td>
</tr>
<tr>
<td>Emergency generator engine (EP3)</td>
<td>Opacity</td>
<td>Type of Fuel Usage</td>
</tr>
</tbody>
</table>

B. In addition to the requirements outlined in condition 5.A, recordkeeping for EU1 shall be in accordance with NDAC 33-15-12-02, Subpart A (60.7 Notification and Recordkeeping).

C. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings/computer printouts of continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(b)[2] & NDAC 33-15-12-02, Subpart A

7. Reporting:

A. Reporting for EU1 shall be in accordance with NDAC 33-15-12-02, Subpart A (§60.7 Notification and record keeping and §60.19 General notification and reporting requirements). The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 6 on forms supplied or approved by the Department. All instances of deviations from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year. All required reports must be certified by a responsible official.

B. The permittee shall submit an annual compliance certification report in accordance with NDAC 33-15-14-06.5.c (5) within 45 days after December 31 of each year on forms supplied or approved by the Department.

Applicable Requirement: NDAC 33-15-14-06.5.c(5)

C. For emission units where the method of compliance monitoring is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(e)

D. The permittee shall submit an annual emission inventory report on forms supplied or approved by the Department. This report shall be submitted by March 15 of each year. Insignificant units/activities listed in this permit do not need to be included in the report.

Applicable Requirements: NDAC 33-15-14-06.5.a(7) and NDAC 33-15-23-04

8. **Facility Wide Operating Conditions:**

A. **Ambient Air Quality Standards:**

   1) Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33-15-02, external to buildings, to which the general public has access.

   2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33-10.

   3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.

   4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirements: NDAC 33-15-02-04 and 40 CFR 50.1(e)

B. **Fugitive Emissions:** The release of fugitive emissions shall comply with the applicable requirements in NDAC 33-15-17.

Applicable Requirement: NDAC 33-15-17
C. **Open Burning:** The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in section 33-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33-15-04

D. **Asbestos Renovation or Demolition:** Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33-15-13.

Applicable Requirement: NDAC 33-15-13-02

E. **Requirements for Organic Compounds Gas Disposal:**

1) Any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining, or process operations and which contain hydrogen sulfide shall be incinerated, flared or treated in an equally effective manner before being released to the ambient air.

2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33-15-07-02

F. **Rotating Pumps and Compressors:** All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33-15-07-01.5

G. **Shutdowns/Malfunction/Continuous Emission Monitoring System Failure:**

1) Maintenance Shutdowns. In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least twenty-four hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:

   a) Identification of the specific facility to be taken out of service as well as its location and permit number.

   b) The expected length of time that the air pollution control equipment will be out of service.
c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.

d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.

e) The reasons that it would be impossible or impractical to shutdown the source operation during the maintenance period.

f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.


2) Malfunctions.

a) When a malfunction in any installation occurs that can be expected to last longer than twenty-four hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The Department shall be notified when the condition causing the malfunction has been corrected.

b) Immediate notification to the Department is required for any malfunction that would threaten health or welfare, or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the Department can be contacted through the twenty-four-hour state radio emergency number 1-800-472-2121. If calling from out of state, the twenty-four-hour number is 701-328-9921.

c) Unavoidable Malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:

[1] The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.

[2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.

[3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent
with good practice for minimizing emissions, including minimizing any bypass emissions.

[4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.

[5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.

[6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within thirty days of the end of the calendar quarter in which the malfunction occurred or within thirty days of a written request by the Department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by-case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33-15-01-13.2

3) Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made. The provisions of this subsection do not apply to sources that are subject to monitoring requirements in Chapter 33-15-21 (40 CFR 75, Acid Rain Program).


H. Noncompliance Due to an Emergency: The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

2) The permitted facility was at the time being properly operated;
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

4) The permittee submitted notice of the emergency to the Department within one working day of the time when emission limitations were exceeded longer than 24-hours due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Those emergencies not reported within one working day, as well as those that were, will be included in the semi-annual report.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a New Source Performance Standard) rather than those established to attain a health based air quality standard.

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

Applicable Requirement: NDAC 33-15-14-06.5.g

I. Air Pollution from Internal Combustion Engines: The permittee shall comply with all applicable requirements of NDAC 33-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33-15-08-01

J. Prohibition of Air Pollution:

1) The permittee shall not permit or cause air pollution, as defined in NDAC 33-15-01-04.

2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33-15-01-15
K. Performance Tests:

1) The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23-25. All tests shall be made and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Health Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.

2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33-15-01-12

3) Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63, unless otherwise specified by the subpart. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant, and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a), NDAC 33-15-12-02 Subpart A (40 CFR 60.8), NDAC 33-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33-15-22-03 Subpart A (40 CFR 63.7)

L. Pesticide Use and Disposal: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33-15-10.

Applicable Requirements: NDAC 33-15-10-01 and NDAC 33-15-10-02

M. Air Pollution Emergency Episodes: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33-15-11.

N. **Stratospheric Ozone Protection:** The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

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

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

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

4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

O. **Chemical Accident Prevention:** The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

1) Three years after the date on which a regulated substance is first listed under this part; or

2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

P. **Air Pollution Control Equipment:** The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer’s recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer’s recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33-15-14-06.5.b(1)

Q. **Prevention of Significant Deterioration of Air Quality** (40 CFR 52.21 as incorporated by NDAC Chapter 33-15-15): If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a “major modification” under 40 CFR 52.21(b)(2).
If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33-15-15-01.2

9. **General Conditions:**

A. **Annual Fee Payment:** The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within sixty days following the date of such notice. Any source that qualifies as a “small business” may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(7) and NDAC 33-15-23-04

B. **Permit Renewal and Expiration:** This permit shall be effective from the date of its issuance for a fixed period of 5 years. The permittee’s right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than eighteen months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within sixty days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33-15-14-06.4 and NDAC 33-15-14-06.6

C. **Transfer of Ownership or Operation:** This permit may not be transferred except by procedures allowed in Chapter 33-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33-15-14-06.6.d

D. **Property Rights:** This permit does not convey any property rights of any sort, or any exclusive privilege.
Applicable Requirement: NDAC 33-15-14-06.5.a(6)(d)

E. **Submissions:**

1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

   North Dakota Department of Health  
   Division of Air Quality  
   918 E Divide Avenue, 2nd Floor  
   Bismarck, ND 58501-1947

2) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33-15-14-06.4.d

F. **Right of Entry:** Any duly authorized officer, employee or agent of the North Dakota Department of Health may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department’s rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33-15-14-06.5.c(2) and NDAC 33-15-01-06

G. **Compliance:** The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23-25 and NDAC 33-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23-25. 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.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(a) and NDAC 33-15-14-06.5.a(6)(b)

H. **Duty to Provide Information:** The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This includes instances where an alteration, repair, expansion, or change in method of operation of the source occurs. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall
promptly submit such supplementary facts or corrected information. Items that warrant supplemental information submittal include, but are not limited to, changes in the ambient air boundary and changes in parameters associated with emission points (i.e., stack parameters). The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(e), NDAC 33-15-14-06.6.b(3) and NDAC 33-15-14-06.4.b

I. Reopening for Cause: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1) Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed no later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

2) The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

3) The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33-15-14-06.6.f

J. Permit Changes: The permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(c)

K. Off-Permit Changes: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:

1) No such change may violate any term or condition of this permit.

2) Each change must comply with all applicable requirements.
3) Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.

4) A Permit to Construct under NDAC 33-15-14-02 has been issued, if required.

5) Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.

6) The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee’s facility.

Applicable Requirement: NDAC 33-15-14-06.6.b(3)

L. **Administrative Permit Amendments:** This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:

1) Corrects typographical errors.

2) Identifies a change in the name, address or phone number of any person identified in this permit, or provides a similar minor administrative change at the source.

3) Requires more frequent monitoring or reporting by the permittee.

4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.

5) Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.

6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department’s approved Title V operating permit program.

Applicable Requirement: NDAC 33-15-14-06.6.d

M. **Minor Permit Modification:** This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:
1) Does not violate any applicable requirement.

2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.

3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.

4) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Federal Clean Air Act.


6) Is not required to be processed as a significant modification.

Applicable Requirement: NDAC 33-15-14-06.6.e(1)

N. Significant Modifications:

1) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.

2) Significant permit modifications shall meet all Title V requirements, including those for applications, public participation, review by affected states, and review by the United States Environmental Protection Agency, as they apply to permit issuance and permit renewal. The Department shall complete review of significant permit modifications within nine months after receipt of a complete application.

Applicable Requirement: NDAC 33-15-14-06.6.e(3)

O. Operational Flexibility: The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements; or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.
The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33-15-14-06.6.b(2)

P. **Relationship to Other Requirements:** Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.

2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

3) The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.

4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33-15-14-06.3 and NDAC 33-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause:** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33-15-14-06.5.a(5)

R. **Circumvention:** The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

Applicable Requirement: NDAC 33-15-01-08

10. **State Enforceable Only Conditions (not Federally enforceable):**

A. **General Odor Restriction:** The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33-15-16.

Applicable Requirement: NDAC 33-15-16
B. **Hydrogen Sulfide Restriction:** The permittee shall not discharge into the ambient air hydrogen sulfide (H₂S) in concentrations that would be objectionable on land owned or leased by the complainant or in areas normally accessed by the general public. For the purpose of complaint resolution, two samples with concentrations greater than 0.05 parts per million (50 parts per billion) sampled at least 15 minutes apart within a two-hour period and measured in accordance with Section 33-15-16-04 constitute a violation. An ambient air analyzer designed for monitoring hydrogen sulfide (H₂S) is the method used for determining the concentrations of emissions at the point of measurement, or other instrumental methods as approved by the Department.