

AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

Permittee: Name: Fargo Public Schools Address: 700 Seventh Street South Fargo, ND 58103	Permit Number: ACP-18276 v 1.0 Permit Description: Synthetic Minor
Source Name & Location: Heating Plants 700 Seventh Street South Fargo, ND 58103 Cass County, North Dakota	Source Type: Elementary and Secondary Schools Heating Plant and Generator Sets
Date of Application: March 6, 2025	

Pursuant to Chapter 23.1-06 of the North Dakota Century Code (NDCC), and the Air Pollution Control Rules of the State of North Dakota (Article 33.1-15 of the North Dakota Administrative Code or NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Permit to Construct is hereby issued authorizing such permittee to construct and initially operate the source unit(s) at the location designated above. This Permit to Construct is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department) and to any conditions specified below:

 James L. Semerad
 Director
 Division of Air Quality

Date: _____

1. Project and Facility Emissions Units:

This Permit to Construct does not allow for the construction of any new emissions units at the facility and does not allow for the modification or reconstruction of any existing emissions units. Table 1-1 shows the complete list of units at Fargo Public Schools. Emission Units 20 through 23 are new to Fargo PS. Emission Units 5 through 7, 10, 13 through 22 have had their emission unit description updated to represent how these units operate.

Table 1-1: Facility Emission Units

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Two Iron Fireman Model 35-58-100A natural gas-fired boilers (distillate oil backup), rated at 6.695×10^6 Btu/hr each (installed prior to 1994) – Agassiz School	1 & 2	1 & 2	None
Two Kewanee Model KX87 natural gas-fired boilers (distillate oil backup) rated at 13.0×10^6 Btu/hr each (installed prior to 1989) - Ben Franklin Junior High School	3 & 4	3 & 4	None
Caterpillar Model 3508, 1200 bhp diesel engine-driven curtailment response generator rated at 900 kW (manuf. 2001) (MACT ZZZZ) – Ben Franklin Junior High School	5 ^A	5	Catalyst system
Caterpillar Model 3512, 1598 bhp diesel engine-driven curtailment response generator rated at 1100 kW (manuf. 2005) (MACT ZZZZ) – Carl Ben Eielson Middle School	6 ^A	6	Catalyst system
Cummins Model QST 30, 1490 bhp diesel engine-driven curtailment response generator rated at 1000 kW (manuf. 1992) (MACT ZZZZ) - Discovery Junior High School	7 ^A	7	Catalyst system
Two Burnham Model 5W-250-50-G0 natural gas-fired boilers (distillate oil backup) rated at 8.4×10^6 Btu/hr each (installed prior to 2004) - North High School	8 & 9	8 & 9	None
Caterpillar Model 3508, 1480 bhp diesel engine-driven curtailment response generator rated at 1000 kW (manuf. 2002) (MACT ZZZZ) - North High School	10 ^A	10	Catalyst system

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Two Burnham Model 3L400-50-GO-GP natural gas-fired boilers (distillate oil backup) rated at 16.7 x 10 ⁶ Btu/hr each. (installed 1998) (NSPS Dc) - South Senior High School	11 & 12	11 & 12	None
Caterpillar Model 3508B, 1375 bhp diesel engine-driven curtailment response generator rated at 910 kW (manuf. 1999) (MACT ZZZZ) - South High School	13 ^A	13	Catalyst system
Caterpillar Model 3412, 890 bhp diesel engine-driven curtailment response generator rated at 600 kW (manuf. 1999) (MACT ZZZZ) - Bennett Elementary School	14 ^A	14	Catalyst system
Caterpillar Model 3406, 449 bhp diesel engine-driven curtailment response generator rated at 300 kW (manuf. 1994) (MACT ZZZZ) - Centennial Elementary School	15 ^A	15	Catalyst system
Kohler Model R0ZD250, 415 bhp diesel engine-driven emergency generator rated at 315 kW (manuf. 2005) - District Office	16 ^B	16	Catalyst system
Caterpillar Model 3406C, 578 bhp diesel engine-driven curtailment response generator rated at 400 kW (manuf. 2006) (MACT ZZZZ) - Jefferson Elementary School	17 ^A	17	Catalyst system
Caterpillar Model 3456, 764 bhp diesel engine-driven curtailment response generator rated at 500 kW (manuf. 2005) (MACT ZZZZ) - Kennedy Elementary School	18 ^A	18	Catalyst system
Caterpillar Model 3516, 3285 bhp diesel engine-driven curtailment response generator rated at 2250 kW (Tier 1 certified, manuf. 2009) (NSPS III; MACT ZZZZ) - Davies High School	19 ^A	19	None
Caterpillar Model LC6, 536 bhp diesel engine-driven curtailment response generator rated at 400 kW (Tier 3 certified, manuf. 2008) (NSPS III; MACT ZZZZ) - Operations Center	20 ^A	20	None

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Caterpillar Model 400, 536 bhp diesel engine-driven emergency generator rated at 400 kW (manuf. 2014) (NSPS IIII) - Ed Clapp School	21 ^B	21	None
Caterpillar Model 400, 536 bhp diesel engine-driven emergency generator rated at 400 kW (manuf. 2015) (; NSPS IIII) - Eagles School	22 ^B	22	None

^A The curtailment response generator engines run by contractual necessity when energy utility providers call for community power grid reductions, which provides Fargo Public Schools with utility electrical cost reductions.

^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 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(s). There is no time limit on the use of emergency stationary RICE in emergency situations.

2. Applicable Standards, Restrictions and Miscellaneous Conditions:

A. Nonemergency Generator Restrictions, Monitoring and Recordkeeping: Each nonemergency generator set (EUs 5 through 7, 10, 13 through 15, & 17 through 20) is restricted to 500 hours of operation per 12-month period (monthly rolling average) without Department approval.

- 1) The permittee shall record the number of hours of operation for EUs 5 through 7, 10, 13 through 15, and 17 through 20 each month and determine the total number of hours each generator set was operated during the previous 12-month period.
- 2) Any time the number of hours operated during the previous 12-month period exceeds 500 hours per unit, the permittee shall notify the Department within 10 working days.
- 3) The records of operation of the generator shall be kept for five years and submitted to the Department upon request.

3. Emission Unit Limits:

Emission limits from the operation of the source unit(s) identified in Table 3-1 of this Permit to Construct (hereafter referred to as "permit") are as follows. Source units not listed are subject to the applicable emission limits specified in the North Dakota Air Pollution Control Rules.

Table 3-1: Permit Emissions Limits

Emission Unit Description	EU/EP	Pollutant/Parameter	Emission Limit
Boilers, all locations	1 through 4, 8, 9, 11, & 12	Opacity	20% ^A
Ben Franklin generator	5	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Carl Ben Eielson generator	6	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Discovery generator	7	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
North High generator	10	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
South High generator	13	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Bennett generator	14	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Centennial generator	15	CO	49 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
District Office generator	16	Opacity	20% ^A
Jefferson generator	17	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Kennedy generator	18	CO	23 ppm @ 15% O ₂ ^B
		Opacity	20% ^A
Davies generator	19	NO _x	6.9 g/hp-hr ^C
		CO	8.5 g/hp-hr ^C
		VOC	1.0 g/hp-hr ^C
		Opacity	20% ^A
Operations Center generator	20	NO _x	6.9 g/hp-hr ^C
		CO	8.5 g/hp-hr ^C
		VOC	1.0 g/hp-hr ^C
		Opacity	20% ^A

Emission Unit Description	EU/EP	Pollutant/Parameter	Emission Limit
Ed Clapp generator	21	Opacity	20% ^A
Eagles generator	22	Opacity	20% ^A

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

^B The emission limits in ppm are from 40 CFR 63, Subpart ZZZZ.

^C The emission limits in g/hp-hr are from 40 CFR 60, Subpart IIII, Table 1.

4. **Emission Testing Requirements:**

A. Sampling and Testing:

The Department may require the permittee to conduct tests to determine the emission rate of air contaminants from the source. The Department may observe the testing and may specify testing methods to be used. A signed copy of the test results shall be furnished to the Department within 60 days of the test date. The basis for this condition is NDAC 33.1-15-01-12 which is hereby incorporated into this permit by reference. To facilitate preparing for and conducting such tests, and to facilitate reporting the test results to the Department, the permittee shall follow the procedures and formats in the Department's Emission Testing Guideline.

5. **General Conditions (Equipment):**

A. Best Management Practices:

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

B. Operation of Air Pollution Control Equipment:

The permittee shall maintain and operate all air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

C. Organic Compound Emissions:

The permittee shall comply with all applicable requirements of NDAC 33.1-15-07 – Control of Organic Compounds Emissions.

D. Air Pollution from Internal Combustion Engines:

The permittee shall comply with all applicable requirements of NDAC 33.1-15-08-01 – Internal Combustion Engine Emissions Restricted.

E. Fugitive Emissions:

The release of fugitive emissions shall comply with the applicable requirements in NDAC 33.1-15-17.

F. Like-Kind Engine Replacement:

This permit allows the permittee to replace the existing engine(s) with a like-kind engine. Replacement is subject to the following conditions.

- 1) The Department must be notified within 10 days after change-out of the engine.
- 2) The replacement engine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine it is replacing.
- 3) The date of manufacture of the replacement engine 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 is subject to the same state emission limits as the existing engine 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.
- 5) Emission testing shall be conducted within 180 days after start-up of the new engine to determine the emission rates of NO_x and CO from the engine.

G. Engines Emissions Testing:

Within 12 months after issuance of a renewal Permit to Operate, the permittee shall conduct emissions tests to determine the compliance status of the (fill in information on Emission Unit(s)) with respect to the CO, NO_x and, if applicable, VOC emission limits specified in Condition 7.A 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 at least three runs, with each run at least 20 minutes in length. Test methods other than those listed may be used upon approval by the Department.

Note: This requirement may be satisfied if recurring testing is otherwise performed in accordance with requirements under 40 CFR 60, Subparts IIII or JJJJ, or 40 CFR 63, Subpart ZZZZ.

The permittee shall notify the Department using the form in the Emission Testing Guideline, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department at least five days prior to the scheduled test date and coordinate a new test date with the Department.

6. General Conditions (Procedural):

A. Source Operations:

Operations at the installation shall be in accordance with statements, representations, procedures and supporting data contained in the initial application, and any supplemental information or application(s) submitted thereafter. Any operations not listed in this permit are subject to all applicable North Dakota Air Pollution Control Rules.

B. Alterations, Modifications, or Changes:

Any alteration, repairing, expansion, or change in the method of operation of the source which results in the emission of an additional type or greater amount of air contaminants, or which results in an increase in the ambient concentration of any air contaminant, must be reviewed and approved by the Department prior to the start of such alteration, repairing, expansion or change in the method of operation.

C. Recordkeeping:

The permittee shall maintain any compliance monitoring records required by this permit or applicable requirements. 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 sample, measurement, report or application. Support information may include all calibration and maintenance records and all original strip-chart recordings/computer printouts for continuous monitoring instrumentation, and copies of all reports required by the permit.

D. Annual Emission Inventory/Annual Production Reports:

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

E. Malfunction notification:

The permittee shall notify the Department of any malfunction which can be expected to last longer than twenty-four hours and can cause the emission of air contaminants in violation of applicable rules and regulations.

F. Nuisance or Danger:

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

G. Transfer of Permit to Construct:

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

H. Right of Entry:

Any duly authorized officer, employee or agent of the North Dakota Department of Environmental Quality may enter and inspect any property, premise or place at which the source listed in Condition 1 of this permit is located at any time for the purpose of ascertaining the state of compliance with 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.

I. Other Regulations:

The permittee of the source unit(s) described in Condition 1 of this permit shall comply with all State and Federal environmental laws and rules. In addition, the permittee shall comply with all local burning, fire, zoning, and other applicable ordinances, codes, rules and regulations.

J. Permit Issuance:

This permit is issued in reliance upon the accuracy and completeness of the information set forth in the application. Notwithstanding the tentative nature of this information, the conditions of this permit herein become, upon the effective date of this permit, enforceable by the Department pursuant to any remedies it now has, or may in the future have, under the North Dakota Air Pollution Control Law, NDCC Chapter 23.1-06.

7. State Enforceable Only Conditions (not Federally enforceable)

A. Odor Restrictions:

The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which is in excess of the limits established in NDAC 33.1-15-16.