

MEMO TO : File  
Colfax  
Richland County

FROM : Raina Cardwell  
Environmental Scientist  
Division of Air Quality

RE : April 4, 2024 application for a permit to construct

DATE : June 27, 2024

Minnkota Power Cooperative, Inc. (Minnkota) submitted a permit to construct application to the North Dakota Department of Environmental Quality – Division of Air Quality (Department) on April 4, 2024. The application was for a new electric power generation (peaking) facility (Colfax) located in Richland County, North Dakota.

The application requested a permit to construct for the relocation of two Caterpillar diesel engine-driven generator sets (EUs 1 & 2) that are currently located at the Oxbow Plant and permitted under Air Permit to Operate No. AOP-27859 v5.0 to the new Colfax location. There are no changes to the expected operations or emissions from the current Oxbow Plant. The Department determined that air dispersion modeling for Colfax was not required as operations from Colfax are expected to be significantly less than the permit restrictions. In determining this, the Department reviewed the most recent 5 years of reported data from Oxbow. The maximum reported hours of operations per year for this equipment was approximately 22 hours.

Colfax will be a synthetic minor source under the prevention is significant deterioration (PSD) program and Title V operating permit program. The facility-wide potential to emit (PTE) calculations are shown in Table 1.

A complete review of the proposed project indicates that Colfax is expected to comply with the applicable federal and state air pollution rules and regulations. The Department will make a final recommendation regarding the issuance of a Permit to Construct for Colfax following the completion of a 30-day public comment period. The public comment period will run from June 27, 2024, and end on July 27, 2024.

Table 1: Facility-wide PTE for NSR Pollutants (tons per year) <sup>A</sup>

| Emission Unit Description      | Emission Unit (EU) | Emission Point (EP) | CO          | NO <sub>x</sub> | SO <sub>2</sub> | VOCs        | PM          | PM <sub>10</sub> | PM <sub>2.5</sub> | Total HAPs | Largest Single HAP |
|--------------------------------|--------------------|---------------------|-------------|-----------------|-----------------|-------------|-------------|------------------|-------------------|------------|--------------------|
| Generator set                  | 1                  | 1                   | 6.6         | 47.5            | 0.0             | 8.3         | 7.1         | 7.1              | 7.1               | 0.1        | 0.0                |
| Generator set                  | 2                  | 2                   | 6.6         | 47.5            | 0.0             | 8.3         | 7.1         | 7.1              | 7.1               | 0.1        | 0.0                |
| <b>Total (with Fugitives):</b> |                    |                     | <b>13.1</b> | <b>95.0</b>     | <b>0.1</b>      | <b>16.6</b> | <b>14.3</b> | <b>14.3</b>      | <b>14.3</b>       | <b>0.2</b> | <b>0.1</b>         |

<sup>A</sup> Abbreviations:

PM: filterable and condensable particulate matter

PM<sub>2.5</sub>: filterable and condensable particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ( $\leq 2.5 \mu\text{m}$ )PM<sub>10</sub>: filterable and condensable particulate matter with an aerodynamic diameter less than or equal to 10 microns ( $\leq 10 \mu\text{m}$ ) including PM<sub>2.5</sub>SO<sub>2</sub>: sulfur dioxideNO<sub>x</sub>: oxides of nitrogen

CO: carbon monoxide

VOCs: volatile organic compounds

HAPs: hazardous air pollutants as defined in Section 112(b) of the Clean Air Act

RLC:er