MINNESOTA POLLUTION CONTROL AGENCY

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June 29, 2023

Justin Reid
Duluth Steam Plant 1
One Lake Place Dr
Duluth, MN 55802-2324

RE: Notice of Compliance for the March 06, 2023, Filterable Particulate Matter, Sulfur Dioxide, and Opacity Performance Test of the Boiler 2 Pursuant to Air Emission Permit Number 13700022-101

Dear Justin Reid:

The Minnesota Pollution Control Agency (MPCA) performance test staff reviewed the final test report for the performance test conducted at Duluth Steam Plant 1 located in Duluth, Minnesota. The test report was submitted April 12, 2023.

Summary of performance test results

Emission unit tested	Limitation basis Pollutant and emission limit	Test result	Compliance status
Boiler 2 EQUI 8/ EU002	Filterable Particulate Matter (PM) <= 0.40 pounds per million Btu heat input (lbs/MMBtu). The potential to emit from the unit is 0.050 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]	Filterable PM 0.0041 lbs/MMBtu	Compliant
	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]	Opacity 0 percent opacity	Compliant
	Sulfur Dioxide <= 4.0 lbs/MMBtu. The potential to emit from the unit is 1.22 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]	Sulfur Dioxide 0.54 lbs/MMBtu	Compliant
	The Permittee shall limit boiler Heat Input <= 92 million Btu per hour 24-hour block average while combusting any wood. This heat input equals 80% of the boiler capacity. [Minn. R. 7007.0800, subp. 2, Minn. Stat. 116.07, subd. 4a]	Heat Input 90.3 million Btu per hour	Verified
Fabric Filter TREA 1/ CE005	Pressure Drop >= 0.25 and <= 15.0 inches of water (in. w.c.) [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]	Pressure Drop 6.3 in. w.c.	Verified

The test was conducted on Boiler 2 while combusting coal for a steam production rate of 64,200 pounds/hour.

The Emission Inventory rule, Minn. R. 7019.3000 to 7019.3100, requires the calculation of emissions based on an established hierarchy. In the absence of Continuous Emission Monitor data meeting the requirements of Minn. R. 7019.3040, a performance test must be used. When a performance test for particulate matter, carbon monoxide, nitrogen oxides, sulfur oxides, volatile organic compounds or lead is conducted and meets the requirements of Minn. R. 7017.2001 to 7017.2060, the results must be used to calculate emissions, unless specified otherwise by Minn. R. 7019.3000 to 7019.3100. It is the Regulated Party's responsibility to ensure the results of performance tests are accounted for in their annual emission inventory submittal. Note that the final decision to approve the emission factor for any given inventory year will be made by the MPCA Emission Inventory Coordinator.

If you have questions or comments regarding the content of this letter, please contact me at 651-757-2652 or andrew.place@state.mn.us

Sincerely,

Andy J. Place

This document has been electronically signed.

Andy Place
State Program Administrator Principal
Industrial Division

AJP:rc

cc: Brenda Vaness, MPCA
Activity ID REP20230002 @ 4233