



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



LIESL EICHLER CLARK
DIRECTOR

April 15, 2019

Mr. Thomas O'Brien
Tilden Mining Company
P.O. Box 2000
Ishpeming, Michigan 49849

Dear Mr. O'Brien:

SUBJECT: EU-BOILER4, Continuous Parametric Monitoring System (PEMS), Initial Performance Testing, Permit: MI-ROP-B4885-2017a, SRN: B4885

The Department of Environmental Quality (DEQ), Air Quality Division has completed a review of the protocol for the initial performance testing of the PEMS installed on EU-BOILER4. The PEMS is being installed to continuously report nitrogen oxide (NO_x) emissions in terms of lb/MMBtu for this natural gas fired boiler. This testing is required by Title 40 of the Code of Federal Regulations (40 CFR) Part 60, Subpart Db and permit MI-ROP-B4885-2017a.

Testing will be performed in accordance with 40 CFR Part 60, Appendix A, Methods 3A, 7E, 19; and Appendix B, Performance Specification 16. A relative accuracy test audit (RATA) will be performed consisting of nine runs at each of three loads: 45%, 75% and 90%. A 24-point stratification test will be performed; sampling for the RATA will use a 3-point traverse unless the stratification test results allow the use of a single point. The RATA will be calculated as NO_x ppm, NO_x lb/MMBtu, and oxygen in percent.

The report of this testing will include:

- the gas analyzer calibration error, system bias, zero and calibration drift data, all in tabular format;
- the reference method and PEMS 1-minute averages and run averages;
- boiler steam load and natural gas firing rate; and
- RATA, variance, F-test, and correlation analysis.

All aborted or failed runs must be included in the report. Send a complete copy of the report to:

Mr. Joseph Scanlan
Department of Environmental Quality
Air Quality Division
1504 West Washington Street
Marquette, MI 49855

Ms. Karen Kajiya-Mills
Department of Environmental Quality
Air Quality Division
525 West Allegan Street,
2nd Floor South
Lansing, MI 48933

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The RATA is scheduled for the week of May 19, 2019. Please provide notification of the specific test date to Mr. Joseph Scanlan of the Upper Peninsula District Office at 906-458-6405, and to me. If you have any questions regarding this letter, please contact me by telephone or e-mail at gaslolit@michigan.gov.

Sincerely,



Tom Gasloli
Technical Programs Unit
Field Operations Section
Air Quality Division
517-284-6778

cc: Mr. Stephan Byrd, Network Environmental
Ms. Jennifer Fantich, Wunderlich-Malec EIS
Mr. Edward Lancaster, MDEQ
Mr. Joseph Scanlan, MDEQ