

PM control devices, they are required to use PM spiking. However, the low PM standard in the Rule makes developing this correlation curve “virtually impossible.”¹⁵ Similarly, the Quality Assurance/Quality Control (QA/QC) criteria for CEMS are extremely difficult to meet at such low levels.¹⁶

At the time of the proposed rule, no commercially available PM CEMS would have been able to meet the tight confidence and tolerance intervals associated with the low proposed PM standard.¹⁷ EPA was, thus, forced to address these issues in the final MATS RTR by adjusting the QA criterion and correlation procedures.¹⁸ These changes are not enough to address the fundamental issue that PM CEMS are simply not able to reliably measure such low PM levels the error rates of the instrument prohibit it.¹⁹ Therefore, the CEMS technology to demonstrate compliance with the new PM standard is unavailable.

Big Stone has been able to demonstrate very low PM emission rates with its current control technology. It initially demonstrated compliance via quarterly stack testing. After meeting the criteria to attain LEE status under the MATS Rule for PM, Big Stone has demonstrated compliance on an every 3-year basis. Notably, Big Stone Plant’s previous two LEE qualification stack test results have been 0.0003 lb/MMBtu and 0.0005 lb/MMBtu, respectively. These test results are at least 95% less than the 0.010 lb/MMBtu limit being advanced by the MATS RTR. Big Stone cannot accurately demonstrate compliance using PM CEMS because CEMS cannot reliably verify its low levels of PM that would comply with the new standard.²⁰

Further compounding the problem, the Big Stone baghouse does not have the ability to increase PM emissions by varying process operations or detuning PM control devices due to the efficiency and permanence of the plant’s installed pollution control equipment. The baghouse does not have a bypass.²¹ To comply with the MATS RTR PM CEMS requirements, Otter Tail and the Co-owners will need to perform PM spiking, but have identified only one single provider of this service in the country. Considering that approximately 60% of existing coal-fired facilities will need to perform PS-11 testing in the next two years, there is a significant chance that this single company will not have the capacity to provide testing services to all affected facilities. This is especially true when considering monitor fabrication, installation, and operational timelines. Otter Tail and the Co-owners expect to encounter significant difficulty in acquiring these services by the July 6, 2027 compliance deadline.

¹⁵ PGEN Comments at 22.

¹⁶ See *Comments of the Class of '85 Regulatory Response Group on the Proposal on National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review*, Docket No. EPA-HQ-OAR-2018-0794-5989, at 16 (June 28, 2024) (Class of '85 Comments).

¹⁷ PM CEMS Technical Memo at 5.

¹⁸ See 89 Fed. Reg. at 38528-29.

¹⁹ See PGEN Comments at 23 (finding insurmountable the “uncertainties inherent the in the measurement device” and the “problems associated with relative size of the uncertainty to the limited data range of fPM concentrations and the confidence levels and tolerances”); see also Class of '85 Comments at 18.

²⁰ See Otter Tail Comments at 10.

²¹ Adding a bypass would likely require an engineering study and then control device modifications. These efforts would be expensive and likely not achievable before the 2027 compliance date.