

depending on location. Ash content of the coal being fired may impact the ability of units to comply with the fPM limit, regardless of the effectiveness of the control technologies in place. Other operational factors such as cleaning frequency, operational duration, and filter change-out frequency of baghouses impact the performance of controls and, thus, the facility's ability to comply with the proposed limit. These concerns are exacerbated by the companion requirement to measure compliance using monitors that have not been demonstrated to be reliable.

II. CEMS Technology is Not Available by the Rule's Compliance Date

The MATS RTR also requires coal-fired units to implement the revised fPM limit of 0.010 lb/MMBtu using CEMS, rather than periodic stack testing. There are technological limitations, as well as costs and market limits, that make adoption of CEMS by July 2027 unattainable.

PM CEMS does not provide direct measurements; it uses correlation curves to calculate emissions levels. However, the low fPM standard in the Rule makes developing this correlation curve “virtually impossible.” *PGEN Comments on EPA's Proposed Rule: NESHAP Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review*, Docket No. EPA-HQ-OAR-2018-0794-5994, at 22 (June 28, 2023) [hereinafter “PGEN Comments”] (citing and attaching Ralph L. Roberson, *Technical Comments on EPA's Proposed Rule: Mercury and Air Toxics Standards Risk and Technology Review*, at 3 (2023) [hereinafter “PM CEMS Technical Memo”]). Similarly, the QA/QC criterion for CEMS are extremely difficult to meet at such low levels. *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) [hereinafter “Class of '85 Comments”]. In fact, at the time of the proposed MATS RTR, no commercially available PM CEMS would have been able to meet the tight confidence and tolerance intervals associated with the low proposed fPM standard. PGEN Comments at 23 (citing PM CEMS Technical Memo at 5). EPA was, thus, forced to address these issues in the final MATS RTR by adjusting the QA criterion and correlation procedures. *See* 89 Fed. Reg. at 38,528-29. However, it has not yet been shown that these changes are enough to address the fundamental issue that PM CEMS has difficulty reliably measuring such low fPM levels due to the error rates of the instrument. *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. And, in reality, units would need to target emissions below 0.010 lb/MMBtu in order to ensure continuous compliance. *See* Pet'rs' Brief at 72. Therefore, the CEMS technology to demonstrate compliance with the revised fPM standard is unavailable.

Second, there are significant costs and market limitations associated with PM CEMS, which make it “not available.” Installing and operating CEMS is more costly than stack testing. *See* PGEN Comments at 25-26. Costs include purchasing and installation of CEMS, as well as potential modifications to the units to accommodate CEMS, extended correlation testing, and annual operational costs. *See id.* at 26; *see also* Class of '85 Comments at 18 (estimating \$180,000 to \$400,000 for “site preparation and engineering analysis, analyzer equipment and installation