

As noted above, PS 11 specifies acceptable criteria for a correlation directly related to the applicable emissions limit. If we use 7.5 mg/acm for EPA's proposed fPM limit of 0.010 lb/10⁶ Btu,¹³ the 95% confidence interval would have to be less than or equal to 0.75 mg/acm. Likewise, the tolerance interval would have to be less than or equal to 1.88 mg/acm. We are not aware of any data or technical support that any commercially available PM CEMS is capable of meeting these very tight confidence and tolerance intervals, and EPA cites none. Adding to the challenge of achieving these strict confidence and tolerance intervals is the fact that these intervals will be at or near the method detection limit of the EPA Method 5, even with extended run times. While PS-11 ascribes all of the measurement errors to the PM CEMS, variability in reference method measurements at these low PM concentrations will likely result in numerous PS-11 failures.

PM CEMS and New EGUs

EPA appears to dismiss concerns with PM CEMS measurements at the low PM concentrations that would be required by the proposed emission standard (0.010 lb/10⁶ Btu) by stating: (1) PM CEMS are mandated for new EGUs and (2) the revised fPM emission standards for existing EGUs and the fPM for new EGUs are approximately the same (0.010 lb/10⁶ Btu v. 0.090 lb/MWh).¹⁴ We have two issues with EPA's use of new EGUs to support PM CEMS at low concentrations.

Assuming PM CEMS are required for new EGUs, EPA's claim is without merit because PM CEMS are not and have never been demonstrated on new EGUs. The reality is there are no new EGUs in operation, and there is never likely to be one. Apparently, EPA agrees because in the Agency's recently signed proposed rule for controlling greenhouse gas emissions from the power sector, EPA explains not revising the NSPS for newly constructed fossil-fuel-fired steam generating units with the following sentence: "[t]his is because the EPA does not anticipate that any such units will construct or reconstruct and is unaware of plans by any companies to construct or reconstruct a new coal-fired EGU."¹⁵ Supporting the proposed use of PM CEMS at low fPM concentrations by stating the requirement is consistent with a theoretical requirement for new EGUs that have not been built and will never be built is no support at all.

Discussion of PM CEMS Costs

EPA's statement, "not all EGU owners or operators chose the most cost-effective means of demonstrating compliance with the fPM emission limits"¹⁶ is as insulting as it is incorrect. In 2015, we were asked by an EGU owner to estimate the cost over a 10-year

¹³ Base on a stack CO₂ concentration of 12.5% (wet basis) and a PM CEMS detector temperature of 320 °F.

¹⁴ For the MATS rule, a new EGU is defined as one that commenced construction after May 3, 2011.

¹⁵ 88 Fed. Reg. 33,245 (May 23, 2023).

¹⁶ 88 Fed. Reg. 24,872 (April 24, 2023).