

EPA Random Error Memo

EPA states that the impact of sampling times and random errors on measurable emission limits is described in a memorandum in the docket.¹⁸ The Memorandum statement, “2 mg/dscm for a one-hour test run (which is equivalent to a mass per heat input value of 0.0082 lb/mmBtu),” is simply incorrect. A fPM concentration of 2 mg/dscm is approximately 0.0021 lb/10⁶ Btu assuming nominal CO₂ concentration of 10.5 % (dry).

The following Memorandum statement “one can calculate the range of the contribution of random error to the total PM CEMS tolerance to be between thirty-six and seventy-three percent” may or may not be incorrect. The Memorandum provides neither a reference nor a method for how random error is defined or calculated. Likewise, there are no text or equations to support the results shown in Table 1. Frankly, the Agency should be embarrassed to include in a rulemaking docket a 2-page Memorandum that is so poorly explained or substantiated.

CONCLUSIONS

First, RLR is not certain the RTR process affords EPA the latitude to make changes to compliance determination procedures. However, as discussed above, the technical justification for mandating PM CEMS, especially if EPA were to lower significantly the fPM standard (as it currently has proposed) is deeply flawed and fraught with several incorrect or inaccurate statements, both concerning the ability to obtain meaningful correlations over a limited data range and the cost of PM CEMS. Thus, for the reasons explained in this memorandum, EPA would be well advised to maintain the quarterly stack testing option for fPM in its MATS rule. Moreover, if EPA were to lower the fPM limit to 0.01 lb/10⁶ Btu, EPA should follow the precedent the Agency set in the Portland Cement rule and withdraw PM CEMS as a compliance testing option. Periodic, quality stack tests will be a much better indicator of compliance than continuous data of questionable quality.

If you have any questions regarding our technical comments or require additional information, please do not hesitate to contact me (919) 696-7008 or rlph.roberson@gmail.com.

¹⁸ “PM CEMS Random Error Contribution by Emission Limit,” Docket ID No. EPA-HQ-OAR-2018-0794-0794 (hereinafter “Memorandum”).