In addition, use of PM CEMS may not be appropriate for all coal-fired units given the challenges associated with: (i) meeting the Quality Assurance-Quality Control ("QA-QC") criteria required under Procedure 2; and (ii) establishing the correlation curve using Performance Specification 11 ("PS-11"). First, when a PM CEMS fails to meet the QA-QC criteria required under Procedure 2, the collected data is considered out-of-control and is no longer considered valid.[74] Because the measured emissions values are dependent upon laboratory analysis, an owner/operator has no real time indication that its EGU might have failed the required QA-QC criteria until several weeks after the testing has been completed. This can result in hundreds of hours of monitor downtime being created retroactively after the QA-QC criteria failure has been identified. Monitor downtime is required to be reported as a deviation under the MATS rule, and most states have minimum data availability requirements that could result in enforcement actions. At the more stringent fPM criteria of 0.010 lb/MMBtu (or 0.006 lb/MMBtu), the likelihood of out-of-control periods increases. This downtime is not reflective of poor maintenance or operation but rather the difficulties associated with the required calibration procedure at such low emission levels. Thus, in conjunction with this rulemaking, EPA should include additional provisions in Appendix C of 40 C.F.R. Part 63, Subpart UUUUU to mitigate the effects of this downtime, such as provisional data periods following a failed RRA or RCA. Moreover, there currently is no calibration procedure available that can accurately verify continuous measuring of fPM at levels as low as 0.010 lb/MMBtu, much less 0.006 lb/MMBtu.[75]

EPA attempts to address these issues by proposing to amend Table 2 of 40 C.F.R. Part 63 Subpart UUUUU to require sample volumes of at least 4 dscm per run, rather than at least 1 dscm per run.[76] While the additional sample volume will reduce measurement uncertainty, it does not address the unit and control device operating variability that occurs during correlation testing that would make it difficult to achieve the distinct PM test conditions required under PS-11 and Procedure 2. In addition, when developing the initial correlation curve or conducting ongoing RCAs, emissions controls are de-tuned to simulate upset conditions and to achieve dust loadings at mid- (25-75% of the maximum expected concentration) and high- (50-100% of the maximum expected concentrations) levels.[77] For units equipped with WFGD systems, expanding the test runs to collect 4 dscm of sample volume significantly increases the flyash carryover to the scrubber.[78] This off-spec material is then required to be landfilled instead of beneficially reused.

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[74] *See* Appendix F, 40 C.F.R. Part 60, Procedure 2.

[75] *See* Nicklin, D. et. al., "Techniques to measure particulate matter emissions from stationary sources: A critical technology review using Multi Criteria Decision Analysis (MCDA)," *Journal of Environmental Management*, 296:18-20 (2021).

[76] *See* MATS RTR Rule Text Redline Strikeout document (final) ("Redline Final"), posted on Apr. 25, 2023, at PDF p. 86, 89, 91, 96, 98, Doc. ID. EPA-HQ-OAR-2018-0794-5831. *See also* 88 Fed. Reg. at 24,873-74.

[77] Trying to simulate different ranges of particulates created for test activities often has unintended consequences on the FGD's performance that can take days to normalize and clean up so that the equipment resumes performing as designed. Any additional ash carryover into the FGD increases the opportunity to blind the FGD such that the only recovery is to shut the unit down to add lime or to dump the ash into a storage tank because the material can no longer be stored in the onsite landfill as the chloride content of the sludge, at that point, has become too high.

[78] Ash reinjection may be not feasible for some sources due to stratification issues or ash drop-out effects.