

Question 7.10

Topic: Redundant Backup Monitoring

Question: We are planning to install completely redundant CEM systems on all of our emission stacks. These systems will be on hot standby. In other words, our backup systems will be certified and will undergo all of the same QA/QC procedures and testing that our primary systems do. The backup monitors will operate continuously as if they were our primary monitors.

We plan to use the backup data when our primary monitor is out of service or the primary data is invalid. This will minimize our use of the missing data procedures.

It is our understanding that because our backup system will be on hot standby it will not be necessary to run a linearity check before using the data. Please confirm.

Answer: Your understanding is correct. Section 75.20(d) states that before a *nonredundant* backup monitor is used, it must undergo a linearity check. This requirement applies when the backup analyzer has been on the shelf and would need to be calibrated before being placed in service. However, for a *redundant* backup system, which is certified, operated, calibrated and maintained in the same manner as a primary system there is no need to perform a linearity check each time the backup system is brought into service.

A redundant backup system must comply with the primary CEM quality assurance and quality control requirements in Appendix B (one of which is to perform quarterly linearity checks), with the exception that daily calibration error tests are only required to validate data when the redundant backup system is actually used to report Acid Rain Program data. Provided that the certified redundant backup monitor is operating in control with respect to all of its daily, quarterly, semiannual, and annual QA requirements, it may be used to generate quality-assured data whenever the primary monitor is down.

Note: A redundant backup monitoring system is designated as "RB" in the electronic data reporting format under the <SystemDesignationCode> data element in the <MonitoringSystemData>.

References: § 75.20(d)

History: First published in November 1993, Update #2; revised in October 1999 Revised Manual; revised in 2013 Manual