



At a Glance

Why We Did This Project

We conducted this audit to determine whether selected continuous emissions monitoring data meet applicable quality assurance and quality control criteria.

Continuous emissions monitoring systems (CEMSs) are required under some U.S. Environmental Protection Agency (EPA) regulations and programs to continuously monitor actual emissions from stationary sources. Two programs that require the use of CEMSs are the Acid Rain Program (ARP) and the Cross-State Air Pollution Rule (CSAPR), which are intended to reduce emissions of sulfur dioxide and nitrogen oxides. These emissions trading programs are designed to improve air quality by setting emissions limits and monitoring emissions from power plants. It is important that the CEMS data reported to the EPA be accurate and meet regulatory requirements because these data are used to assess compliance with trading program emission limits and progress toward environmental goals.

This report addresses the following:

- *Improving air quality.*

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EPA Effectively Screens Air Emissions Data from Continuous Monitoring Systems but Could Enhance Verification of System Performance

What We Found

The EPA's automated screening of facility-reported CEMS data worked as intended and was effective in verifying the quality of the reported data. However, we found a small number of inaccuracies and inconsistencies in the reported data. While these instances had no impact on whether the data met quality assurance requirements, the inaccurate data could have a negative impact on data users by providing inaccurate or misleading information. The EPA can prevent these problems by adding specific screening checks to its existing reporting software.

Data from CEMS are used to determine whether sources, such as power plants, comply with emissions limits designed to improve air quality and achieve environmental and public health goals.

Although the EPA's automated screening process was effective, the validity of the reported data can only be fully established when that process is supplemented with on-site field audits to verify that CEMS monitoring requirements were met. However, we found that the EPA and state agencies conducted a limited number of these audits. Out of over 1,000 facilities subject to ARP and/or CSAPR requirements, the EPA conducted field audits at only 16 facilities between 2016 and the end of June 2018. In addition, nine of the 10 state agencies we contacted were not conducting field audits. In response to our work, the EPA initiated a process to develop a streamlined CEMS field audit approach that state and local agencies can use when conducting other on-site visits at facilities.

Recommendations and Planned Agency Corrective Actions

We recommend that the Assistant Administrator for Air and Radiation develop and implement electronic checks to retroactively evaluate CEMS data where monitoring plan changes have occurred, and develop and distribute to state and local agencies a streamlined field audit process. The EPA agreed with our recommendations and provided acceptable corrective actions and completion dates. All recommendations are considered resolved with corrective actions pending.