



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Determining the Primary Quality Assurance Organizations for Industrial Monitors in Support of the SO₂ Data Requirements Rule

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TO: Regional Air Program Managers and Staff

This memo provides an OAQPS opinion that State, Local, or Tribal (S/L/T) monitoring organizations should attempt to incorporate industries or contractors implementing the SO₂ monitoring for the SO₂ Data Requirements Rule into the S/L/T's primary quality assurance organization (PQAO). Details and rationale of this opinion follow.

Background

On August 10, 2015, the SO₂ Data Requirements Rule (DRR) was signed, and subsequently published in the Federal Register on August 21, 2015 (80 FR 51052). The DRR requires the characterization of air quality around sources emitting 2,000 or more tons per year of SO₂, through either modeling or monitoring. States may also satisfy the DRR with respect to these sources by providing proof of federally enforceable emissions limits. Timelines within the rule are as follows:

- January 15, 2016- Air agency identifies sources exceeding threshold and other sources for which air quality will be characterized.
- July 1, 2016- Air agency specifies (for each identified source) whether it will monitor air quality, model air quality, or establish an enforceable limit.
 - Air agency also accordingly submits a revised monitoring plan, modeling protocol, or description of planned limits on emissions to less than 2,000 tpy.
- January 2017
 - New monitoring sites must be operational by January 1, 2017.
 - Modeling analyses submitted to EPA by January 13, 2017.
 - Documentation of federally enforceable emissions limits and compliance must be submitted to EPA by January 13, 2017.

Discussion

If the state, local, or tribe (S/L/T) decides to monitor, they may install and operate monitors themselves, or the S/L/T may allow the SO₂ monitors to be operated by another party, such as industry or possibly industry contractors. In either scenario, the S/L/T is responsible for ensuring that the DRR requirements are satisfied. However, this option for delegation raises some concern about what organization will be specifically responsible for the activities to ensure the quality of the data and therefore identified as the Primary Quality Assurance Organization (PQAO). The information below on PQAOs can be found in 40 CFR Part 58 Appendix A¹:

3.1 Primary Quality Assurance Organization. A primary quality assurance organization is defined as a monitoring organization or a coordinated aggregation of such organizations that is responsible for a set of stations that monitors the same pollutant and for which data quality assessments can logically be pooled. Each criteria pollutant sampler/monitor at a monitoring station in the SLAMS network must be associated with one, and only one, primary quality assurance organization.

3.1.1 Each primary quality assurance organization shall be defined such that measurement uncertainty among all stations in the organization can be expected to be reasonably homogeneous, as a result of common factors. Common factors that should be considered by monitoring organizations in defining primary quality assurance organizations include:

(a) Operation by a common team of field operators according to a common set of procedures;

(b) Use of a common QAPP or standard operating procedures;

(c) Common calibration facilities and standards;

(d) Oversight by a common quality assurance organization; and

(e) Support by a common management, laboratory or headquarters.

Each criteria pollutant ambient air monitor, including those SO₂ monitors used to comply with the DRR, must be associated with only one PQAO.

It is EPA's opinion that the S/L/T monitoring agency should strongly consider including monitors operated by other parties (e.g. industry or contractors) to satisfy the DRR requirements as part of the S/L/T PQAO. The advantages for this rationale include consideration of resources needed to meet the following requirements:

- **QA Independence-** The S/L/T organizations are required to have or establish an independent QA management function that has sufficient technical expertise and management authority to conduct independent oversight and assure the implementation of the organization's quality system relative to the ambient air quality monitoring program and should be organizationally independent of environmental data generation activities. The industry/contractor operators, as a separate PQAO, would have to have the resources and personnel to establish this independence and document it in a QMP (see below).
- **Quality System Documentation-**The S/L/T quality management plan (QMP), quality assurance project plans (QAPP) and standard operating procedures (SOPs) can be used for these monitors. Our assumption is that the S/L/T monitoring agency already have these documents written and approved. If the industry/contractor operators were to be its own PQAO, it would have to develop these documents

¹ The PQAO definition is currently found in the 40 CFR Part 58 App A Section 3.1. Appendix A is currently under revision and if finalized, the PQAO definitions will be in 40 CFR Part 58 App A Section 1.2

and have them approved by the state agency and reviewed/approved by the EPA Region before the start of monitoring on January 1, 2017. Although there would be an opportunity to share standard operating procedures, a QAPP is more specific to an individual project and a QMP is even more specific to the industry/contractors organization so they are less “transferable” from one organization to the next.

- **The National Performance Audits Program (NPAP)**- NPAP is implemented annually at each PQAO and at 20% of the sites within the PQAO. If the DRR SO₂ sites are within the state PQAO then NPAP can be implemented at least once (minimally) within the first three year period they are operating the site. This is important because monitors uniquely operated to satisfy the DRR can potentially be shut down after 3 years of operation if they show a design value less than 50% of the NAAQS. In using NPAP, State and Tribal Air Grant (STAG) funds would be redirected (as is the normal case) back to EPA to federally implement the NPAP audits. We also suggest that these new SO₂ sites be given some priority and be audited ASAP. If an industry/contractor operator were to be its own PQAO it would have to implement an NPAP audit each year (since the requirement is for each PQAO to be audited annually). So, the cost per monitoring site for implementing NPAP audits at a PQAO with one or only a few sites will be higher than for a PQAO (i.e., state agency) that has more monitoring sites. Since almost all air monitoring agencies allow federal implementation of NPAP, the state would have provide the additional resources to EPA to implement these audits since EPA cannot receive funds from industry. Alternatively the industry/contractor operator would have to find certified NPAP auditors to perform the NPAP audits. At present there are not many independently certified NPAP auditors available so this may be a difficult, but not impossible, option.
- **Technical Systems Audits**- EPA Regions perform technical systems audits on PQAOs every three years and visit a percentage of the air monitoring sites. If the industry operator decides to be its own PQAO, additional audits would be required to be performed on each industrial or other party PQAO by the EPA Regions.

In addition to the QA related documentation and programs, the S/L/T agency and the industry/contractor operator would need to determine how the following would be met:

- Submission of an Annual Network Plan
- Annual Certification of data
- Meeting data submission requirements in 40 CFR 58.16

Based on the anticipated increase in work-load within the next year as state, local, and possibly tribal agencies, industrial, or other organizations make efforts to select and install monitoring sites, we must bear in mind the implementation burdens described above. These new sites must have accompanying quality assurance personnel and quality system documentation necessary to implement the monitoring program on time. Industry/contractors may be more familiar with PSD monitoring versus monitoring for NAAQS comparisons. Monitoring for NAAQS comparisons contain additional QA, reporting and certification related burdens. Therefore, we strongly suggest the state, local, or tribal air agencies consider remaining the PQAO for any industrial or other party monitoring that might be used to satisfy the DRR. If not, EPA will need to be aware of those situations in order to track their progress on meeting the quality system for this ambient air monitoring activity prior to the start of any monitoring in support of the DRR.