January 25, 2024

MEMORANDUM

SUBJECT: Implementing an Ambient Air Quality Monitoring Asset Management Framework

FROM: Richard Wayland, Director
Air Quality Assessment Division

TO: Regional Air Division Directors, Region 1 – 10

In November of 2020, the Government Accountability Office (GAO) released a report titled *Air Pollution – Opportunities to Better Sustain and Modernize the National Air Quality Monitoring System*.[1] In the report, the GAO provided two key recommendations for the U.S. Environmental Protection Agency (EPA) to work with state, local, and Tribal (SLT) air agencies to: 1) develop, make public, and implement an asset management framework for consistently sustaining the national ambient air quality monitoring system, and 2) develop and make public an air quality monitoring modernization plan. In response to this report, this memo is focused on the first recommendation. A separate document, at a later date, will address modernization including a summary of actions using supplemental appropriations from the American Rescue Plan Act of 2021 and Inflation Reduction Act of 2022.

The EPA is implementing an asset management framework for SLTs that focuses on assets that comprise the collective national ambient air quality monitoring network across the United States. The GAO suggests, and the EPA agrees, that SLTs will benefit by having a standard set of metrics and information that, at a minimum, will allow for and ensure that air agencies utilize a basic inventory management process.

Asset Management Framework for Ambient Air Monitoring

Asset management can be defined as the systematic integration of advanced and sustainable management techniques that focus on the long-term life cycle of assets and their sustained performance. Asset management improves decision making throughout the lifecycle of an asset, resulting in lower total costs of ownership balanced with increasing asset availability and reliability, which are critical to meeting program objectives and fulfilling deliverables.

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[1] *Air Pollution – Opportunities to Better Sustain and Modernize the National Air Quality Monitoring System*
https://www.gao.gov/products/gao-21-38

The EPA, as part of its response to the GAO's recommendations regarding the national ambient air quality monitoring networks, worked with SLTs to create a nationally applicable framework for asset management. In this framework, SLTs will collect and organize specific information about their ambient air quality monitoring assets and submit an annual asset management report to the EPA, via their respective EPA Regional Office, on an annual basis. This process involves air agencies identifying, ascertaining, documenting, and tracking critical pieces of information and metrics about certain types of ambient monitoring related assets in their possession. **Attachment 1** describes the specific data fields that SLTs should include in their annual asset management report.

This information will allow air agencies and the EPA to answer questions that aid in informing air monitoring policies and procedures related to the national ambient air monitoring network. For example, SLTs may use the information to optimize air monitoring network investments and/or EPA may use the submitted data to inform funding allocations in the event of supplemental appropriations. Therefore, it is in the best interest of each air agency to submit an accurate and comprehensive annual asset management report that represents their network.

Annual Deadlines and Reporting Process

Annual SLT air monitoring asset reports should be submitted to the EPA concurrently with the submission of an air agency's Annual Monitoring Network Plan (AMNP), which is due on July 1 of each year (see 40 CFR part 58.10). The EPA has developed a spreadsheet template consistent with the fields in **Attachment 1** for SLTs to populate and submit as their annual asset management report.

Additional Information

Please share this memorandum with your staff, as well as the appropriate contacts at state, local, and Tribal air agencies. Because the air monitoring asset management framework is a new process, the EPA Regional Offices will work with air agencies on timing and reporting for their first submission in July 2024. The EPA anticipates reviewing the asset management framework as needed to improve the processes, maximize usefulness, or add requirements after the first year of implementation.

Agency-specific asset management questions may be directed to the relevant EPA Regional Office air monitoring contacts. Questions on this memorandum and the asset management framework may be directed to Corey Mocka at (919) 541-5142 or *mocka.corey@epa.gov*.

Attachments:
1. Annual Asset Management Report Fields

ATTACHMENT 1:
Annual Asset Management Report Fields

All fields are critical unless otherwise noted.

Data Field	Data Field Type	Data Field Description
Applicability Year	Text	Calendar year in which the asset is being submitted
Asset Owner	Text	The entity that owns the asset, typically the state, local, or Tribal air agency
State	Text	State where the asset is located
Asset Type	Choice	Equipment category type (e.g., Data Logger, Pollutant Monitor, Dilution System, Rack, etc.)
Asset Status	Choice	Identifies whether the asset is currently being utilized (in-use or not deployed)
Asset Manufacturer	Text	Name of Instrument/Asset Manufacturer
Asset Model	Text	Model Series for the Asset
Asset Serial ID	Text	Serial number as provided, printed, or labeled on instrument, and/or coded into firmware by manufacturer
Asset Acquisition Date	Date	Date that the asset was obtained, regardless of new/used status
Asset Purchase Price	U.S. Currency	Due to availability of information, this field is encouraged for assets purchased before 2023, and critical for assets purchased in or after 2023
Current Condition	Choice	Condition describes the availability, functionality, operability, and/or reliability of the asset. This is a subjective determination by the owner, but a critical assessment of an asset's usefulness. Options include: • **Good-** asset performing as expected, with no concerns regarding reliability or need for extra maintenance • **Fair-** asset performing at an acceptable level, but there may be concerns with reliability and/or the need for maintenance • **Poor-** asset performing below acceptable levels, or not at all, with concerns for reliability and/or the need for extra maintenance, repair, or replacement
Asset Agency ID (Optional)	Text	Air agencies may use this optional field if they assign a unique asset identifier to the equipment
Agency Comment (Optional)	Text	Air agencies may provide an optional comment related to the asset