



At a Glance

Why We Did This Review

We conducted this evaluation to determine whether the U.S. Environmental Protection Agency (EPA) has used annual air monitoring network reviews and assessments to provide reasonable assurance that Region 6's fine particulate matter (PM_{2.5}) air monitoring network is achieving its objectives.

State, local and tribal agencies monitor the air to determine compliance with national air quality standards, including PM_{2.5} standards. PM_{2.5} can lodge in people's lungs, causing serious health effects such as heart and respiratory disease. Monitoring agencies must prepare annual network plans and conduct periodic network assessments to ensure monitoring requirements are met and resources are efficiently used. Our review focused on Region 6 because of its large population.

This report addresses the following EPA goals or cross-agency strategies:

- *Addressing climate change and improving air quality.*
- *Protecting human health and the environment by enforcing laws and assuring compliance.*

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EPA Can Strengthen Its Reviews of Small Particle Monitoring in Region 6 to Better Ensure Effectiveness of Air Monitoring Network

What We Found

Generally, state and local annual monitoring network plans in Region 6 included most information required by the EPA for PM_{2.5} monitoring. Also, Region 6 identified several issues in its review of annual plans to help ensure monitoring networks were operated in accordance with requirements. However, annual plans did not include evidence to demonstrate monitoring sites were, in fact, in compliance with siting requirements. A lack of clarity in the EPA's requirements for demonstrating siting compliance in the annual plan could have contributed to this happening. The EPA needs to clarify this concept so that states can better address this annual plan requirement.

More thorough reviews of air monitoring networks in Region 6 will better ensure that PM_{2.5} monitoring is adequate to inform and protect the public. EPA's [AirNow website](#) provides the public with real-time air quality data.

It is important that monitoring organizations annually assess site conditions, as these can change over time. In one instance, an annual plan did not identify changed site conditions, resulting in the EPA invalidating years' worth of data. Another annual plan did not include plans to establish near-road PM_{2.5} monitoring sites, instead EPA approved the near-road sites outside of the annual plan process, which limited the opportunity for public comment. Thorough annual plans provide reasonable assurance that monitors are located in the correct areas and will be operated to collect valid data. Properly located and operated monitors help protect public health by demonstrating whether air quality meets health standards and provide the public with information on current air quality.

Opportunities exist in Region 6 to improve periodic network assessments, which are intended to identify opportunities to improve the efficiency of the network. The lack of an established review process resulted in Region 6 accepting incomplete periodic assessments.

Recommendations and Planned Agency Corrective Actions

We recommend that the Assistant Administrator for Air and Radiation clarify what constitutes sufficient evidence to demonstrate compliance with monitor siting and operational requirements when developing annual plans; develop a process to update analytic tools for future assessments; and emphasize the importance of network assessments. We recommend that Region 6 address state-specific deficiencies in monitoring plans and assessments and strengthen its network assessment review process. Based on the EPA's full response, it agreed with all six recommendations in our report and provided proposed corrective actions for each. All report recommendations are resolved.