



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
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DALLAS TX 75202-2733

OCT 03 2017

Mr. Stuart Spencer
Associate Director, Office of Air Quality
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

Dear Mr. Spencer:

Thank you for your correspondence submitting the Arkansas Department of Environmental Quality's (ADEQ) 2017 Annual Monitoring Network Plan (2017 Plan) for ambient air. The U.S. Environmental Protection Agency (EPA) has completed its review of the Plan to ensure it meets the requirements of 40 Code of Federal Regulations (CFR) Part 58 and its appendices.

We appreciate your cooperation and work to submit your 2017 network plan, which we received on July 10, 2017. We applaud the efforts of the ADEQ to manage and maintain the ambient air monitoring network in Arkansas.

The network review process presents an opportunity for the EPA and the ADEQ to collaborate on air monitoring network design. See 40 CFR Part 58 App. D, 1.1.2. The EPA has conducted its review of the 2017 Plan and proposed network modifications to ensure the quality surveillance system continues to meet applicable requirements.

I am pleased to inform you that the 2017 Plan is approved with comments in accordance with 40 CFR §58.10. Details of our review are provided in the enclosure. We have requested that some additional information be provided within 90 days of receipt of this letter, and intend to set up a telephone conference to discuss our comments with you.

We look forward to continued partnership with the ADEQ on our common goals to establish and maintain a successful monitoring network for the state of Arkansas. If you have any questions, please contact me at (214) 665-7242, or your staff may contact Ms. Frances Verhalen, Air Monitoring and Grants Section Chief, at (214) 665-2172.

Sincerely,

A handwritten signature in black ink, appearing to read "Guy R. Donaldson".

Guy R. Donaldson
Associate Director for Air
Multimedia Division

Enclosure

cc: Ms. Lessie Redican
Arkansas Department of Environmental Quality (with Enclosure)

Arkansas Department of Environmental Quality (ADEQ)
2017-2018 Annual Ambient Air Monitoring Network Plan
Technical Comments

The 2017-2018 Arkansas Annual Monitoring Network Plan (ANP), dated July 6, 2017, was received on July 10, 2017. This plan will be referred to as the "2017 Plan" throughout the remainder of this document. In accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 58 and its appendices, the U.S. Environmental Protection Agency (EPA) has reviewed the 2017 Plan, and our comments are provided below. These comments reflect the EPA's efforts in collaboration with the Arkansas Department of Environmental Quality (ADEQ) to maintain an accurate and efficient ambient air monitoring network.

General Comments

We appreciate the ADEQ's submittal of the 2017 Plan in accordance with 40 CFR §58.10.

Operation of monitoring network in accordance with 40 CFR Part 58 and Appendices A, B, C, D and E
We appreciate the ADEQ's operation of the ambient air monitoring network in accordance with 40 CFR Part 58, including the ADEQ's maintenance of its ambient air monitoring network in accordance with 40 CFR Part 58, Appendix A, Appendix D, and Appendix E on p. 2 of the 2017 Plan. For Appendices B and C, we ask that the ADEQ provide a statement addressing operation of the network in accordance with 40 CFR Part 58 Appendix B: Quality Assurance Requirements for Prevention of Significant Deterioration Air Monitoring, and Appendix C: Ambient Air Quality Monitoring Methodology, where applicable, within 90 days of receipt of this letter. See 40 CFR §58.10(a), as amended.

Cross State Metropolitan Statistical Area (MSA) / Core-Based Statistical Area (CBSA) monitoring network responsibilities. The EPA recognizes that State or local agencies must consider MSA/CBSA boundaries and their own political boundaries and geographical characteristics in designing their air monitoring networks. There may be situations where there may be a need to augment or to divide the overall MSA/CBSA monitoring responsibilities and requirements among various agencies to achieve an effective network design. EPA appreciates the notification of changes described in the Memorandum of Agreement (MOA) on Air Quality Monitoring for Criteria Pollutants for the Memphis, Tennessee-Mississippi-Arkansas (TN-MS-AR) Metropolitan Statistical Area (MSA), dated February 16, 2015.¹

Thank you for your efforts to ensure that the information in the ANP and the Air Quality System (AQS) database is complete and consistent.

Ozone (O₃) Monitoring (40 CFR Part 58, Appendix D Section 4.1)

We acknowledge the information provided by the ADEQ in the 2017 Plan regarding O₃ monitoring. The ADEQ is currently meeting and exceeding the network design requirements for ambient air quality monitoring for O₃. See 40 CFR Part 58, Appendix D Section 4.1.

¹ The MOA between the Shelby County Health Department (SCHD), Mississippi Department of Environmental Quality (MDEQ), and the Arkansas Department of Environmental Quality (ADEQ), signed in May and June of 2008, formalizes and reaffirms the collective agreement to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2(e).

Carbon Monoxide (CO) Monitoring (40 CFR Part 58, Appendix D Section 4.2)

The ADEQ is meeting the network design requirements for ambient air quality monitoring for CO. See 40 CFR Part 58, Appendix D Section 4.2.

Nitrogen Dioxide (NO₂) Monitoring (40 CFR Part 58, Appendix D Section 4.3)

On December 30, 2016, the EPA finalized revisions to the minimum monitoring requirements for near-road nitrogen dioxide (NO₂) monitoring by removing the existing requirements for near-road NO₂ monitoring stations in CBSAs having populations between 500,000 and 1,000,000 persons, that were due by January 1, 2017 (see 81 FR 96381, December 30, 2016). Due to these revisions, the requirement for near-road NO₂ monitoring in Little Rock has been removed.

Sulfur Dioxide (SO₂) Monitoring (40 CFR Part 58, Appendix D Section 4.4)

The EPA acknowledges the discontinuation of the SO₂ monitor at the El Dorado site. This monitor was approved for discontinuation in a letter from EPA to ADEQ sent January 11, 2017. Please enter the end date for this monitor in AQS. The ADEQ is meeting the network design requirements for ambient air quality monitoring for SO₂. See 40 CFR Part 58, Appendix D Section 4.4.

We acknowledge receipt of the SO₂ annual report required under 40 CFR §51.1205, which was received with the 2017 Plan.

Lead (Pb) Monitoring (40 CFR Part 58, Appendix D Section 4.5)

The EPA approves the discontinuation of the primary and collocated lead monitors at the National Core (NCore) multi-pollutant monitoring station [AQS ID 05-119-0007, Parameter Occurrence Code (POC) 1 & 2] based on the collection of three years of data and the elimination of the Appendix D requirement to monitor for non-source oriented lead at NCore sites (81 FR 17247, March 28, 2016). The ADEQ currently has no source-oriented lead monitors.

Pb Waivers

The 2017 Plan requested the renewal of Pb source-oriented monitoring waivers for Entergy Arkansas, Inc. (Independence Plant) and Entergy Arkansas, Inc. (White Bluff Plant). The same request was made in the ADEQ's Network Plan submission last year, and the renewals were granted in EPA's response on November 16, 2015. Waivers must be renewed every five years with the network assessment, so we do not consider it necessary to act on the request at this time. With the waivers being requested as part of the five-year assessments, they do not need to be renewed annually. Additionally, the ADEQ mentioned that five previously awarded waivers are no longer needed because the most recent emissions are below the 0.50 ton per year threshold that triggers monitoring.

The ADEQ is meeting the network design requirements for ambient air quality monitoring for Pb. See 40 CFR Part 58, Appendix D Section 4.5.

Particulate Matter (PM) Monitoring

The ADEQ is currently meeting the network design requirements for ambient air quality monitoring for PM. See 40 CFR Part 58, Appendix D, Sections 4.6 and 4.7.

Particulate Matter of 10 Microns or Less (PM₁₀) (40 CFR Part 58, Appendix D Section 4.6)

The EPA appreciates the update about the PM₁₀ Springdale monitor (AQS ID 05-143-0005-81102-1) with an AQS start date of January 1, 2017.

Particulate Matter of 2.5 Microns or Less (PM_{2.5}) (40 CFR Part 58, Appendix D Section 4.7)

The ADEQ currently operates thirteen National Ambient Air Quality Standards (NAAQS) comparable (includes a collocated monitor at the Hot Springs and Parr sites) and five non-NAAQS comparable PM_{2.5} monitors at a total of eleven sites. The ADEQ did not propose to modify the network.

Table 7 of the 2017 Plan indicates the 2014-2016 Design Value for the Doyle Springs Road monitor (AQS ID: 05-119-1008-88101-1) is 10.1 µg/m³ while AQS indicates the Design Value is 10.3 µg/m³. The Doyle Springs Road monitor is located in the Little Rock MSA. While Design Values of monitors in an area impact the number of minimally required PM_{2.5} monitors based on Table D-5 of 40 CFR 58 Appendix D, the EPA agrees with Table 5 of the 2017 Plan that the Little Rock MSA is required by Table D-5 of 40 CFR 58 Appendix D to have two NAAQS comparable PM_{2.5} monitors. ADEQ currently operates two primary NAAQS comparable PM_{2.5} monitors in the Little Rock MSA.

40 CFR Part 58, Appendix D Section 4.7.2 requires the operation of Continuous PM_{2.5} monitors to at least half the number of monitors minimally required by Table D-5. For the Fayetteville, Little Rock, and Memphis MSAs with minimally required monitors per Table D-5, the ADEQ provides Continuous PM_{2.5} monitors at the Springdale (AQS ID 05-143-0005), Doyle Springs Road (AQS ID: 05-119-1008), and Marion (AQS ID 05-035-0005) sites.

The ADEQ provides the Background (Mena, AQS ID 05-113-0002) and Transport (Marion, AQS ID 05-035-0005) PM_{2.5} monitors for the state of Arkansas required by 40 CFR Part 58, Appendix D Section 4.7.3. While Table 2 of the 2017 Plan indicates the Marion site for PM_{2.5} Transport, AQS does not reflect this monitor purpose designation. Please address this matter in AQS.

The Memphis MSA population exceeds 1 million, therefore a Near Road PM_{2.5} monitor is required per 40 CFR 58 Appendix D section 4.7.1(b)(2). The EPA understands the ADEQ relies on the state of Tennessee for this matter. The state of Tennessee began operation of a PM_{2.5} Near Road monitor for the Memphis MSA in January, 2017.

The quality assurance collocation requirements of 40 CFR 58 Appendix A Section 3.2.3 requires a collocated monitor for each PM_{2.5} Federal Reference Method (FRM) monitor used in the network. The ADEQ provides collocation for the FRM 143 monitors at the Hot Springs (AQS ID: 05-051-0003) site and for the FRM 145 monitors at the Parr (AQS ID 05-119-0007) site.

The EPA suggests the measurements from the PM_{2.5} Tapered Element Oscillating Monitor (TEOM) monitors at Marion (AQS ID 05-035-0005), Doyle Springs Road (AQS ID 05-119-1008), El Dorado

(AQS ID 05-139-0006), and Springdale (AQS ID 05-143-0005) sites be entered into AQS as parameter 88502 'Acceptable PM_{2.5} [Air Quality Index (AQI)] & Speciation Mass' rather than 88501 'PM_{2.5} Raw Data'. The parameter 88501 is intended for short term use, such as data validation during equipment start up, and the subject monitors have been operational for more than a decade. Please address this matter in AQS.

The EPA understands the ADEQ intends to continue to operate the PM_{2.5} Continuous TEOM monitors at the Marion (AQS ID 05-035-0005), Parr (AQS ID 05-119-0007), Doyle Springs Road (AQS ID 05-119-1008), El Dorado (AQS ID 04-139-0006) and Springdale (AQS ID 05-143-0005) sites under non-Federal Equivalent Method/non-FRM Method 701 rather than method '105' indicated in Table 2 of the 2017 Plan. Please update Table 2 in future submittals to accurately identify the method of operation for these monitors.

2017 Annual Monitoring Network Plan for Ambient Air
Request for follow-up within 90 Days

Operation of monitoring network in accordance with 40 CFR Part 58 and Appendices A, B, C, D and E.
See Technical Comments, p. 1.

Annual Monitoring Network Plan for Ambient Air Tips for Developing Future Plans

We appreciate that the ADEQ has followed many or all of these tips in the development of its Plans throughout the years, including this year's Plan. This "Tips" page is intended as a handy reminder for future Plans.

Plan Development and Proposal - Schedule

It may be best to propose a Plan in May for public review, in order to respond to public comments and have a submittal sent to the EPA in time to be received by July 1.

Review of Site Conditions

For future plans, please review whether site conditions may have changed and, if so, consider impacts on the monitoring network. Proper siting and operation of monitors is necessary for determining compliance with air quality standards, and so that the public can be informed of air quality risks.

System Modifications

For future plans, please include

- All proposed system modifications,
- All pending system modifications (modifications previously approved which have yet to be implemented), and
- A summary of all network modifications that have occurred since the previous plan.

Review of Annual Network Plan (ANP) and Air Quality System (AQS)

In developing the ANP, please review information in the ANP in comparison with the AQS database, and coordinate between the two databases as appropriate.

Population Estimates and Metropolitan Statistical Areas (MSAs)

Please use current

- Population estimates from the U.S Census Bureau, and
- MSA definitions from the Office of Management and Budget.

Cross State Metropolitan Statistical Area (MSA) / Core-Based Statistical Area (CBSA) monitoring network responsibilities

The EPA recognizes that State or local agencies must consider MSA/CBSA boundaries and their own political boundaries and geographical characteristics in designing their air monitoring networks. There may be situations where there may be a need to augment or to divide the overall MSA/CBSA monitoring responsibilities and requirements among various agencies to achieve an effective network design. For future plans, for areas in which your agency is relying on another agency to fulfill a monitoring requirement, please provide the following:

- a) a copy of the agreement between the affected agencies
- b) an explanation of the division of responsibilities of the agencies with respect to ambient air monitoring requirements, as related to the ANP.

SO₂ Annual Report

If an SO₂ annual report is required under 40 CFR §51.1205, we encourage providing the SO₂ annual report together with the annual network plan. Thank you to those agencies that are already doing this.

Network changes involving possible discontinuations of State/Local Air Monitoring Station monitors: implications for State Implementation Plans

When considering the possible discontinuation of a monitoring site, please consider maintenance areas. We note that if a maintenance plan needs to be modified or relaxed in the future, it may be much easier to accomplish with up-to-date monitoring data.

Electronic versions of proposals, plans and tables

Please continue to provide an electronic version with future hardcopy submittals, including:

- sending a web link by email at the time the annual monitoring network plan proposal becomes available for public review,
- sending an electronic version of the Plan in addition to the hardcopy, and
- sending an editable electronic version of your ambient air monitoring network table.

Electronic versions may be sent to Ms. Verhalen at verhalen.frances@epa.gov and to Ms. Belk at belk.ellen@epa.gov.