



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OCT 03 2017

Mr. Richard C. Chism
Director, Monitoring Division (MC 165)
Texas Commission on
Environmental Quality
Post Office Box 13087
Austin, TX 78711-3087

Dear Mr. Chism:

Thank you for your correspondence submitting the Texas Commission on Environmental Quality's (TCEQ) 2017 Annual Monitoring Network Plan (2017 Plan) for ambient air. The U.S. Environmental Protection Agency (EPA) has completed its review of the 2017 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 Plan, which we received on July 3, 2017. We applaud the efforts of the TCEQ to manage and maintain the ambient air monitoring network in Texas.

The network review process presents an opportunity for the EPA and the TCEQ to collaborate on air monitoring network design. *See* 40 CFR Part 58, Appendix D, Section 1.1.2. The EPA has conducted its review of the 2017 Plan and proposed network modifications to ensure the air 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 intend to set up a telephone conference to discuss our comments with you.

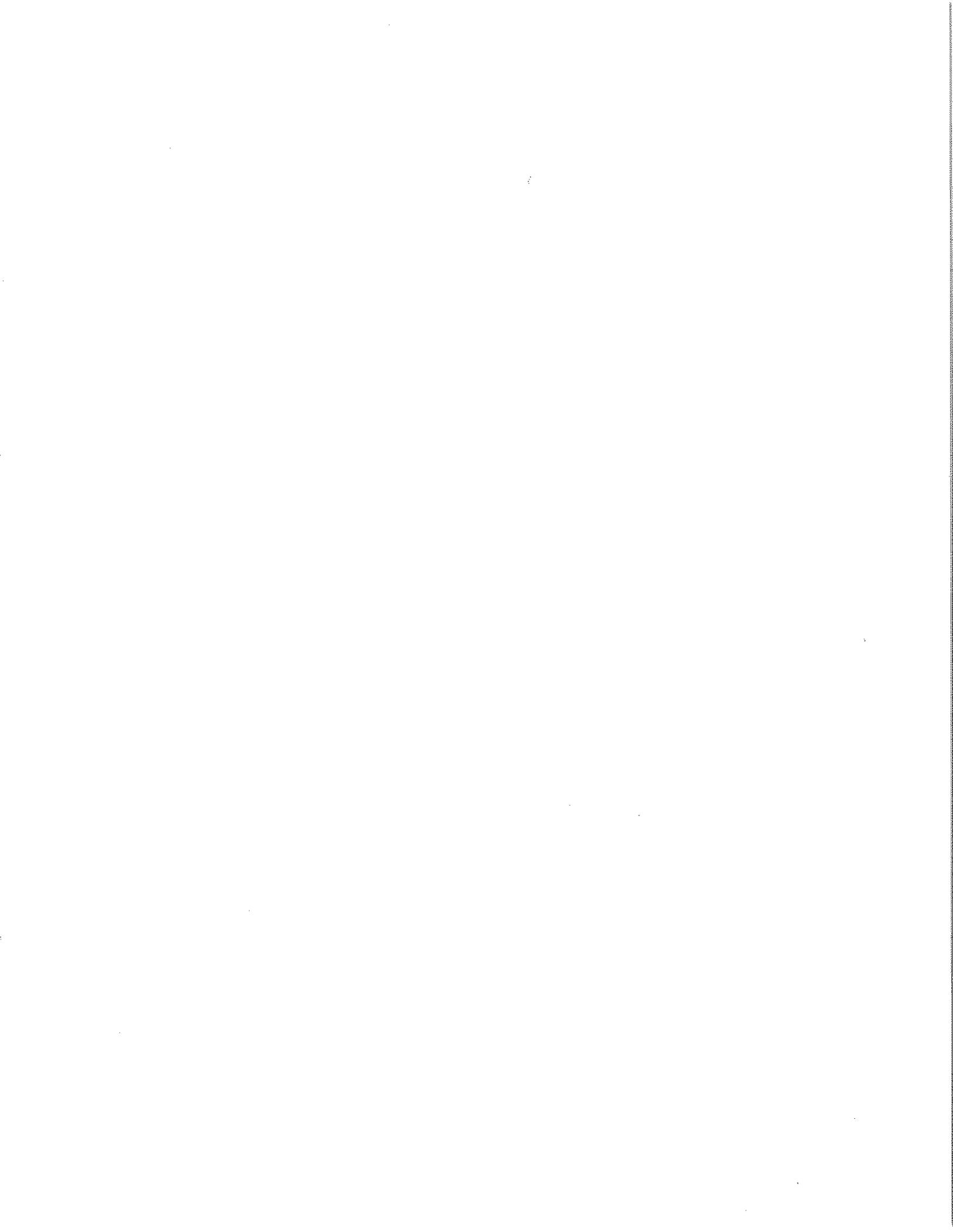
We look forward to our continued partnership with the TCEQ on our common goals to establish and maintain a successful monitoring network for the state of Texas. If you have any questions, please contact me at (214) 665-7242, or your staff may contact Ms. Frances Verhalen, Air Monitoring and Grants Section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

Sincerely yours,

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

Guy R. Donaldson
Associate Director for Air
Multimedia Division

Enclosure



Texas Commission on Environmental Quality
2017 Annual Ambient Air Monitoring Network Plan
Technical Comments

Texas' 2017 Annual Monitoring Network Plan (ANP), dated June 28, 2017, was received on July 3, 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. The comments below reflect the EPA's efforts in collaboration with the Texas Commission on Environmental Quality (TCEQ) to maintain an accurate and efficient ambient air monitoring network.

General Comments

We appreciate the TCEQ'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 TCEQ's operation of the ambient air monitoring network in accordance with federal requirements defined in 40 CFR Part 58 Appendices A, B, C, D, and E (the 2017 Plan, p. 4).

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)

The TCEQ 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.

The EPA acknowledges the relocation of the Lynchburg Ferry site (AQS ID 48-201-1015), including the ozone monitor, approximately 0.22 miles to the southeast, which was approved in a letter dated March 9, 2017.

The EPA approves the decommissioning of the ozone monitor at the Brownsville site (AQS ID 48-061-0006) since it is not required by 40 CFR 58, Appendix D Section 4.1 and since ozone monitoring will continue at the nearby Harlingen Teege site (AQS ID 48-061-1023).

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

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

The EPA approves the decommissioning of the carbon monoxide monitor at the Brownsville site (AQS ID 48-061-0006) since it is not required by 40 CFR 58, Appendix D Section 4.2 and since the current design value is low at 10% of the standard.

The EPA approves relocating the CO monitor from the El Paso Ascarate site (AQS ID 48-141-0055) to the El Paso UTEP (University of Texas at El Paso) site (AQS ID 48-141-0037) for use in evaluating potential ozone exceptional events related to wildfires.

The EPA approves the decommissioning of the carbon monoxide monitor at the Laredo Bridge site (AQS ID 48-479-0017) since it is not required by 40 CFR 58, Appendix D Section 4.2 and since carbon monoxide monitoring will continue at the nearby Laredo Vidaurri site (AQS ID 48-479-0016).

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

The TCEQ is currently meeting and exceeding the network design requirements for ambient air quality monitoring for NO₂. See 40 CFR Part 58, Appendix D Section 4.3.

The EPA acknowledges the relocation of the Lynchburg Ferry site (AQS ID 48-201-1015), including the NO₂ monitor, approximately 0.22 miles to the southeast, which was approved in a letter dated March 9, 2017.

The EPA approves relocating the NO₂ monitor from the Waco Mazanec site (AQS ID 48-309-1037) to the Killeen Skylark Field site (AQS ID 48-027-1047) for better prediction and documentation of ozone formation in the Killeen-Temple Core-Based Statistical Area.

Near-Road Monitoring Sites

The EPA acknowledges that the TCEQ deployed additional PM_{2.5} and CO monitors at the existing near-road sites in Austin (AQS ID 48-453-1068) and San Antonio (AQS ID 48-029-1069) required by 40 CFR Part 58, Appendix D, Sections 4.67 and 4.2.1. The CO monitors were deployed on December 19, 2016, at the Austin site (AQS ID 48-453-1068) and on December 22, 2016, at the San Antonio site (AQS ID 48-029-1069). The PM_{2.5} monitors were deployed on January 1, 2017, at the San Antonio site (AQS ID 48-029-1069) and on January 7, 2017, at the Austin site (AQS ID 48-453-1068).

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

The TCEQ is meeting the network design requirements for ambient air quality monitoring for SO₂. See 40 CFR Part 58, Appendix D Section 4.4.

The EPA approves the decommissioning of the SO₂ monitors at El Paso UTEP (University of Texas at El Paso) (AQS ID 48-141-0037), Houston Monroe (AQS ID 48-201-0062), Houston North Wayside (AQS ID 48-201-0046), Italy (AQS ID 48-139-1044), Seabrook Friendship Park (AQS ID 48-201-1050), and Skyline Park (AQS ID 48-141-0058).

The three monitor siting proposals included in Appendix E of the TCEQ's 2017 ANP were approved in an August 10, 2017, letter from the EPA to the TCEQ.

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

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

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

The TCEQ is currently operating ten Pb monitoring sites: five source-oriented sites and five population exposure sites. Three Pb monitoring sites have collocation, and the network is exceeding federal monitoring requirements.

The TCEQ has requested to discontinue monitoring at two locations: Laredo Vidaurri (AQS ID 48-479-0016) and Brownsville (AQS ID 48-061-0006). Both the Laredo Vidaurri and Brownsville Pb monitors have 38 months of data showing them to be well below the National Ambient Air Quality Standards (NAAQS). The EPA approves the TCEQ's recommendation to discontinue monitoring at these two locations. A date for shutdown at Laredo Vidaurri was provided in the ANP. The EPA requests a date for the projected shutdown of the Brownsville location.

Pb Collocation

The TCEQ is currently exceeding the required number of collocated Pb monitors as detailed in 40 CFR Part 58, Appendix A, Section 3.3.4.3. The EPA appreciates your prompt activation of the collocation monitor at the Terrell Temtex site on April 13, 2017.

Particulate Matter (PM) Monitoring

The TCEQ 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 More (PM₁₀) (40 CFR Part 58, Appendix D Section 4.6)

The EPA approved the discontinuation of the collocated monitor at the Texas City Fire Station site (AQS ID 48-167-0004-81102-2). (See letter from Mr. Mark Hansen to Mr. Chism in response to the 2016 Plan dated October 27, 2016.) Please provide an update to us when the monitor is discontinued, and update AQS accordingly.

The TCEQ currently operates a total of thirty-two manual PM₁₀ monitors at a total of twenty-six sites, and provides quality assurance collocation at six of the sites. When the Texas City Fire Station monitor is discontinued, the TCEQ will be operating thirty-one PM₁₀ monitors at twenty-six sites, with the quality assurance collocation at five sites.

We appreciate the AQS updates on the discontinuation of the PM₁₀ monitors at the Laredo Vidaurri site (AQS ID 48-479-0016-88102-2), the Dona Park site (AQS ID 48-355-0034-81102-2), and the Pasadena HL&P site (AQS ID 48-201-0071-81102-1). We also appreciate the updates on the decommissioning of the PM₁₀ metal speciation monitor at the Morrell site (AQS ID 48-113-0018), and the discontinuation of metals speciation analyses on PM₁₀ filters from the Clinton site (AQS ID 48-201-1035).

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

For future plans, please include identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM_{2.5} NAAQS as described in §58.30.

We appreciate the updates about the discontinuation of the Tapered Element Oscillating Microbalance (TEOM) PM_{2.5} non-NAAQS-comparable Special Purpose Monitors (SPM) at Dallas Hinton (AQS ID 48-113-0069-88502-3), Kingwood (AQS ID 48-201-1042-88502-3), Italy (AQS ID 48-139-1044-88502-3), and Odessa (AQS ID 48-135-0003-88502-3) sites, which the EPA acknowledged in the October 26, 2016, letter in response to the 2016 Plan.

We appreciate the updates about the discontinuation of the TEOM PM_{2.5} non-NAAQS-comparable SPM monitors at Bravo Big Bend (AQS ID 48-043-0101-88502-3), Brownsville (AQS ID 48-061-0006-88502-3), Baytown (AQS ID 48-201-0058-88502-3), Hamshire (AQS ID 48-245-0022-88502-3), and Austin Webberville (AQS ID 48-453-0021-88502-3) sites. We acknowledge these discontinuations.

We appreciate the update about the discontinuation of the R&P 2025 PM_{2.5} NAAQS-comparable State or Local Area Monitoring Station (SLAMS) monitor at Austin Audubon (AQS ID 48-453-0020-88101-5), which the EPA approved in the October 26, 2016, letter in response to the 2016 Plan.

We appreciate the update about the discontinuation of the R&P 2025 PM_{2.5} manual Federal Reference Method (FRM) NAAQS-comparable SLAMS monitor at the Baytown (AQS ID 48-201-0058-88101-1) site. We approve this discontinuation. As a reminder, adjustments to the SLAMS network should not be made prior to receiving approval from the EPA.

The TCEQ plans to discontinue the TEOM PM_{2.5} non-NAAQS-comparable SPM monitors at Selma (AQS ID 48-029-0053-88502-3) and Austin Audubon Society (AQS ID 48-453-0020) sites are acknowledged.

The TCEQ request to discontinue the existing R&P 2025 PM_{2.5} NAAQS-comparable SLAMS monitor at Mission (AQS ID 48-215-0043-88101-1) is approved.

We appreciate the update about the addition of the R&P 2025 PM_{2.5} NAAQS-comparable SLAMS monitor at El Paso Chamizal (AQS ID 48-141-0044-88101-4) site, which the EPA approved in the October 26, 2015, letter in response to the 2015 Plan.

We appreciate the updates about the addition of the Beta Attenuation Monitoring (BAM) 1022 PM_{2.5} NAAQS-comparable SPM monitors operating under Federal Equivalent Method (FEM) 209 at Bravo Big Bend (AQS ID 48-043-0101-88101-1), and Hamshire (AQS ID 48-245-0022-88101-3) sites. We acknowledge these additions.

We appreciate the updates about the addition of the BAM 1022 PM_{2.5} NAAQS-comparable SLAMS monitors operating under FEM 209 at Baytown (AQS ID 48-201-0058-88101-2), and Austin Webberville (AQS ID 48-453-0021-88101-3) sites. We approve these additions. As a reminder, adjustments to the SLAMS network should not be made prior to receiving approval from the EPA.

The TCEQ request to install PM_{2.5} NAAQS-comparable BAM 1022 monitor operating under FEM 209 at the Brownsville (AQS ID 48-061-0006) site is approved. The TCEQ request to discontinue the existing R&P 2025 PM_{2.5} monitor (AQS ID 48-061-0006-88101-1) at this site is approved.

The TCEQ plans to install BAM 1022 PM_{2.5} NAAQS comparable SPM monitors operating under the Federal Equivalent Method (FEM) 209 at the Houston East (AQS ID 48-201-1034), Mission (AQS ID 48-215-0043), Port Arthur (AQS ID 48-245-0021), SETRPC 42 Mauriceville (AQS ID 48-361-1100), and Laredo World Trade Bridge (AQS ID 48-479-0313) sites are acknowledged. The TCEQ plans to discontinue the existing TEOM PM_{2.5} SPM monitors at these sites are also acknowledged: Houston East (AQS ID 48-201-1034-88502-3), Mission (AQS ID 48-215-0043-88502-3), Port Arthur (AQS ID 48-245-0021-88502-3), SETRPC 42 Mauriceville (AQS ID 48-361-1100-88502-3), and Laredo World Trade Bridge (AQS ID 48-479-0313-88502-3). Monitors which are intended to meet minimal requirements of 40 CFR 58 Appendix D should be designated in AQS as SLAMS.

After the installations and discontinuations discussed above are implemented, the TCEQ will operate a total of forty PM_{2.5} NAAQS-comparable (parameter 88101) monitors, and a total of thirty-one PM_{2.5} non-NAAQS-comparable (parameter 88502) monitors at a total of fifty-one sites. The quality assurance collocation requirements of 40 CFR 58 Appendix A Section 3.2.3 do not apply to non-NAAQS monitors. The TCEQ operates the PM_{2.5} NAAQS-comparable monitors using either the FRM 145, FEM 209, or the FEM 170 methods. Quality assurance collocation requirements for monitors the TCEQ operates under FEM 170 are met nationally since the subject monitors are part of the NCore network. At this time, the TCEQ plans to provide quality assurance collocation monitors at four and one site(s) for the monitors which will be operated under FRM 145 and FEM 209, respectively. The EPA looks forward to working with the TCEQ to select the site for the second quality assurance collocation monitor for FEM 209.

Several changes were identified in the proposed PM_{2.5} network after the draft 2017 Plan was released for public input; for example, the draft 2017 Plan proposed the installation of six BAM 1022 NAAQS Comparable Continuous FEM PM_{2.5} monitors vs. ten in the final; the draft 2017 Plan indicates three TEOM PM_{2.5} monitors failed vs. four in the final. The changes in the proposed PM_{2.5} network between the draft and final 2017 Plan appear to be non-consequential and to provide clarification and accuracy to the Plan. In developing future Plans, we request the TCEQ include all available information in the Plan draft for transparency purposes.

The EPA supports the TCEQ's plan to replace existing TEOM PM_{2.5} monitors with BAM 1022 PM_{2.5} monitors. The new BAM 1022 monitors will provide measurements which can be directly compared to the NAAQS thereby meeting the ambient air monitoring objective of supporting compliance with ambient air quality standards and emissions strategy development. The TEOM monitors being replaced did not support this objective. The network changes between the draft and final 2017 Plan did not increase the physical areas in which ambient air is monitored, i.e., no new PM_{2.5} monitor sites added to the network. The changes did, however, make it possible to provide the populations in the McAllen-Edinburg-Mission and Beaumont-Port Arthur Metropolitan Statistical Areas (MSAs) more information about whether the air in these areas currently meet ambient air quality standards. The other area impacted by proposed PM_{2.5} network changes after the draft was released is the Houston-Sugar Land-Baytown MSA. The area already has NAAQS-comparable PM_{2.5} monitors; however, the proposed replacement of the TEOM with the BAM 1022 at the Houston East site will make future comparisons of the area ambient air to the PM_{2.5} NAAQS more robust.

Carbonyls

The EPA approves the sampling frequency change from eight 3-hour carbonyl samples on a 1-in-3 day schedule to three 8-hour carbonyl samples on a 1-in-3 day schedule at the Houston Clinton site (AQS ID 48-201-1035) for July-September and at the Dallas Hinton site (AQS ID 48-113-0069) for June-August in accordance with 40 CFR Part 58, Appendix D, Section 5.

Volatile Organic Compounds (VOC)

The EPA acknowledges that no changes occurred in the TCEQ Automated Gas Chromatograph (Auto-GC) and VOC canister networks in 2017.

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

We appreciate that the TCEQ 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.

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.