



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270 – 2102

October 20, 2021

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

Dear Mr. Chism:

Thank you for your correspondence from the Texas Commission on Environmental Quality (TCEQ) submitting the Texas 2021 Annual Monitoring Network Plan (2021 Plan) for ambient air. The U.S. Environmental Protection Agency (EPA) has completed its review of the 2021 Plan to ensure it meets the requirements of 40 Code of Federal Regulations (CFR) Part 58 and its appendices.

We appreciate your efforts in submitting a timely 2021 Plan; we received the Plan and cover letter on July 1, 2021, with updates August 31, 2021. We applaud the efforts of the TCEQ to manage and maintain the ambient air monitoring network in Texas in compliance with the Clean Air Act.

The network review process presents an opportunity for the EPA and the TCEQ to collaborate on the air monitoring network design. *See* 40 CFR Part 58, Appendix D, Section 1.1.2. The EPA has conducted its review of the 2021 Plan and proposed network modifications to ensure the air quality surveillance system continues to meet applicable requirements.

I am pleased to inform you that your 2021 Plan is approved with comments in accordance with 40 CFR Part 58 and Appendices, including Section 58.10 and Section 58.14. Also, in accordance with 40 CFR §58.14, many of the proposed system modifications in the 2021 Plan are approved. However, the following proposed system modifications to decommission monitors are not approved with the 2021 Plan: discontinuation of monitors for SO₂ and wind speed, wind direction, and outdoor temperature at San Antonio Gardner Road, and discontinuation of monitors for SO₂ and wind speed, wind direction, and outdoor temperature monitor at Fairfield FM 2570 Ward Ranch (AQS ID 48-141-0055). Details of our review are enclosed. For the four system modification requests which were received, reviewed and responses provided within the timeframe of the AMNP review, see the enclosed General Comments. We are available to discuss our review with you if you have any questions.

We acknowledge that, at the time the 2021 Plan was submitted, all of Texas' monitoring sites supporting federal requirements and monitoring objectives were meeting the requirements in 40 CFR Part 58 and Appendices A, B, C, D, and E, with the following exceptions: the Midlothian Old Fort Worth Road site, and the Odessa Gonzales PM_{2.5} monitor. For Midlothian, please continue to keep us informed regarding the progress, with a written update every 90 days until the situation is resolved. For the Odessa Gonzales PM_{2.5} monitor, please notify us when it is relocated.

In addition, we acknowledge receipt of the SO₂ annual report received as an attachment to the 2021 Plan. The annual report is required under 40 CFR 51.1205(b) from the State for seven modeled SO₂

sources whose air quality was characterized by modeling instead of monitoring. I am pleased to inform you that we agree with the State's conclusion that no additional SO₂ modeling is needed for any of these seven sources to determine compliance and that Atascosa, Fort Bend, Goliad, Lamb, Limestone, Robertson, and Wilbarger Counties remain "Attainment/Unclassifiable" for the 2010 one-hour SO₂ primary NAAQS. Details of our review of the State's assessment and recommendations for these modeled sources are enclosed.

We look forward to our continued partnership with the TCEQ on our common goals to establish and maintain a successful monitoring network as well as maintenance of the 2010 one-hour SO₂ primary NAAQS for area designations based on modeling for the state of Texas. If you have any questions, please contact me at (214) 665-7593, or your staff may contact Ms. Frances Verhalen, Air Monitoring and Grants Section Chief, at (214) 665-2172. For questions specific to the SO₂ annual report, please call Michael Feldman, Regional Haze and SO₂ Section Chief, at (214) 665-9793.

Sincerely,

A handwritten signature in black ink, appearing to read "David F. Garcia". The signature is written in a cursive, flowing style.

David F. Garcia, P.E.
Director
Air and Radiation Division

Enclosure: Technical Comments

2021 Annual Monitoring Network Plan Technical Comments

The Texas 2021 Annual Monitoring Network Plan (ANP) was received on July 1, 2021 (2021 Plan), with updates August 13, 2021. In accordance with the requirements of 40 CFR Part 58 and its appendices, EPA has reviewed the 2021 Plan and our comments are provided below. These comments reflect the EPA's efforts in collaboration with the TCEQ to maintain an accurate and efficient ambient air monitoring network.

General Comments

We appreciate the TCEQ's submittal of the 2021 Plan in accordance with 40 CFR §58.10.

Areas with Environmental Justice Concerns

EPA recognizes that the 2021 Plan meets the federal regulatory requirements outlined at 40 CFR 58.10 and Appendices A through E, including consideration of areas with susceptible and vulnerable populations. For future plans, including next year's plan we encourage TCEQ to continue to evaluate areas with environmental justice concerns¹ related to ambient air monitoring.

- Where possible, please add detail to the plan discussing the environmental justice considerations taken into account related to the ambient air quality network.

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, with the following exceptions:

- We acknowledge that the Midlothian Old Fort Worth Road was not meeting the siting criteria in 40 CFR Part 58 Appendix E. We understand that significant progress has been made toward relocating the Midlothian OFW site. Please continue to keep us informed regarding Midlothian OFW, with a written update every 90 days until the situation is resolved.
- We acknowledge that Odessa Gonzales particulate matter of 2.5 micrometers or less in diameter (PM_{2.5}) monitor was not meeting the siting criteria in 40 CFR Part 58 Appendix E; for this site, please notify us when the relocation planned for September 2021 is complete.

Air Quality System (AQS). Thank you for your efforts to ensure that the information in the ANP and the AQS is complete and consistent. Please continue to update the AQS, and to correlate the details of each monitoring location in the ANP with the AQS.

System Modification Requests

We note that during the AMNP review, four requests for system modifications were received, reviewed, and responses provided. For reference, we include the following EPA response letter dates:

- August 13, 2021
- August 16, 2021, and

¹ Executive Order 14008, January 27, 2021. *Federal Register* / vol. 86, No. 19, February 1, 2021, p. 7619. Securing Environmental Justice and Spurring Economic Opportunity. Section 219. *Policy*.

"To secure an equitable economic future, the United States must ensure that environmental and economic justice are key considerations in how we govern. That means . . . turning disadvantaged communities – historically marginalized and overburdened – into healthy, thriving communities . . .".

- August 19, 2021 (2 letters).

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 ozone. See 40 CFR Part 58, Appendix D Section 4.1.

The EPA acknowledges the previous approval by letter dated November 4, 2019, of the deployment of an ozone federal Special Purpose Monitor (SPM) to the El Paso Ojo de Agua site (AQS ID 48-141-1021), activated on March 24, 2021, for improved spatial coverage of ozone concentrations in the El Paso area.

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 acknowledges the previous approval by letter dated November 4, 2019, of the replacement of the San Antonio I-35 site (AQS ID 48-029-1069) regular CO monitor with a high-sensitivity CO monitor for higher resolution CO measurements, which we understand will be deployed during the summer of 2021.

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 previous approval by letter dated April 10, 2020, of the following network system modifications:

- Austin Northwest site (AQS ID 48-453-0014): relocating this site to Austin North Hills Drive approximately 0.1 miles away in October, 2020, with new name (Austin North Hills Drive) but same AQS ID, including monitors for ozone (O₃), nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter less than or equal to 2.5 micrometers (PM_{2.5}) Federal Equivalent Method (FEM) continuous, wind speed, wind direction, and outdoor temperature;
- New Houston Harvard Street site: adding this new site with installation of monitors for O₃ and NO_x, which were activated January 19, 2021 and January 25, 2021, respectively. (This site is within two miles of the Central Business District and about three miles northwest of the previous Texas Avenue Site, located at the Houston Health Department's West End Multi Service Center).

The EPA looks forward to reviewing the upcoming detailed information from the TCEQ regarding the second near-road monitoring station in the San Antonio Metropolitan Statistical Area (MSA) to meet the near-road requirement in CBSAs with 2,500,000 or more persons based on the latest available census figures. The EPA understands that the TCEQ will deploy the site by December 31, 2021. This second near-road site for the San Antonio MSA will measure NO/NO₂/NO_x.

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

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

The EPA acknowledges the previous approval by letter dated April 10, 2020, of the relocation of the Austin Northwest SO₂ (AQS ID 48-453-0014) monitor to Austin North Hills Drive.

The EPA acknowledges the previous approval by letter dated October 22, 2020, of the decommissioning of the Baytown Garth SO₂ monitor (AQS ID 48-201-1017).

The EPA acknowledges the previous approval by letter dated January 1, 2021, of the change in designation of the Houston Croquet SO₂ monitor (AQS ID 48-201-0051) from SPM to SLAMS.

The EPA acknowledges the previous approval by letter dated January 1, 2021, of the changing of network designation from state initiative to federal SPM for the Corsicana Airport SO₂ monitor (AQS ID 48-349-1051).

Regarding the request to decommission the San Antonio Gardner Road monitors for SO₂ and wind speed, wind direction, and outdoor temperature (AQS ID 48-029-108): at this time, this proposal is not approved. This proposal may be resubmitted at a later time. References: 40 CFR Part 58 Appendix T and the DRR, including a valid design value of less than 50% of the NAAQS. At this time, the San Antonio Gardner Road SO₂ monitor does not have the three years of complete data needed for a valid design value.

Regarding the request to decommission the Fairfield Farm to Market (FM) 2570 Ward Ranch monitors for SO₂ and wind speed, wind direction, and outdoor temperature (AQS ID 48-161-1084), at this time, this proposal is not approved. This proposal may be resubmitted at a later time. EPA agrees that this monitor is eligible for decommissioning; however, at this time, the Ward Ranch SO₂ monitor lies in a designated nonattainment area and TCEQ's August 25, 2021, proposed *Redesignation Request and Maintenance Plan State Implementation Plan (SIP) Revision for the Freestone-Anderson and Titus 2010 SO₂ NAAQS Nonattainment Areas* currently includes reliance, in part, on monitoring data from this monitor. While the monitor is required as part of the maintenance plan, it may not be decommissioned.

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 EPA acknowledges the previous approval by letter dated October 22, 2020, of the decommissioning of the TSP Pb monitors at El Paso UTEP (AQS ID 48-141-0037) and Ojo de Agua (AQS ID 48-141-1021).

Pb Collocation

The TCEQ is currently meeting and exceeding the required number of collocated Pb monitors as detailed in 40 CFR Part 58, Appendix A, Section 3.3.4.3.

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 Less (PM₁₀) (40 CFR Part 58, Appendix D Section 4.6)

The TCEQ request to install a Continuous PM₁₀ monitor at the Houston North Wayside site (AQS ID 48-201-0046) is approved. We understand that the anticipated date of operation is Summer 2021. Please keep us informed of monitor deployment.

The TCEQ request to decommission the PM₁₀ sampler at Edinburg East Freddy Gonzales (AQS ID 48-215-1046) is approved. Analysis of 5 years of previous data shows that the annual average concentration is <60% of the National Ambient Air Quality Standard (NAAQS). The area will continue to have PM₁₀ spatial coverage from the monitor at Mission. We understand this monitor was decommissioned on 10/31/2020.

The TCEQ request to decommission the PM₁₀ sampler at Houston Westhollow (AQS ID 48-201-0066) is approved. Analysis of 2017-2019 data shows that the annual average concentration is <85% of the NAAQS. The area will continue to have PM₁₀ spatial coverage from the other four PM₁₀ monitors in the MSA. We understand that this monitor was decommissioned on 12/20/2020.

The TCEQ requests to change the sampling frequency of the Manual PM₁₀ FRM QA Collocated monitors at the Clinton (AQS ID 48-201-1035), Convention Center (AQS ID 48-113-0050), Ojo de Agua (AQS ID 48-141-1021), Socorro Hueco (AQS ID 48-141-0057) from 1-in-6 days to 1-in-12 days, are approved.

We appreciate the update on the deployment of a PM₁₀ FRM sampler to the Dallas County southern sector industrial corridor by 12/31/2020. We understand this date has moved to Summer 2021. We request that you update us when the monitor is deployed.

The EPA future review of the TCEQ request to locate a PM₁₀ monitor in the Portland-Gregory area is contingent on information submittal by the TCEQ about the proposed new location.

Please provide the new AQS number for the new Dallas County southern sector industrial corridor (Site name Dallas Bexar Street) before site startup by email to Ms. Ellen Belk, Environmental Engineer, at belk.ellen@epa.gov.

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

PM_{2.5} Network General

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

PM_{2.5} Network Updates Since Last Year

We appreciate the update on the changes at the Midlothian Old Fort Worth (OFW) site to meet siting criteria and the potential for relocation. Please keep us informed of any changes at this location.

We appreciate the update on the relocation of the Odessa Gonzales PM_{2.5} monitor to meet siting criteria. We understand that TCEQ has a target date of September 2021 for this. Please let us know of any changes at this location.

We appreciate the update about the plans to discontinue the PM_{2.5} NAAQS comparable 2025 monitors and install Continuous BAM 1022 monitors at the Convention Center (AQS ID 48-113-0050) and Houston North Loop (AQS ID 48-201-1052) sites. We approved these modification plans on October 19, 2018. We understand that the Houston North Loop site monitor replacement was completed on 05/12/2021. We request you update us when the monitor replacement is complete.

We appreciate the update about the plans to discontinue the PM_{2.5} non-NAAQS comparable TEOM monitors and install Continuous BAM 1022 monitors at the Houston Aldine (AQS ID 48-201-0024), Corsicana Airport (AQS ID 48-349-1051), and Kaufman (AQS ID 48-257-0005) sites. We approved these modification plans on October 19, 2018. According to AQS, we understand that the Houston Aldine monitor has been replaced with a start date of 05/22/2019. We request you update us when the monitor replacements are complete.

PM_{2.5} Network Proposed Revisions

The TCEQ requests to install a Continuous PM_{2.5} BAM 1022 monitor at the Ojo de Agua site (AQS ID 48-141-1021) and a PM_{2.5} Continuous PM_{2.5} TEOM monitor at the Houston North Wayside site (AQS ID 48-201-0046) are approved. We understand that the Houston North Wayside monitor deployment was completed on 05/04/2021. We request you update us when the monitor replacement at El Paso is complete.

The TCEQ requests to install Continuous PM_{2.5} BAM 1022 monitors at the Austin North Hills Drive (AQS ID 48-453-0014), Conroe (AQS ID 48-339-0078), Socorro Hueco (AQS ID 48-141-0057), and Seabrook (AQS ID 48-201-1050) sites are approved. The TCEQ requests to discontinue the existing Continuous PM_{2.5} TEOM monitors at these sites are approved (AQS IDs 48-453-0014-88502-3, 48-339-0078-88502-3, 48-141-0057-88502-3, 48-201-1050-88502-3). We understand that the monitor replacement was completed at the Austin North Hills site on 10/15/2020. We request you update us when the monitor replacements are complete.

The TCEQ requests to install Continuous PM_{2.5} BAM 1022 monitor at the Edinburg site (AQS ID 48-215-1046) is approved. The TCEQ request to discontinue the existing Manual PM_{2.5} 2025 monitor at this site is approved (AQS ID 48-215-1046-88101-1). We request you update us when the monitor replacement is complete.

The TCEQ request to install a Continuous PM_{2.5} BAM 1022 monitor at the El Paso UTEP site (AQS ID 48-141-0037) was previously approved; specifically the request was to:

“Replace the existing non-regulatory PM_{2.5} tapered element oscillating microbalance monitor with a PM_{2.5} FEM 209 primary monitor and changing the existing PM_{2.5} federal reference method (FRM) 145 monitor to a QC-collocated monitor at the El Paso UTEP air monitoring site.” (see TCEQ’s El Paso UTEP letter requesting a system modification dated August 2, 2021 and EPA’s response dated August 13, 2021).

Please keep us informed of the progress at the El Paso UTEP site.

The TCEQ requests to install a Continuous PM_{2.5} BAM 1022 monitors at the Karnack site (AQS ID 48-203-0002) was approved by letter November 4, 2019. The TCEQ requests to discontinue the existing Manual PM_{2.5} 2025 monitor and the Continuous PM_{2.5} TEOM monitors at this site were also approved in the same letter. We understand that the installation of the BAM 1022 at Karnack was completed on 05/24/2021.

Also, last year, the TCEQ requested to discontinue the PM_{2.5} 2025 and URG Speciation monitors at the Houston Aldine site (AQS ID 48-201-0024) and install the monitors at the Clinton site (AQS ID 48-201-1035) were approved. We understand that the PM_{2.5} speciation monitor at the Houston Aldine site was discontinued on 12/18/2019. We understand that the monitor deployment was completed on 01/01/2021.

The TCEQ request to align the Dona Park PM_{2.5} (AQS ID 48-355-0034) speciation network affiliation from Chemical Speciation Network for Supplemental Speciation Stations to SPM was previously approved. The TCEQ and the EPA agree that this change will help reduce confusion about the speciated data. We understand that this change was completed on 01/01/2021.

The TCEQ request to reduce the sampling frequency to a 1-in-12 day schedule at the Houston Aldine PM_{2.5} QC collocated site (AQS ID 48-201-0024) was approved in response to the 2020 AMNP. Analysis of 2017–2019 data shows that the average annual concentration is <85 % of the NAAQS. We understand that this change was completed on 01/01/2021.

The TCEQ request to replace the Houston Westhollow PM₁₀ monitor (AQS ID 48-201-0066) with a PM_{2.5} continuous monitor was previously approved. We agree with the TCEQ that this will help improve spatial coverage in the west Houston area. We understand that this change was completed on 01/19/2021.

We appreciate the update on the TCEQ Austin Northwest PM_{2.5} monitor and air monitoring station relocation to the Austin North Hills Drive site. We understand that this monitor's deployment was completed on 10/15/2020.

We appreciate the TCEQ's update on the deployment of a PM_{2.5} non-NAAQS comparable monitor to the Dallas County southern sector industrial corridor (Site name Dallas Bexar Street). We understand that TCEQ has a target start date of Summer 2021. We request that you update us when the deployment is complete. Approval for this action was dated 04/10/2020.

The EPA appreciates the TCEQ's efforts to continue to replace aging PM_{2.5} non-NAAQS comparable equipment with new FEM monitoring technology. We understand that the Houston Westhollow, Ascarate Park Southeast, Clinton, Dona Park, and Midlothian OFW sites with PM_{2.5} TEOM monitors are to be replaced by new PM_{2.5} FEM continuous monitors by 12/31/2021. We request that you update us as the monitor replacements occur. Thank you for the update on the Houston Westhollow monitor replacement.

Regarding the proposal to deploy a PM_{2.5} federal equivalent method (FEM) 209 collocated quality control (QC) monitor at the Mission air monitoring site (EPA Air Quality System (AQS) identification number 48-215-0043) to complement the existing primary PM_{2.5} FEM method 209 monitor, this request is approved.

PM_{2.5} Network Proposed QA Collocation

The PM_{2.5} Quality Assurance (QA) Collocation requirements of 40 CFR 58 Appendix A Section 3.2.3 apply to monitors that measure NAAQS comparable data (and do not apply to monitors reporting non-NAAQS comparable data). The TCEQ operates primary PM_{2.5} NAAQS-comparable 2025 and BAM 1022 monitors using the FRM 145 and FEM 209 methods, respectively.

With the EPA letter of October 19, 2018, a total of five sites are approved for QA Collocation for the FEM 209 method (Austin Webberville AQS ID 48-453-0021, Corpus Christi Huisache AQS ID 48-355-0032, Houston Aldine AQS ID 48-201-0024, Fort Worth California Parkway AQS ID 48-439-1053, San Antonio Northwest AQS ID 48-029-0032). The installation of the PM_{2.5} Continuous PM_{2.5} BAM 1022 monitors discussed above will require an additional sixth PM_{2.5} QA Collocation site for the FEM 209 Method. Prior to the installation of the thirty seventh primary BAM 1022 monitor in the network, TCEQ and EPA plan to coordinate on the selection of the sixth PM_{2.5} QA Collocation site for the FEM 209 Method.

During the proposed network changes, the TCEQ is responsible for ensuring that QA Collocation requirements continue to be met for all PM methods.

Carbonyl Monitoring

The EPA acknowledges that no additional changes were made to the TCEQ carbonyl monitoring network.

Volatile Organic Compounds (VOC) Monitoring

The EPA acknowledges that no additional changes were made to the TCEQ VOC monitoring network.

Meteorology Monitoring

The EPA acknowledges the previous approval by letter dated April 10, 2020 of the deployment of wind speed, wind direction and outdoor temperature measurement equipment to the second near-road monitoring station in the San Antonio MSA to meet the near-road requirement in CBSAs with 2,500,000 or more persons based on the latest available census figures by December 31, 2021.

Data Requirements Rule Provisions: 2021 SO₂ Annual Report Technical Comments

As required under 40 CFR 51.1205(b), the SO₂ annual report provides the TCEQ's annual assessment of SO₂ emissions changes for areas designated attainment/unclassifiable for the 2010 SO₂ NAAQS where the designations were based on modeling actual SO₂ emissions. TCEQ submitted its SO₂ annual report for seven sources where the air quality was characterized by modeling instead of monitoring. Seven

Texas counties were designated based on modeled actual SO₂ emissions from these sources: Atascosa, Fort Bend, Goliad, Lamb, Limestone, Robertson, and Wilbarger Counties.

The State provided annual SO₂ actual emissions from 2018 and 2019 and a comparison of these data sets indicates that SO₂ emissions decreased for each county and are lower than the 2012 to 2014 average emissions from the designations modeling. Since the emissions decreased for all of these locations and are lower than the modeled emissions, the original designation modeling provides reasonable assurance that these seven areas continue to meet the 2010 one-hour SO₂ primary NAAQS.

The EPA, therefore, agrees with the State's conclusion that no additional SO₂ modeling is needed for any of these seven sources to determine compliance and that Atascosa, Fort Bend, Goliad, Lamb, Limestone, Robertson, and Wilbarger Counties remain "Attainment/Unclassifiable" for the 2010 one-hour SO₂ primary NAAQS.