



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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DALLAS TX 75202-2733

OCT 26 2015

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) 2015 Annual Monitoring Network Plan. Thank you also for your letter dated April 7, 2015, regarding your air monitoring network. The U.S. Environmental Protection Agency (EPA) has completed its review of the TCEQ's 2015 Annual Monitoring Network Plan to ensure it meets the requirements of 40 Code of Federal Regulations (CFR) Part 58 that are under the oversight of the Regional Administrator. At EPA Region 6, approval authority for annual monitoring network plans is delegated to the Associate Director for Air Programs.

We appreciate your cooperation and work to submit your 2015 network plan. The network assessment process presents an opportunity for the EPA Region 6 and the TCEQ to collaborate on the air monitoring network design. *See* 40 CFR Part 58 Appendix D, Section 1.1.2. I am pleased to inform you that your 2015 ambient air monitoring network plan is approved in accordance with 40 CFR §58.10. Also, as requested in your Five Year Ambient Monitoring Network Assessment, your requests to renew lead waivers for the Lower Colorado River Authority Fayette Power Plant in Fayette County and the United States Department of the Army Fort Hood facility near Killeen are approved. We note an area in your PM network requiring immediate attention: the need for a continuous PM_{2.5} monitor in Texarkana. Details of our review of your air monitoring network plan are provided in the enclosure.

The EPA appreciates the TCEQ's use of the revised Metropolitan Statistical Area definitions and 2014 population estimates from the U.S. Census Bureau. We look forward to our continued collaborative work with the TCEQ on your 2016 ambient air monitoring network plan. If you have any questions, or if you would like to discuss our comments, please contact me at (214) 665-7548, or your staff may contact Ms. Frances Verhalen, Air Quality Analysis Section Chief, at (214) 665-2172.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Mark Hansen".

Mark Hansen
Associate Director for
Air Programs

Enclosure

Texas Commission on Environmental Quality
2015 Annual Ambient Air Monitoring Network Plan Technical Comments

The 2015 Texas Annual Monitoring Network Plan (AMNP), dated June 30, 2015, was received on July 1, 2015. This plan will be referred to as the “2015 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 2015 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 annual air monitoring network review for 2015, and acknowledge the TCEQ's finding that “After consideration of the federal regulations, 2014 U.S. Census Bureau population data, and 2015 design values, the TCEQ will meet or exceed all monitoring requirements with the above mentioned recommendations for next year.” We note that in order to meet federal monitoring requirements, there is a need for a continuous PM_{2.5} monitor in Texarkana. This is discussed further in the section “Particulate Matter (PM) Monitoring” below. We request that the TCEQ continue to include an assessment of its plan's conformance with 40 CFR 58 and its appendices in next year's review, and references to the CFR for network changes.

For future plans, at the time the proposal becomes available for public review, we request that a web link to the annual monitoring network proposal be provided to Ms. Frances Verhalen at verhalen.frances@epa.gov and Ms. Ellen Belk at belk.ellen@epa.gov.

Also, we appreciate that the TCEQ has been providing an electronic version of the AMNP and encourage you to continue to provide an electronic version in addition to the hardcopy. For future plans, we ask that the TCEQ also provide an Excel spreadsheet of its site list, which for the 2015 Plan was provided in *Appendix A: TCEQ SLAMS, PAMS, NATTS, NCore, and SPM Site List*. Electronic copies may be sent to Ms. Frances Verhalen and Ms. Ellen Belk at the email addresses above.

Nitrogen Dioxide (NO₂) Monitoring

Area-wide NO₂ Monitors

The EPA Region 6 acknowledges that the NO₂ area-wide monitors for the Houston-The Woodlands-Sugarland [Clinton, Air Quality System (AQS) #48-201-1035], Dallas-Fort Worth-Arlington (Hinton, AQS Site ID: 48-113-0069), San Antonio-New Braunfels (Northwest, AQS Site ID: 48-029-0032), and Austin-Round Rock (Northwest, AQS Site ID: 48-453-0014) core-based statistical areas, as required by the 40 CFR, Part 58, Appendix D, Section 4.3.3, were approved in the 2013 AMNP response letter from EPA Region 6 dated May 28, 2014.

Regional Administrator Required Monitoring (RA40) Monitors

The EPA Region 6 acknowledges that the NO₂ monitors (i.e. El Paso Ascarate, AQS Site ID:

48-141-0055, Houston Clinton, AQS Site ID: 48-201-1035, Arlington Municipal Airport, AQS Site ID: 48-439-3011 and Beaumont Nederland High School, AQS Site ID: 48-245-1035) for use to help protect susceptible and vulnerable populations under the “RA40” national requirement (40 CFR Part 58, Appendix D, Section 4.3.4) were approved in the 2013 AMNP response letter from EPA Region 6 dated May 28, 2014.

Near-Road Monitoring Sites

In an email dated December 3, 2014, the EPA Region 6 approved the phase II near-road site locations for Dallas-Fort Worth (i.e. the Fort Worth California Parkway North site, AQS Site ID: 48-439-1053) and for Houston (i.e. the Houston North Loop site, AQS Site ID: 48-201-1052). Both sites were deployed in 2015 as required by 40 CFR Part 58, Appendix D, Section 4.3.2. We acknowledge that the Fort Worth California Parkway North and Houston North Loop sites also house, in addition to the required NO₂ monitors, required PM_{2.5} and CO monitors in accordance with 40 CFR Part 58, Appendix D, Sections 4.7 and 4.2.1. Additional PM_{2.5} and CO monitors will be required to be deployed by January 1, 2017, at the existing near-road sites in Austin and San Antonio.

Sulfur Dioxide (SO₂) Monitoring

The TCEQ operates 25 SO₂ monitors, 3 of which are at National Core multipollutant monitoring station sites. No additional monitors are required according to the SO₂ Population Weighted Emission Index. 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.

Lead (Pb) Monitoring

Pb Waivers

The TCEQ has submitted five Pb waivers for source-oriented monitoring since 2010, and all have been granted by EPA Region 6. Three of these waivers are no longer required because source emissions have decreased below the 0.50 tons per year threshold.

Requests to renew Pb waivers for the Lower Colorado River Authority (LCRA) Fayette Power Plant in Fayette County, Texas, and the United States Department of the Army Fort Hood facility near Killeen were included in the TCEQ’s Five Year Network Assessment, submitted to EPA Region 6 on June 30, 2015. Based on the data and modeling discussion provided by TCEQ in Appendix E of the Five Year Network Assessment, these Pb waiver renewal requests are approved. For the LCRA facility, the sources were modeled in 2009; since then there have been no changes to the modeled source parameters and the reported emissions were lower in 2013 than in 2009, which would correspond with lower predicted Pb concentrations than previously modeled. For the Fort Hood facility, the sources were modeled in 2012; since that time there have been no changes to the modeled source parameters and the 2015 permit allowable emission rates were shown to correspond with a maximum predicted modeled concentration of less than half the Pb NAAQS.

Pb Collocation

The TCEQ is currently operating thirteen Pb monitoring sites, three of which have 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. With collocation at the Frisco Eubanks site (AQS Site ID:

48-085-0009), the requirement for collocation at the highest concentration site is currently being met. Because the design value (DV) of this site is expected to drop dramatically in 2016, please ensure the collocation requirements continue to be met.

Ozone (O₃) Monitoring

The EPA Region 6 acknowledges that no changes occurred in the Texas ozone monitoring network in 2015.

Carbon Monoxide (CO) Monitoring

EPA Region 6 acknowledges the following end dates in AQS for the nine CO monitors approved for discontinuation in the 2013 AMNP response letter from the EPA Region 6 dated May 28, 2014. According to AQS, the end date for CO monitoring was June 30, 2014, for the Houston Aldine site (AQS Site ID: 48-201-0024), the Arlington Municipal Airport site (AQS Site ID: 48-439-3011), and the Austin Northwest site (AQS Site ID: 48-453-0014). Also in AQS, the end date for CO monitoring was December 31, 2014, for the El Paso UTEP site (AQS Site ID: 48-141-0037), the El Paso Skyline site (AQS Site ID: 48-141-0058), the Houston Lang site (AQS Site ID: 48-201-0047), the Houston Texas Avenue site (AQS Site ID: 48-201-0075), and the Houston Park Place site (AQS Site ID: 48-201-0416). The Fort Worth Northwest site (AQS Site ID: 48-439-1002) has an end date in AQS of October 31, 2014.

Particulate Matter (PM) Monitoring

Particulate Matter of 10 Microns or More (PM₁₀)

EPA Region 6 notes that in the letter responding to your 2014 Plan (dated January 14, 2015), the EPA approved the proposal to deploy the required State or local air monitoring stations PM₁₀ monitor at the Brownsville (AQS Site ID: 48-061-0006) site in the Brownsville-Harlingen Metropolitan Statistical Area (MSA) and at the Edinburg East Freddy Gonzalez Drive (AQS Site ID: 48-215-1046) site in the McAllen-Edinburg-Mission MSA as meeting the requirements of 40 CFR Part 58, Appendix D, Section 4.6. Please notify EPA Region 6 which PM₁₀ monitoring method is used at these sites and when the monitors were deployed and became operational. Please ensure this information is reflected in the TCEQ's 2016 AMNP.

EPA Region 6 acknowledges that the following PM₁₀ monitors were replaced with PM₁₀ method 062 monitors as noted in AQS: Socorro Hueco (AQS #48-141-0057) primary and collocated QA samplers and Laredo Vidaurri (AQS# 48-479-0016) primary and collocated QA samplers.

For the Tyler MSA, the table in Appendix H indicates that there are 0 required PM₁₀ monitors and 1 existing monitor. The EPA agrees that no PM₁₀ monitors are required in the area but notes a discrepancy with Appendix A, which does not list any PM₁₀ monitors in the Tyler area. Please verify the number of existing PM₁₀ monitors, and update Appendix A or Appendix H as appropriate.

PM₁₀ Collocation

Based on review of the number of collocated PM₁₀ monitors, the EPA clarified that collocation is required for 15% of the entire manual network. Based on the current network of 27 monitors, the TCEQ

is required to have 4 collocated monitors and currently operates 8. The EPA is open to discussions or proposals for reducing the number of collocated monitors.

Particulate Matter of 2.5 Microns or Less (PM_{2.5})

In the El Paso MSA, the table in Appendix I indicates that there are 3 required monitors and 2 existing monitors. Population and design value requirements would support a finding that 2 National Ambient Air Quality Standard PM_{2.5} monitors are needed in the El Paso area. Please verify the number of required and existing PM_{2.5} monitors, and update Appendix I as appropriate.

In the 2014 AMNP, the TCEQ proposed to operate the Brownsville PM_{2.5} monitor on a 1/6 schedule. The EPA did not approve of this schedule due to lack of current data and the TCEQ agreed in the response letter, dated April 7, 2015, to operate this monitor on a 1/3 schedule. Examination of the data indicates that this monitor is running on a 1/3 schedule but in Appendix A the operating schedule is listed as 1/6. Please verify the operating schedule of this monitor. After TCEQ has submitted their PM_{2.5} network evaluation, including the PM_{2.5} tapered element oscillating microbalance (TEOM) network, as part of the 2015 TCEQ Five Year Network Assessment, changes in the sampling schedule of these monitors can be requested after consideration of factors including, but not limited to, the historical PM_{2.5} data quality assessments, the location of current PM_{2.5} DV sites, and their regulatory data needs as provided by 40 CFR §58.12(d)(1)(ii).

PM_{2.5} Collocation

The TCEQ deployed 4 new PM_{2.5} Federal reference method (FRM) monitors which increases the number of monitors to 25: Fort Worth California Parkway North (AQS 484391053), Houston North Loop (AQS 482011052), Edinburg East Freddy Gonzalez Drive (AQS 482151046), and Brownsville (AQS 480610006) using sampling method 145. According to 40 CFR Part 58, Appendix A, Section 3.2.5, 15% of the primary monitors for each sampling method are required to be collocated. The TCEQ currently has three collocated monitors to meet the 15% collocation requirements for method 145. These monitors are at the following sites: the Dallas Hinton site (AQS #48-113-0069), the Houston Clinton site (AQS #48-201-1035) and the Corpus Christi Huisache site (AQS #48-355-0032). However, the addition of the PM_{2.5} FRM sites proposed for deployment in the Brownville-Harlingen and the McAllen-Edinburg-Mission MSAs and the two near-road PM_{2.5} monitors now require the TCEQ to have an additional collocated monitor. The EPA concurs with the TCEQ recommendation of the addition of a PM_{2.5} FRM gravimetric sampler to the El Paso Chamizal (AQS 48-141-0044) site to meet the collocation requirement.

PM_{2.5} Continuous Network

For the Texarkana MSA, according to 40 CFR Part 58, Appendix D, Section 4.7.2, the TCEQ is required to operate continuous PM_{2.5} monitors equal to at least one-half the minimum required sites listed in Table D-5 of 40 CFR Part 58, Appendix D. Since the TCEQ operates a SLAMS PM_{2.5} FRM at the Texarkana site (AQS #48-037-0004), the TCEQ is also required to operate a continuous monitor within the Texarkana MSA. We understand that the TCEQ is unable to deploy a TEOM monitor at the Texarkana site (AQS #48-037-0004) due to logistical issues. Based on a conversation between Frances Verhalen and Patti de la Cruz on October 5, 2015, we understand that the TCEQ plans to relocate the monitoring station in fiscal year 2016 and install a continuous PM_{2.5} monitor by December 31, 2015.

Please notify EPA Region 6 where the TCEQ is planning to locate the PM_{2.5} continuous monitor and which method will be used. Once EPA Region 6 has approved the site location and method in

accordance with 40 CFR Part 58 and its appendices, the TCEQ will need to notify EPA Region 6 when the monitor is deployed and operational. Please ensure that this change is reflected in the TCEQ's 2016 AMNP and also in AQS.

In accordance with 40 CFR Part 58, Appendix D, Section 4.7, during the transition to the new site we request that the TCEQ continue to operate the PM_{2.5} FRM monitor at the Texarkana site (AQS #48-037-0004), which will continue to sample once every third day, for continuity of data.

The TCEQ is also required to operate PM_{2.5} monitors for the Air Quality Index system for any MSA with a population exceeding 350,000. *See* 40 CFR §58.50(b). The TCEQ's continuous PM_{2.5} network currently meets, and in some cases, exceeds this requirement. We suggest the TCEQ reassess their continuous PM_{2.5} network for efficiency and coverage. Further discussion will be needed before changes are made to the TCEQ continuous PM_{2.5} network.

We note that the PM_{2.5} TEOM at the Wichita Falls site (AQS #48-485-0315) was approved for discontinuation in an email to the TCEQ on March 31, 2014, and acknowledge the end date of February 24, 2015, as provided in your letter dated April 7, 2015.

In the Laredo MSA, the table in Appendix I indicates that there are 0 required monitors and 2 existing monitors. The EPA agrees that no continuous PM_{2.5} monitors are required in the area but notes a discrepancy with Appendix A, which lists only 1 continuous PM_{2.5} monitor in the Laredo area. Please verify the number of existing PM_{2.5} monitors, and update Appendix A or Appendix I as appropriate.

Volatile Organic Compounds (VOCs), Carbonyls and Meteorology

The EPA Region 6 acknowledges that no changes occurred in the TCEQ Automated Gas Chromatograph (Auto-GC), canister, carbonyl and meteorology networks in 2015.

Photochemical Assessment Monitoring Stations (PAMS)

In Appendix A there are some Photochemical Air Monitoring Station (PAMS) meteorological parameters that need to be changed from Special purpose monitor (SPM) to PAMS under the column titled "AQS Network & Monitor Type".

Please make the following changes in Appendix A and the AQS for the following four monitors:

1. Relative Humidity needs to be changed from SPM to PAMS at the Dallas Hinton site (AQS Site ID: 48-113-0069)
2. UV Radiation needs to be changed from SPM to PAMS at the El Paso UTEP site (AQS Site ID: 48-141-0037)
3. Solar Radiation needs to be changed from SPM to PAMS at the El Paso Chamizal site (AQS Site ID: 48-141-0044)
4. Relative Humidity needs to be changed from SPM to PAMS at the Houston Aldine site (AQS Site ID: 48-201-0024).

The following changes to the PAMS network were approved by the EPA by letter dated January 29, 2015:

- The decommissioning of the Reactive Oxides of Nitrogen (NO_x) monitor at the SETRPC 40 Sabine Pass site (AQS Site ID: 48-245-0101).
- The re-designation of the carbonyl monitors at the Fort Worth Northwest site (AQS Site ID: 48-439-1002) and the El Paso Ascarate Park SE site (AQS Site ID: 48-141-0055) from PAMS to SPM.
- The re-designation of the radar profiler at the El Paso UTEP site (AQS Site ID: 48-141-0037) from PAMS to SPM.

The EPA previously concurred with the re-designation of the dew point monitors to SPMs in the 2013 AMNP response letter from EPA dated May 28, 2014. We appreciate the TCEQ updating AQS with these SPM designations beginning with a start date of July 1, 2014.