



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 22 2019

Ms. Rhonda Thompson
Chief
Bureau of Air Quality Control
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Dear Ms. Thompson:

Thank you for submitting the state of South Carolina's 2018 annual ambient air monitoring network plan dated July 10, 2018; an addendum to the 2017 annual ambient air monitoring network plan submitted August 16, 2018; and the addendum to the 2018 plan, submitted November 19, 2018. The U.S. Environmental Protection Agency has evaluated these three documents together as the South Carolina "Network Plan." The Network Plan is required by 40 Code of Federal Regulations (CFR) §58.10.

The EPA understands that the South Carolina Department of Health and Environmental Control (DHEC) provided the public a 30-day review period for each of the three submittals that are part of the Network Plan. The EPA staff submitted one public comment to the July 2018 submittal which was addressed in the November 2018 addendum. It is the EPA's understanding that no other comments on the Network Plan were received.

The Network Plan requests the relocation of two ozone (O₃) monitors, one in the Greenville area and one in the Charleston area; the discontinuation of one additional O₃ monitor in the Greenville area; and changes to the PM_{2.5} network including relocation of the state's collocated monitor and background PM_{2.5} monitor. The EPA supports the redesign of the O₃ networks in the Greenville and Charleston area as well as the reconfiguration of the South Carolina PM_{2.5} monitoring network. The EPA approves the 2018 Network Plan as proposed in the July 2018 submittal and supported with additional information in the August 2018 and November 2018 addendums, with the exception of the PM₁₀ monitoring network in the Augusta-Richmond County, GA-SC area. After a recent PM₁₀ NAAQS violation at the Augusta, GA monitoring site, the EPA Region 4 has been consulting with the EPA Office of Air Quality Planning and Standards staff on whether additional monitoring is required. Once we have finished those discussions, the EPA will contact both Georgia and South Carolina to discuss the next steps.

Details regarding the EPA's review of the Network Plan are provided in the enclosed comments. Thank you for working with us to monitor air pollution and promote healthy air quality in South Carolina. If you have any questions or concerns, please contact Gregg Worley at (404) 562-9141 or Ryan Brown at (404) 562-9147.

Sincerely,



Carol L. Kemker
Acting Director
Air, Pesticides and Toxics Management Division

Enclosure

cc: Mr. Robert Brown
Division Director, Air Planning Development
and Outreach, SC DHEC

Ms. Connie Turner, Director
Division of Air Quality Analysis, SC DHEC

Ms. Renee Madden, Manager
Air Data Analysis and Support Section, SC DHEC

The Honorable William Harris
Chief of the Catawba Indian Nation

Mr. Darin Steen
Director, Environmental Services, Catawba Indian Nation

CY 2018 State of South Carolina Ambient Air Monitoring Network Plan The U.S. EPA Comments and Recommendations

This document contains the U.S. Environmental Protection Agency comments and recommendations regarding the state of South Carolina’s 2018 ambient air monitoring network plan (Network Plan). Ambient air monitoring rules, which include regulatory requirements that address network plans, data certification, and minimum monitoring requirements, among other requirements, are found in 40 CFR Part 58. Minimum monitoring requirements for criteria pollutants are listed in 40 CFR Part 58, Appendix D. Minimum monitoring requirements are listed for ozone (O₃), particulate matter less than 2.5 microns (PM_{2.5}), particulate matter less than 10 microns (PM₁₀), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), and lead (Pb).

The minimum monitoring requirements are based on core based statistical area (CBSA) boundaries as defined by the U.S. Office of Management and Budget (OMB), July 1, 2017, population estimates from the U.S. Census Bureau, and historical ambient air monitoring data. Minimum monitoring requirements for O₃, PM_{2.5}, and PM₁₀ only apply to metropolitan statistical areas (MSAs) which are a subset of CBSAs. OMB currently defines 10 MSAs in the state of South Carolina. These MSAs and the respective July 1, 2017, population estimates from the U.S. Census Bureau are shown in Table 1.

Table 1: Metropolitan Statistical Areas and Populations

MSA Name	Population
Charlotte-Gastonia-Concord NC-SC	2,525,305
Greenville-Anderson-Mauldin, SC	895,923
Columbia, SC	825,033
Charleston-North Charleston-Summerville, SC	775,831
Augusta-Richmond County, GA-SC	600,151
Myrtle Beach-Conway-North Myrtle Beach, SC-NC	464,165
Spartanburg, SC	334,391
Hilton Head Island-Bluffton-Beaufort, SC	215,302
Florence, SC	205,831
Sumter, SC	106,847

Proposed Monitoring Network Changes

The South Carolina Department of Health and Environmental Control (SC DHEC) proposed numerous changes to its monitoring network in the Network Plan. Table 2 summarizes the requested discontinuations and relocations of monitors and Table 3 summarizes the requested monitor startups. Specifics of each change and rationale are also contained in the following pollutant sections.

Table 2: Monitors Proposed for Relocation or Discontinuation

AQS ID	Site Name	CBSA	Pollutant	Type	Comments
45-007-0005	Big Creek	Greenville-Anderson-Mauldin, SC	O ₃	SLAMS	EPA supports this and will review and make a final decision for the next network plan. Proposed to shut down after 2019 O ₃ season.
45-077-0002	Clemson	Greenville-Anderson-Mauldin, SC	O ₃	SLAMS	Approved. Monitoring relocation to Garrison Arena (AQS ID 45-007-0006)

45-077-0003	Wolf Creek	Greenville-Anderson-Mauldin, SC	O ₃	SLAMS	Approved to discontinue as part of the re-designed Greenville area O ₃ monitoring network. Has consistently measured lower concentrations than other monitors in the MSA
45-019-0048	FAA	Charleston-North Charleston-Summerville, SC	PM _{2.5}	Collocated SPM	Acknowledged. The primary Sampler will continue to operate at FAA. The collocated sampler was moved to TK Gregg (AQS ID 45-083-0011) site in the Spartanburg MSA. Collocated sampler will be moved back to the Charleston area once a new PM _{2.5} site is established.
45-015-0002	Bushy Park	Charleston-North Charleston-Summerville, SC	O ₃	SLAMS	Approved to relocate. Does not meet siting criteria. Moncks Corner site (AQS ID 45-015-1002) established as a replacement in Charleston CBSA.
45-029-0002	Ashton	Walterboro, SC	PM _{2.5}	SLAMS	Approved. Monitor changed from SLAMS to SPM. This monitor is not in a minimally required MSA for PM _{2.5} . Cape Romain (AQS ID 45-019-0046) will be designated as the required background site.

Table 3: Monitors Proposed for Startup

AQS ID	Site Name	CBSA	Pollutant	Type	Comments
45-007-0006	Garrison Arena	Greenville-Anderson-Mauldin, SC	O ₃	SLAMS	Approved. Relocation of Clemson O ₃ monitor. Approximately one mile southeast of the Clemson site.
45-015-1002	Moncks Corner National Guard	Charleston-North Charleston-Summerville, SC	O ₃	SLAMS	Approved. O ₃ monitor for Charleston CBSA instead of Bushy Park. Rationale provided to show that this is in an area of expected maximum concentration.
45-019-0046	Cape Romain	Charleston-North Charleston-Summerville, SC	PM _{2.5}	SLAMS	PM _{2.5} monitor will be a SLAMS instead of SPM and designated as the PM _{2.5} regional background site for SC. This monitor must operate on a 1-in-3-day sampling frequency per 40 CFR 50.12(d)(2).
45-091-0008	York	Charlotte-Gastonia-Concord NC-SC	SO ₂	SPM	Acknowledged. SO ₂ monitor added to existing site.
45-083-0011	T. K. Gregg	Spartanburg, SC	PM _{2.5}	SLAMS collocated	Approved. Addition of collocated FRM sampler to existing site.

Waivers of Monitor Siting Criteria 40 CFR Part 58, Appendix E

Under 40 CFR Part 58, Appendix E, Section 10, waivers of siting criteria for existing sites can be granted if either of the following criteria are met:

10.1.1 The site can be demonstrated to be as representative of the monitoring area as it would be if the siting criteria were being met.

10.1.2 The monitor or probe cannot reasonably be located so as to meet the siting criteria because of physical constraints (e.g., inability to locate the required type of site the necessary distance from roadways or obstructions).

The Network Plan requests a waiver of monitoring siting requirements for the Congaree Bluff monitoring site (AQS ID 45-079-0021). The objective of the Congaree Bluff site is to measure O₃ and SO₂ within the Congaree National Park boundaries. Within the national park boundaries this monitor cannot be reasonably located so as to meet the siting criteria because of physical constraints. The EPA staff visited the Congaree Bluff site on January 25, 2016 and agree that this is the best monitoring location within the park boundaries. The EPA previously waived the requirements of 40 CFR Part 58, Appendix E, Section 4 (a) and Table E-4 to 40 CFR Part 58, Appendix E, Section 11 in regard to trees identified by SC DHEC as obstructing airflow. In its most recent Network Plan, the SC DHEC is requesting a further waiver for 40 CFR Part 58, Appendix E, Section 5 “Spacing from Trees” and Table E-4 to 40 CFR Part 58, Appendix E, Section 11 for one branch which is within 10 meters of the monitoring probes.

The Network Plan describes one branch that is 17.7 meters above the ground (about 13.5 meters above the probe) and 7.4 meters horizontally from the closest monitoring probe. The EPA believes this branch should have minimal impact and the site would still meet the objective of monitoring O₃ and SO₂ within the park boundaries. The EPA encourages the SC DHEC to meet siting criteria requirements as much as possible at this site but understands the National Park Service’s and SC DHEC’s hesitation to remove trees in an old growth forest. Thus, the EPA waives the spacing from trees requirement for the one branch identified by SC DHEC in the Network Plan. This site must still meet all other siting requirements found in Appendix E to 40 CFR Part 58. This waiver, as with all other waivers of regulatory requirements granted by the EPA, should be re-evaluated in the 2020 South Carolina network assessment.

Operating Schedules 40 CFR § 58.12

The monitoring network proposed in the Network Plan meets the required operating schedules for all continuous analyzers and all manual Pb, PM₁₀, PM_{2.5}, and PM_{2.5} Speciation Trends Network (STN) monitors. The SC DHEC did not propose any changes to its operating schedules in the Network Plan.

Air Quality Index (AQI) Reporting
40 CFR §58.50

AQI reporting is required in MSAs with populations over 350,000. There are four MSAs in the state of South Carolina required to report an AQI: Greenville-Anderson-Mauldin, Columbia, Charleston-North Charleston, and Myrtle Beach-Conway-North Myrtle Beach. The Network Plan indicates that the daily AQI for all of these areas is available on the EPA’s AirNow web site, as well as areas in and around Aiken, SC (in the Augusta-Richmond County, GA-SC CBSA); Florence-Darlington, SC; and York-Chester-Lancaster, SC (in the Charlotte-Concord-Gastonia, NC-SC CBSA). The SC DHEC monitoring network satisfies the minimum AQI reporting requirements in 40 CFR Part 58.

National Core (NCore) Monitoring Network
40 CFR Part 58, Appendix D, 3

A requirement that each state operate at least one NCore site is found in 40 CFR Part 58, Appendix D, Section 3. The state’s approved NCore site is in Columbia at the Parklane site (AQS ID 45-079-0007) and SC DHEC has not proposed any changes for the site in its Network Plan.

O₃ Monitoring Requirements
40 CFR Part 58, Appendix D, Table D-2

The Network Plan proposes to discontinue four O₃ monitors (one after the 2019 O₃ monitoring season) and to relocate O₃ monitors to two new O₃ monitoring sites. These O₃ shutdown and relocations would be in the Greenville-Anderson-Mauldin, SC MSA and the Charleston-North Charleston-Summerville, SC MSA.

In the Greenville area, the Network Plan proposes to:

- Shutdown the Wolf Creek O₃ monitor (AQS ID 45-077-0003) after the 2018 O₃ season;
- Shutdown the Big Creek O₃ monitor (AQS ID 45-007-0005) after the 2019 O₃ season; and
- Relocate the Clemson O₃ monitor (AQS ID 45-077-0002) approximately a mile away to the new Garrison Arena site (AQS ID 45-007-0006).

Relocate the Bushy Park O₃ monitor (AQS ID: 45-015-0002) to the new Moncks Corner National Guard site (AQS ID: 45-015-1002) he Greenville-Anderson-Mauldin, SC MSA is minimally required to have two O₃ monitors based on population and recent design values. Historically the Clemson and the Hillcrest (AQS ID: 45-045-0016) O₃ monitors have measured the highest concentrations in the MSA. The preliminary 2018 O₃ design value is 62 ppb at both Hillcrest and Clemson. The Wolf Creek monitor has typically measured the lowest O₃ concentrations in the MSA. Thus, the EPA supports the discontinuation of the Wolf Creek O₃ monitor. The SC DHEC states in the Network Plan that a final decision on the discontinuation of O₃ monitoring at Big Creek will be made in the next network plan. The EPA will evaluate the Big Creek discontinuation in its response to the next network plan. This Network Plan proposes to replace the Clemson site with a new site at Garrison Arena. The Garrison Arena site is approximately one mile from the Clemson site and the SC DHEC presented information that Garrison Arena is representative of the same airshed as the Clemson site for O₃ measurements. Thus, the EPA approves the proposed changes to O₃ monitoring in the Greenville and Anderson area: discontinuation of Wolf Creek and relocation of O₃ monitoring from Clemson to Garrison Arena.

In the Charleston area, the Network Plan proposes to replace the Bushy Park O₃ monitor (AQS ID 45-015-0002) with a new O₃ site at Moncks Corner National Guard (AQS ID: 45-015-1002). The SC DHEC submitted meteorological information and analysis that the Moncks Corner National Guard site might be in a location of maximum expected O₃ concentration and/or higher expected concentration than O₃ concentrations measured at Bushy Park. Additionally, Bushy Park has significant siting criteria issues which the SC DHEC has not been able to address. Thus, the EPA approves relocating the O₃ monitor from Bushy Park to Moncks Corner National Guard.

It is the EPA’s understanding that the Moncks Corner National Guard and Garrison Arena sites were not established in time to start up for the 2019 O₃ season and that SC DHEC is continuing to operate the Clemson and Bushy Park monitoring sites for the 2019 O₃ season. SC DHEC intends to operate O₃ monitors at Moncks Corner National Guard and Garrison Arena for the 2020 O₃ season and the O₃ monitors at Clemson and Bushy Park will be discontinued after the 2019 O₃ season.

The SC DHEC O₃ monitoring network outlined in the Network Plan meets the minimum requirements found in 40 CFR Part 58, Appendix D, Table D-2 for all MSAs in South Carolina.

SO₂ Monitoring Requirements 40 CFR Part 58, Appendix D, 4.4

Ambient air monitoring network design criteria for SO₂ are found in Section 4.4 of 40 CFR Part 58, Appendix D. This section requires that “The population weighted emissions index (PWEI) shall be calculated by states for each core-based statistical area (CBSA)...” As a result, the SO₂ monitoring site(s) required in each CBSA will satisfy minimum monitoring requirements if the monitor(s) is sited within the boundaries of the parent CBSA and is of the following site types: population exposure, maximum concentration, source-oriented, general background, or regional transport. An SO₂ monitor at an NCore station may satisfy minimum monitoring requirements if that monitor is located within a CBSA with minimally required monitors consistent with Appendix D, Section 4.4.

Based upon PWEIs calculated using the latest population estimates and 2014 emission inventory data, the minimum numbers of monitors required for the CBSAs in South Carolina are summarized in Table 4.

Table 4: SO₂ Monitoring System Status – PWEI Requirements

CBSA Name	SLAMS Required	SLAMS Present	SO₂ SLAMS site
Charleston-North Charleston-Summerville, SC	1	1	Jenkins Ave Fire Station (AQS ID 45-019-0003)
Charlotte-Gastonia-Concord, NC-SC	1	1	Garinger High School (AQS ID 37-119-0041)
Columbia, SC	1	1	Parklane (AQS ID 45-079-0007)
Greenville-Anderson-Mauldin, SC	1	1	Greenville ESC (AQS ID 45-045-0015)

Based upon the information summarized in Table 4, the SO₂ monitoring network outlined in the Network Plan meets the SO₂ PWEI requirements specified in 40 CFR Part 58, Appendix D, Section 4.4. The DHEC operates SO₂ monitors in the Charleston-North Charleston-Summerville, SC; Columbia, SC; and Greenville-Anderson-Mauldin, SC CBSAs to meet the PWEI requirements. The SC DHEC has a Memorandum of Agreement with Mecklenburg County Air Quality (MCAQ) to share the monitoring requirements for the Charlotte-Gastonia-Concord NC-SC CBSA. The MCAQ operates an SO₂ monitor

at its Garinger High School site (AQS ID 37-119-0041) to meet the PWEI requirement in the Charlotte area.

The EPA finalized the SO₂ Data Requirements Rule (DRR) (see 80 *Federal Register*, No. 162) on August 21, 2015. This rule requires characterization of the air quality near sources with SO₂ emissions greater than 2,000 tons per year by conducting ambient air monitoring or modeling. On January 15, 2016, the SC DHEC submitted to the EPA a list of eight sources in the state around which SO₂ air quality must be characterized. These eight sources were characterized using modeling and/or took federally enforceable emissions limits. The SC DHEC is not operating any SO₂ monitoring sites to meet the DRR requirements.

The Network Plan proposes another SO₂ monitor at the existing York site (AQS ID 45-091-0008), which is in the Charlotte-Gastonia-Concord, NC-SC CBSA. The SC DHEC will operate this monitor as an SPM. SPMs do not require the EPA approval. The EPA acknowledges the startup of this monitor as part of the SO₂ network operated by the DHEC. The SO₂ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

NO₂ Monitoring Requirements 40 CFR Part 58, Appendix D, 4.3

Ambient air monitoring network design criteria for NO₂ are found in 40 CFR Part 58, Appendix D, Section 4.3. There are three types of required NO₂ monitoring: near-road, area-wide, and Regional Administrator. These types of NO₂ monitoring are described in Sections 4.3.2, 4.3.3 and 4.3.4, respectively.

Ambient air monitoring design criteria for near-road NO₂ monitoring sites are found in 40 CFR Part 58, Appendix D, Section 4.3.2. The requirement for near-road monitoring in the Charlotte-Gastonia-Concord NC-SC CBSA is met by the Remount site (AQS ID 37-119-0045) operated by the MCAQ in Charlotte, North Carolina. No other CBSA in South Carolina is required to have near-road NO₂ monitoring, at this time.

Ambient air monitoring network design criteria for area-wide NO₂ sites are found in Section 4.3.3 of Appendix D to 40 CFR Part 58. The Garinger High School site (AQS ID 37-119-0041) operated by the MCAQ fulfills the area-wide NO₂ monitoring requirement for the Charlotte-Gastonia-Concord NC-SC CBSA. No other CBSA in South Carolina is required to have area-wide NO₂ monitoring.

Ambient air monitoring network design criteria for Regional Administrator required NO₂ monitoring, often referred to as RA-40 monitoring, are found in 40 CFR Part 58, Appendix D, section 4.3.4. Under these provisions, Regional Administrators must require a minimum of 40 additional NO₂ monitoring stations nationwide, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. Previously, the EPA selected the Greenville ESC site (AQS ID 450-045-0015) as a location for an RA-40 NO₂ monitoring site. The full list of NO₂ monitors identified by EPA's Regional Administrators can be found on EPA's website at <http://www.epa.gov/ttnamti1/svpop.html>. The NO₂ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

Pb Monitoring Requirements
40 CFR Part 58, Appendix D, 4.5

40 CFR Part 58, Appendix D, Section 4.5 requires that “At a minimum, there must be one source-oriented SLAMS [State and Local Air Monitoring Station] site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year...”

Although South Carolina has no sources that exceed the thresholds for Pb monitoring, the SC DHEC and Johnson Control Battery Group conduct source-oriented ambient Pb monitoring at three sites around the Florence Recycling Center in Florence, South Carolina. The company and the SC DHEC conduct this monitoring under terms of a settlement agreement reached with several petitioners who commented on the construction permit for the facility. Locations for the monitoring sites were selected based upon an agreement between the company and the stakeholders.

The Pb monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

PM₁₀ Monitoring Requirements
40 CFR Part 58, Appendix A, 3.3.1
40 CFR Part 58, Appendix D, Table D-4

The EPA has determined that the PM₁₀ monitoring network outlined in the Network Plan meets or exceeds the minimum requirements found in 40 CFR Part 58, Appendix D, Table D-4 for all MSAs except the Augusta-Richmond County, GA-SC MSA. EPA Region 4 is consulting with the EPA Office of Air Quality Planning and Standards (OAQPS) staff on whether additional monitoring is required in the Augusta area. All manual PM₁₀ collocation requirements for the state are being met.

At the Augusta, GA PM₁₀ site (AQS ID 13-245-0091) in the Augusta-Richmond County, GA-SC MSA, the monitor measured one exceedance of the PM₁₀ NAAQS on January 25, 2017. According to information provided by the Georgia Environmental Protection Division, (GA EPD) this exceedance was due to smoke from prescribed burning at Fort Gordon. Because the manual PM₁₀ sampler operated on a 1-in-6-day sampling schedule and the PM₁₀ NAAQS design value is based on estimated exceedances, this one exceedance resulted in a violating design value at the monitor for 2015-2017. On October 1, 2017, GA EPD replaced the manual PM₁₀ sampler at the site with a continuous PM₁₀ sampler. So, in the future, the design value at the site will not be as influenced by a single exceedance since the monitor will collect data at a much higher time resolution.

The PM₁₀ minimum monitoring requirements found in 40 CFR Part 58 Appendix D, Table D-4 indicate that minimum number of PM₁₀ monitors would increase for the Augusta MSA if the area increased from low concentration (areas where ambient PM₁₀ data show ambient concentrations less than 80 percent of the PM₁₀ NAAQS) to medium concentration (exceeding 80 percent of the PM₁₀ NAAQS) or high concentration (exceeding the PM₁₀ NAAQS by 20 percent or more). Since the violating design value at this site is due to an exceedance on a single day during the three-year period and the area does not have a history of PM₁₀ NAAQS violations, the EPA Region 4 is in consultation with OAQPS on whether additional monitoring is required. Once a determination has been made, the EPA will contact both Georgia and South Carolina to discuss the next steps.

PM_{2.5} Monitoring Requirements
40 CFR Part 58, Appendix A, 3.2.5
40 CFR Part 58, Appendix D, Table D-5

The EPA has determined that the PM_{2.5} monitoring network outlined in the Network Plan meets or exceeds the minimum requirements found in 40 CFR Part 58, Appendix D, Table D-5 for all MSAs.

Also, all PM_{2.5} collocation requirements are met. The collocated sampler that was at the FAA site (AQS ID 45-019-0048), in the Charleston-North Charleston-Summerville, SC MSA, is now operating at the T.K. Gregg site (AQS ID: 45-083-0011), in the Spartanburg, SC MSA, to meet FRM collocation requirements.

The SC DHEC plans to move this collocated sampler back to the Charleston-North Charleston-Summerville, SC MSA once a new PM_{2.5} site is established. It is the EPA’s understanding that the SC DHEC has selected a location for a new PM_{2.5} site in the North Charleston area.

PM_{2.5} Continuous Monitoring Requirements
40 CFR Part 58, Appendix D, 4.7.2

Regulatory provisions for continuous PM_{2.5} monitoring require that “The State, or where appropriate, local agencies must operate continuous PM_{2.5} analyzers equal to at least one-half (round up) of the minimum required sites listed in Table D–5 of this Appendix. At least one required continuous analyzer in each MSA must be collocated with one of the required FRM/FEM/ARM [Federal Reference Method/Federal Equivalent Method/Approved Regional Method] monitors, unless at least one of the required FRM/FEM/ARM monitors is itself a continuous FEM or ARM monitor in which case no collocation requirement applies.”

The five MSAs listed in Table 5, below, have minimum continuous monitoring requirements. These requirements are met in all MSAs in the state. The SC DHEC also operates continuous PM_{2.5} monitors in the Florence, SC MSA and Spartanburg, SC MSA. Additionally, the continuous PM_{2.5} collocation requirements are met in all MSAs.

Table 5: Continuous PM_{2.5} Monitoring Requirements

SC MSA	Number of Minimally Required Continuous PM _{2.5} Monitors	Number of Operated Continuous PM _{2.5} Monitors
Charlotte-Gastonia-Concord NC-SC	1	4 (operated by MCAQ)
Greenville-Anderson-Mauldin, SC	1	1
Columbia, SC	1	2
Charleston-North Charleston-Summerville, SC	1	2
Augusta-Richmond County, GA-SC	1	1

PM_{2.5} Background and Transport Sites
40 CFR Part 58, Appendix D, 4.7.3

Forty (40) CFR Part 58, Appendix D, Section 4.7.3 requires that “Each State shall install and operate at least one PM_{2.5} site to monitor for regional background levels and at least one PM_{2.5} site to monitor for regional transport.” The Network Plan identifies Chesterfield (AQS ID 45-025-0001) in Chesterfield County as a regional transport site.

The Network Plan identifies the existing Cape Romain (AQS ID 45-019-0046) continuous PM_{2.5} monitor as the regional background monitor. The previously selected PM_{2.5} general background monitor at the Ashton site (AQS ID: 45-029-0002) was recently identified as not meeting regulatory siting criteria and the SC DHEC does not expect to be able to trim or remove the nearby trees that obstruct airflow. The SC DHEC analyzed hourly PM_{2.5} data around the entire state and determined that the Cape Romain monitor was the most representative of regional background. The Cape Romain monitor typically measures less of an increase in PM_{2.5} during the afternoon and evening hours than monitors located in urban settings. This is similar to the daily trend measured at the PM_{2.5} monitors identified to represent PM_{2.5} general background in both Florida and North Carolina. The EPA supports the SC DHEC's analysis and agrees that of the existing monitors, the Cape Romain PM_{2.5} monitor is likely the most representative of a rural or general background site. This monitor must minimally operate on a 1-in-3-day sampling frequency per 40 CFR 58.12(d)(2). It is the EPA's understanding that the SC DHEC is working with the U.S. Fish and Wildlife Service, which owns the Cape Romain site, to resolve recently identified regulatory siting criteria issues for the Cape Romain site.

The SC DHEC has satisfied the requirements of 40 CFR Part 58 for PM_{2.5} regional background and transport sites.

PM_{2.5} Chemical Speciation Network (CSN) 40 CFR Part 58, Appendix D, 4.7.4

The EPA conducted an assessment of the CSN in an effort to optimize and create a network that is sustainable going forward. As a result of this assessment, the EPA defunded a number of monitoring sites, eliminated the CSN PM_{2.5} mass measurement, reduced the frequency of carbon blanks, reduced sample frequency at monitoring sites, and reduced the number of icepacks in shipments during the cooler months of the year.

The EPA defunded two CSN monitors at sites in South Carolina: Chesterfield (AQS ID 45-025-0001) and Greenville ESC (AQS ID 45-045-0015). It is the EPA's understanding that the Chesterfield speciation monitor continued to operate until December 2018. The SC DHEC decided to, in consultation with the EPA, to move the Chesterfield speciation monitor to the Parklane NCore site (AQS ID 45-079-0007). Parklane also has a CSN speciation monitor, but the SC DHEC reports that this monitor has been failing. The SC DHEC decided to only operate PM_{2.5} speciation at Parklane, since Parklane was identified in the EPA's assessment as being of higher value than speciation measurements at Chesterfield and only one monitor is still in good condition. The SC DHEC should propose this modification in its next network plan, which will be made available for public comment.

Photochemical Assessment Monitoring Station (PAMS) 40 CFR Part 58, Appendix D, 5.0

With the promulgation of a revised O₃ NAAQS on October 1, 2015, the EPA also finalized changes to the PAMS program. NCore sites in CBSAs with greater than 1,000,000 population will be required to implement PAMS monitoring. Parklane (AQS ID 45-079-0007) is not required to operate PAMS monitoring since the Columbia CBSA's population is less than one million. The PAMS requirement is met by the state.

Monitoring Siting Criteria and Site Assessments
40 CFR Part 58, Appendix A, B, C, D, and E

In reference to the Network Plan, 40 CFR §58.10(a)(1) states “[t]he plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement.” The Network Plan includes assessment information for all monitoring sites. The EPA appreciates the inclusion of this information and the work that the SC DHEC has done to evaluate siting criteria at all of its monitoring sites. The EPA understands that the SC DHEC is still working to resolve siting criteria issues identified by their own assessments and in recent EPA audits and appreciates the SC DHEC’s continued progress in resolving these issues.