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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Received

OCT 28 2019

Bureau of Air Quality

OCT 25 2019

Ms. Rhonda Thompson *RBT*
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 2019 annual ambient air monitoring network plan (Network Plan) dated July 1, 2019. 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 (SC DHEC) provided the public a 30-day review period for each of the three submittals that are part of the Network Plan. It is the EPA's understanding that no comments on the Network Plan were received.

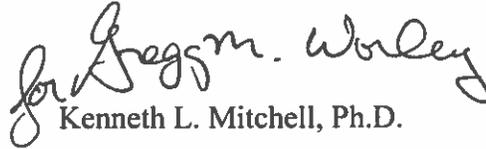
The Network plan proposed a number of changes to the SC monitoring network including:

- relocation of PM_{2.5} monitoring in the Charleston, SC area; and
- establishment of a rotating SO₂ monitoring network in which existing special purpose monitoring sites will operate an SO₂ monitor on a every other two-year schedule (i.e., each monitor will operate for two years and then be shut down for two years to save resources).

The EPA approves the proposed monitoring network changes and the Network Plan. The monitoring in South Carolina will meet monitoring network design criteria except for the recent requirement for a second near-road nitrogen dioxide monitor in the Charlotte area, due to estimated population increases in the Charlotte area. The EPA is working with the Mecklenburg County Air Quality (MCAQ) agency to meet this requirement.

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,

Handwritten signature of Kenneth L. Mitchell in cursive script.

Kenneth L. Mitchell, Ph.D.

Acting Director
Air and Radiation 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. Scott Hansen
Director, Environmental Services, Catawba Indian Nation

CY 2019 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 2019 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, 2018, 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, 2018, 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	2,569,213
Greenville-Anderson-Mauldin, SC	906,626
Columbia, SC	832,666
Charleston-North Charleston-Summerville, SC	787,643
Augusta-Richmond County, GA-SC	604,167
Myrtle Beach-Conway-North Myrtle Beach, SC-NC	480,891
Spartanburg, SC	341,298
Hilton Head Island-Bluffton-Beaufort, SC	217,686
Florence, SC	204,961
Sumter, SC	106,512

Proposed Monitoring Network Changes

The EPA has approval authority for changes to regulatorily required state or local air monitoring stations (SLAMS). SLAMS include the ambient air quality monitoring sites and monitors that are required by Appendix D of 40 CFR part 58 and are needed for the monitoring objectives of Appendix D, including NAAQS comparisons, but may also serve other data purposes. However, the EPA does not need to approve changes made to special purpose monitors (SPMs), which are monitors designated by the monitoring agency as special purpose and these monitors do not count towards minimum monitoring requirements of 40 CFR part 58.

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.

Some of the proposed SLAMS relocations and discontinuations were approved by the EPA in last year's Network Plan, but implementation of these network changes was postponed until 2020. These previously approved changes are listed in Tables 2 and 3, as well a newly proposed or not previously approved monitoring network changes.

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 discontinuation and will review and make a final decision for the next network plan. Big Creek is proposed to shut down after 2020 O ₃ season. The monitor will run for one year concurrently with the new Garrison Arena AQS ID 45-007-0006) site.
45-077-0002	Clemson	Greenville-Anderson-Mauldin, SC	O ₃	SLAMS	Previously approved. Monitoring relocation to Garrison Arena (AQS ID 45-007-0006). Expected after 2019 O ₃ season.
45-077-0003	Wolf Creek	Greenville-Anderson-Mauldin, SC	O ₃	SPM	Previously approved SLAMS 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. Operated 2019 as an SPM.
45-019-0048	FAA	Charleston-North Charleston-Summerville, SC	PM _{2.5}	SPM	Acknowledged. PM _{2.5} monitoring for the Charleston area will be conducted at the to be established North Charleston Fire Station (AQS ID 45-019-0020).
45-019-0049	CPW	Charleston-North Charleston-Summerville, SC	PM _{2.5}	SLAMS	Approved. Will be relocated to North Charleston Fire Station (AQS ID 45-019-0020)
45-015-0002	Bushy Park	Charleston-North Charleston-Summerville, SC	O ₃	SLAMS	Previously approved to relocate. Does not meet siting criteria. Moncks Corner site (AQS ID 45-015-1002) will be established as a replacement in Charleston CBSA.
45-063-0008	Irmo	Columbia, SC	Carbonyls, SVOCs, SO ₂	SPM	Acknowledged. The SC DHEC is losing access to this site in 2020. SC DHEC is looking for a PM _{2.5} replacement SLAMS site but will discontinue the other monitoring.
45-079-0007	Parklane	Columbia, SC	Pb	SLAMS	Approved. Discontinued 12/31/2018. Since 2016, Pb monitoring is no longer required at NCORE sites and the recorded concentrations have been low for years.
45-029-0002	Ashton	Walterboro, SC	PM _{2.5}	SLAMS	Previously approved. Monitor shut down January 2019.
45-043-0011	Howard High #3	None	PM ₁₀	SPM	Acknowledged shutdown of PM ₁₀ SPM. Not minimally required monitoring and has measured low PM ₁₀ concentrations.

45-025-0001	Chesterfield	Columbia, SC	PM _{2.5} speciation	SPM	Acknowledged. Discontinued January 2019 to use the sampler for speciation at the Parklane CSN site, where the current sampler was failing. Chesterfield is not part of the redesigned and funded CSN network, but Parklane is.
45-091-0008	York Landfill	Charlotte-Concord-Gastonia, NC-SC	SO ₂	SPM	Acknowledged. Will no longer operate every year and will instead operate every other two years. Will be used to evaluate background SO ₂ levels in the state.
45-019-0046	Cape Romain	Charleston-North Charleston, SC	SO ₂	SPM	Acknowledged. Will no longer operate every year and will instead operate every other two years. Will be used to evaluate background SO ₂ levels in the state.
45-079-0021	Congaree Bluff	Columbia, SC	SO ₂	SPM	Acknowledged. Will no longer operate every year and will instead operate every other two years. Will be used to evaluate background SO ₂ levels in the state.
45-073-0001	Long Creek	none	SO ₂	SPM	Acknowledged. Will no longer operate every year and will instead operate every other two years. Will be used to evaluate background SO ₂ levels in the state.

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	Previously approved. Relocation of Clemson O ₃ monitor. Approximately one mile southeast of the Clemson site. Expected to start for the 2020 ozone season.
45-015-1002	Moncks Corner National Guard	Charleston-North Charleston-Summerville, SC	O ₃	SLAMS	Previously approved. O ₃ monitor for Charleston MSA will be relocated from Bushy Park (45-015-0002). Rationale provided to show that this is in an area of expected maximum concentration. Expected to start for the 2020 ozone season.
45-019-0020	North Charleston Fire Station	Charleston-North Charleston-Summerville, SC	PM _{2.5}	SLAMS	Approved. Will meet PM _{2.5} monitoring requirements for Charleston area. Replacement site for CPW (45-019-0049) and FAA (45-019-0048), which do not meet regulatory siting criteria.
45-091-0008	York Landfill	Charlotte-Concord-Gastonia, NC-SC	SO ₂	SPM	Acknowledged. Will operate every other two years and not collect a complete design value. Will be used to evaluate background SO ₂ levels in the state.
45-019-0046	Cape Romain	Charleston-North Charleston, SC	SO ₂	SPM	Acknowledged. Will operate every other two years and not collect a complete design value. Will be used to

					evaluate background SO ₂ levels in the state.
45-079-0021	Congaree Bluff	Columbia, SC	SO ₂	SPM	Acknowledged. Will operate every other two years and not collect a complete design value. Will be used to evaluate background SO ₂ levels in the state.
45-073-0001	Long Creek	none	SO ₂	SPM	Acknowledged. Will operate every other two years and not collect a complete design value. Will be used to evaluate background SO ₂ levels in the state.

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. The SC DHEC reports AQI for these four MSAs and additional MSAs.

Table 4. AQI Reporting

MSAs Reporting
Columbia, SC
Charleston-North Charleston, SC
Florence-Darlington, SC
Greenville-Anderson-Mauldin, SC
Myrtle Beach-Conway-North Myrtle Beach, SC-NC
Augusta-Richmond County, GA-SC
Charlotte-Concord-Gastonia, NC-SC

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 NCore site must measure, at a minimum, PM_{2.5} particle mass using continuous and integrated/filter-based samplers, speciated PM_{2.5}, PM_{10-2.5} particle mass, O₃, SO₂, CO, NO/NO_y, wind speed, wind direction, relative humidity, and ambient temperature.

Table 5. NCore Monitoring Sites

CBSAs	AQS IDs	Site Name	Requirement Met (Y/N)
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Columbia, SC	45-079-0007	Parklane	Y
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The NCore monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

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

Ambient air monitoring network design criteria for O₃ are found in 40 CFR Part 58, Appendix D, Section 4.1. This section requires a state, and where appropriate, local agencies operate O₃ sites for various locations depending upon area size and typical peak concentrations.

Table 6. Ozone Design Criteria – Minimum Required SLAMS Monitors

CBSAs	# Minimum of Required SLAMS	# of SLAMS	# of SPMs or other regulatory monitors	Site Names (AQS IDs) of SLAMS	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC ¹	2	6	1	York Landfill (45-091-0008) Garinger (37-119-0041) University Meadows (37-119-0046) Crouse (37-109-0004) Rockwell (37-159-0021) Monroe Middle School (37-179-0003)	Y
Greenville-Anderson-Mauldin, SC ²	2	3	1	Big Creek (45-007-0005) Clemson CMS (45-077-0002)/Garrison Arena (45-007-0006) Hillcrest (45-045-0016)	Y
Columbia, SC	2	2	1	Parklane (45-079-0007) Sandhill (45-079-1001)	Y
Charleston-North Charleston-Summerville, SC	1	2	0	Bushy Park (45-015-0002)/Moncks Corner National Guard (45-015-1002) ³ Cape Romain (45-019-0046)	Y
Augusta-Richmond County, GA-SC ⁴	2	4	0	Jackson Middle School (45-003-0003) Trenton (45-037-0001) Evans (13-073-0001) Augusta (13-245-0091)	Y
Myrtle Beach-Conway-North Myrtle Beach, SC-NC	1	1	0	Coastal Carolina (45-051-0008)	Y
Spartanburg, SC	0	1	0	North Spartanburg Fire Station #2 (45-083-0009)	Y
Florence, SC	1	1	0	Pee Dee Exp. Station (45-031-0003)	Y
Not in an MSA	0	0	2	None	Y

1) The requirements for the Charlotte-Gastonia-Concord NC-SC MSA are being met by monitors in both South Carolina and North Carolina

- 2) In the Greenville-Anderson-Mauldin, SC MSA, the Clemson CMS site and the Wolf Creek SPM site (AQS ID 45-077-0003 – shown in Table 26) will shut down once Garrison Arena site is operating.
- 3) In the Charleston-North Charleston-Summerville, SC MSA the Bushy Park site will shut down once Moncks Corner is operating.
- 4) Requirements for the Augusta-Richmond County, GA-SC MSA are being met by monitors in both South Carolina and Georgia.

The EPA approved last year’s Network Plan that proposed to discontinue four O₃ monitors and to relocate two of these O₃ monitors to new O₃ monitoring sites. However, the two new O₃ monitoring sites were not established in time for the 2019 O₃ season. The two new sites, Garrison Arena site (AQS ID 45-007-0006) in the Greenville-Anderson-Mauldin, SC MSA and Moncks Corner National Guard site (AQS ID: 45-015-1002) in the Charleston-North Charleston-Summerville, SC MSA are expected to start operating for the 2020 O₃ season. For the 2019 O₃ season previously approved discontinued sites operated instead: Wolf Creek (AQS ID 45-077-0003) and Clemson (AQS ID 45-077-0002) in the Greenville area and Bushy Park (45-015-0002) in the Charleston area. The Big Creek (AQS ID 45-007-0005) monitor is proposed to operate concurrently with the new Garrison Area monitor for the 2020 O₃ season in the Greenville area. This concurrent data will be used to evaluate SC DHEC’s plan to discontinue monitoring at the Big Creek site after the 2020 O₃ season. The EPA will evaluate the proposed discontinuation of Big Creek in the next network plan. The EPA appreciates and supports the SC DHEC operating Big Creek and Garrison Arena ozone concurrently for the 2020 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.

**CO Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.2**

Ambient air monitoring network design criteria for CO are found in 40 CFR Part 58, Appendix D, Section 4.2. This section requires CBSAs with populations over one million but less than 2.5 million to operate one CO monitor collocated with a near-road NO₂ monitor, by January 1, 2017.

Table 7. CO Design Criteria – Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road CO	# Near-Road CO	Site Names (AQS IDs) of Existing Near-Road CO monitors	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC*	1	1	Remount Rd (37-119-0045)	Y

* In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by a monitor operated in Charlotte, North Carolina by the Mecklenburg County Air Quality agency

The Regional Administrator required monitoring for CO are found in 40 CFR Part 58, Appendix D 4.2.2. The section states, “The Regional Administrators, in collaboration with states, may require additional CO monitors above the minimum number of monitors required in 4.2.1.” There is no additional CO monitoring required at this time.

Table 8. CO Design Criteria – Minimum Required SLAMS RA Required Monitors

CBSA	# Minimum RA Required	# RA in Plan	Site Names (AQS IDs) of RA Required in Plan	Requirement Met (Y/N)
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None	0	0	None	Y
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The proposed CO 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.

In the Charlotte-Gastonia-Concord NC-SC CBSA the MCAQ agency operates one near-road monitoring site in Charlotte, NC, the Remount site (AQS ID 37-119-0045). When the initial near-road monitoring network was funded by EPA and established the Charlotte area was below the 2.5 million population threshold for a second near-road NO₂ monitoring site. However, the recent Census population estimate for the Charlotte-Concord-Gastonia, NC-SC CBSA is just over 2.5 million people. The EPA is working with MCAQ on planning for and funding the establishment of a second near-road monitoring site in the Charlotte area.

No other CBSA in South Carolina is required to have near-road NO₂ monitoring, at this time.

Table 9. NO₂ Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road NO ₂	# Near-Road NO ₂ in Plan	Site Names (AQS IDs) of Existing NO ₂ Near-Road in Plan	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC*	2	1	Remount Rd (37-119-0045)	N*

* In the Charlotte-Gastonia-Concord NC-SC CBSA one near-road monitoring site is operated in Charlotte, NC by the Mecklenburg County Air Quality (MCAQ) agency. Since recent estimated population increases in the Charlotte area, the EPA is working with MCAQ on funding and establishing a second near-road NO₂ site.

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. SC DHEC operates area-wide NO₂ monitoring in the Columbia area and SPM NO₂ monitoring in the Charleston area.

Table 10. NO₂ Design Criteria - Minimum Required SLAMS Area-Wide Monitors

CBSA	# Minimum Required Area-Wide NO ₂	# Area-Wide NO ₂ SLAMS	# SPM NO ₂	Site Names (AQS IDs) of Area-Wide NO ₂ SLAMS	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC*	1	1		Garinger High School site (37-119-0041)	Y
Columbia, SC	0	1	1	Parklane (45-079-0007)	Y
Charleston-North Charleston, SC	0	0	2		Y

* In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by a monitor operated in Charlotte, North Carolina; Table 26 lists the non-SLAMS monitoring in SC

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 Employment Security Commission (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>.

Table 11. NO₂ Design Criteria - Minimum Required SLAMS RA-40 Monitors

CBSA	# Minimum Required RA-40	# RA-40 in Plan	Site Names (AQS IDs) of RA-40 NO ₂	Requirement Met (Y/N)
Greenville-Anderson-Mauldin, SC	1	1	Greenville ESC site (450-045-0015)	Y

Except for near-road NO₂ monitoring in the Charlotte area, the NO₂ monitoring network described by the SC DHEC in its Network Plan meets all design criteria of 40 CFR Part 58.

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

Ambient air monitoring network design criteria for SO₂ are found in 40 CFR Part 58, Appendix D, Section 4.4. This section requires that the population weighted emissions index (PWEI) be calculated by states for each 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. A 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 12.

Table 12. SO₂ Design Criteria – Minimum Required SLAMS PWEI Monitors

CBSA	2018 population estimate	2014 NEI Emissions (tons per year)	PWEI	# Minimum Required PWEI SO ₂ monitors	# SO ₂ SLAMS in Plan	Site Names (AQS IDs) of Existing SO ₂ monitors in Plan	Requirement Met (Y/N)
Charleston-North Charleston-Summerville, SC	787,643	15,784	12,432	1	1	Jenkins Ave Fire Station (45-019-0003)	Y
Charlotte-Gastonia-Concord, NC-SC*	2,569,213	7,624	19,588	1	1	Garinger High School (37-119-0041)*	Y
Columbia, SC	832,666	17,769	14,796	1	1	Parklane (45-079-0007)	Y
Greenville-Anderson-Mauldin, SC	906,626	2,928	2,655	0	1	Greenville ESC (45-045-0015)	Y

* In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by a monitor operated in Charlotte, North Carolina by the Mecklenburg County Air Quality agency

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 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.

Table 13. SO₂ Design Criteria – Data Requirement Rule Monitors

CBSA	# Minimum Required	# Required in Plan	Site Names (AQS IDs) of Existing SO ₂ DRR monitors	Requirement Met (Y/N)
None	0	0	None	Y

The Regional Administrator may require additional SO₂ monitoring stations above the minimum number of monitors required in 40 CFR Part 58, Appendix D, Section 4.4.2, where the minimum monitoring requirements are not sufficient to meet monitoring objectives. There is no additional SO₂ monitoring required at this time.

Table 14. SO₂ Design Criteria – Minimum Required SLAMS RA Monitors

CBSA	# Minimum RA Required	# RA Required in Plan	Site Names (AQS IDs) of RA required SO ₂ monitors	Requirement Met (Y/N)
None	0	0	None	Y

The Network Plan proposes to operate four of the current SO₂ SPMs every other two years. Two sites will be operated during the same two years. The EPA supports this change as it will save the SC DHEC monitoring resources and these four monitors have recorded concentrations well below the NAAQS.

The EPA recommends that the SC DHEC evaluate the listed monitoring objective for Cape Romain, which is “source oriented”. The last three design values for the Cape Romain SO₂ monitor have been 4 ppb compared to a standard of 75 ppb. The SO₂ design value of 4 ppb is similar to SO₂ monitors in South Carolina with background or transport monitoring objectives. The EPA also recommends that the SC DHEC consider operating the rotating background SO₂ monitors in accordance with 40 CFR 58 Appendix B, if the primary data use for these monitors is for PSD modeling or permitting.

Table 15. SO₂ Rotating Background SO₂ Monitoring

CBSA	Site Names (AQS IDs)	Frequency of Operation	Next Expected Years of Operation	Monitoring Objective in Network Plan	2018 Design Value (ppb)
Charlotte-Concord-Gastonia, NC-SC	York Landfill (45-091-0008)	Every other 2 years	2020-2021	Upwind background	2*
Charleston-North Charleston, SC	Cape Romain (45-019-0046)	Every other 2 years	2020-2021	Source oriented	4
Columbia, SC	Congaree Bluff (45-079-0021)	Every other 2 years	2022-2023	General background	3
None	Long Creek (45-073-0001)	Every other 2 years	2022-2023	Regional transport	2

*The design value for York Landfill is incomplete. This monitor has not operated for a complete 3 years. However, it was a replacement site for the previously nearby site, York CMS (AQS ID 45-091-0006), which recorded similar SO₂ concentrations to those measured at York Landfill.

The proposed SO₂ 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

The monitoring requirements for Pb found at 40 CFR Part 58, Appendix D, Section 4.5 require that at a minimum, there must be one source-oriented SLAMS 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 emissions 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. This monitoring is comparable to the NAAQS. 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.

Table 16. Pb Design Criteria – Minimum Required Source-Oriented Monitors

Source	CBSA	# Minimum Required Source-Oriented Pb monitoring	# Source Oriented Pb sampling sites in Plan	Site Names (AQS IDs) of Existing Source-Oriented Pb in Plan	Requirement Met (Y/N)
Johnson Controls Incorporated*	Florence, SC	0	3	The JCI Railroad (45-041-8001) The JCI Entrance (45-041-8002) JCI Woods (45-041-8003)	Y

*This monitoring is not minimally required by EPA rules, but is part of a settlement agreement between SC DHEC, the facility, and community groups. SC DHEC operates these samplers as SPMs to evaluate Pb NAAQS compliance.

On March 28, 2016, the EPA published changes in the ambient air monitoring rules for the NCore network design and removed Pb monitoring at NCore sites from the requirements (81 FR 17248). This rule became effective on April 27, 2016. SC DHEC continued to operate Pb monitoring at its NCore site, Parklane (AQS ID 45-079-0007), until December 31, 2018. The EPA supports the SC DHEC’s discontinuation of Pb monitoring at Parklane, since this monitoring is no longer required and Pb concentrations measured were well under the standard.

The Pb collocation requirements found in 40 CFR Part 58, Appendix A, 3.4.4. Those requirements include that: 15 percent of the primary monitoring (not counting non-source oriented NCore sites in the primary quality assurance organization (PQAO)) are collocated and have at least one collocated quality control monitor (if the total number of monitors is less than three). These collocation requirements are assessed at the PQAO level.

Table 17. Pb Design Criteria – Minimum Required Collocated Monitors

PQAO	# Minimum Required Collocated	# Collocated in Plan	Site Names (AQS IDs) of Collocated Sites in Plan	Requirement Met (Y/N)
SC DHEC	1	1	JCI Entrance (45-041-8002)	Y

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

Ambient air monitoring network design criteria for PM₁₀ are found in 40 CFR Part 58, Appendix D, Section 4.6. Table D-4, in this section, indicates the approximate number of PM₁₀ stations required in MSAs to characterize national and regional PM₁₀ air quality trends and geographical patterns.

Table 18. PM₁₀ Design Criteria – Minimum Required SLAMS Monitors

MSA	# Minimum Required SLAMS sites	# SLAMS sites	# of SPMs or other regulatory monitoring sites	Site Names (AQS IDs) of Existing SLAMS in Plan	Requirement Met (Y/N)
Charlotte-Gastonia-Concord, NC-SC ¹	2	2	0	Montclaire (37-119-0042) ¹ Garinger (37-119-0041)	Y
Augusta-Richmond County, GA-SC ²	1 ²	1	0	Augusta (13-245-0091) ²	Y
Greenville-Anderson-Mauldin, SC	1	1	0	Greenville ESC (45-045-0015)	Y
Columbia, SC	1	1	1	Cayce City Hall (45-063-0010)	Y
Charleston-North Charleston-Summerville, SC	1	1	0	Jenkins Ave. Fire Station (45-019-0003)	Y
Not in an MSA	0	0	1		Y

1) In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by monitors operated in Charlotte, North Carolina by the Mecklenburg County Air Quality agency. The Montclaire site has shutdown due to site access issues and the EPA is working with MCAQ to establish a new PM₁₀ site in Charlotte by 2020.

2) In the Augusta-Richmond County, GA-SC MSA the requirement is being met by a monitor operated in Georgia by the Georgia Environmental Protection Division; see the EPA's determination below for the Augusta minimum monitoring requirement.

*Table 26 lists the non-SLAMS monitoring in SC

In the Augusta-Richard County, GA-SC MSA, the Augusta (AQS ID 13-245-0091) PM₁₀ site measured one exceedance of the NAAQS on January 25, 2017. According to information provided by the GA EPD, the exceedance was possibly due to smoke from prescribed burning at Fort Gordon. The manual PM₁₀ sampler that recorded the exceedance was operating on a 1-in-6 day sampling schedule. Because the PM₁₀ NAAQS design value is based on estimated exceedances, this one exceedance resulted in a violating 2016-2018 design value for the site. On October 1, 2017, Georgia EPD replaced the manual PM₁₀ sampler at the site with a continuous PM₁₀ sampler.

The PM₁₀ minimum monitoring requirements found in 40 CFR Part 58, Appendix D, Table D-4 indicate that the minimum number of PM₁₀ monitors for the MSA would increase if the area went 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). The EPA believes that given the long-term record of low PM₁₀ concentrations in the Augusta CBSA, one PM₁₀ continuous monitor in the area is sufficient and the EPA considers the August MSA to be an area of low concentration. However, should the monitor measure future exceedances or violations of the PM₁₀ NAAQS, the number of required PM₁₀ monitors in the area may need to be reconsidered.

It is the EPA’s understanding that the SC DHEC discontinued PM₁₀ monitoring at the Howard High #3 site (AQS ID 45-043-0011), in April 2019. The Howard High monitor was a SPM, the PM₁₀ measurements have been well below the standard, and PM₁₀ monitoring is not minimally required for this area, Georgetown, SC. SPMs do not require the EPA’s approval to discontinue. The SC DHEC discussed this shutdown with EPA staff and shutdown the monitoring in April of 2019 to save monitoring resources.

The PM₁₀ collocation requirements for manual methods found in 40 CFR Part 58, Appendix A, 3.3.4. Those requirements include that: Fifteen percent of each network of manual PM₁₀ methods (at least one site) must be collocated, and the sites with collocated monitors should be among those measuring annual mean concentrations in the highest 25 percent of the network. These collocation requirements are assessed at the PQAQ level.

Table 19. PM₁₀ Design Criteria – Minimum Required Collocated Monitors

PQAQ	# Sites with Manual PM ₁₀ Method	# Minimum Required Collocated Monitors	# Collocated PM ₁₀ Monitors	Site Names (AQS IDs) of Collocated Sites in Plan	Requirement Met (Y/N)
SC DHEC	2	1	1	Chesterfield (45-025-0001)	Y

The proposed PM₁₀ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

PM_{2.5} Monitoring Requirements
40 CFR Part 58, Appendix A, 3.2.3
40 CFR Part 58, Appendix D, Table D-5

Ambient air monitoring network design criteria for PM_{2.5} are found in 40 CFR Part 58, Appendix D, Section 4.7. This section requires the state and, where applicable, local agencies must operate the minimum number of required PM_{2.5} SLAMS sites listed in Appendix D, Table D-5.

Table 20. PM_{2.5} Design Criteria – Minimum Required SLAMS Monitors

CBSAs	# Minimum of Required SLAMS	# of PM _{2.5} SLAMS Sites	# of SPM or Other Regulatory Sites	Site Names (AQS IDs) of PM _{2.5} SLAMS	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC ¹	2	4	1	Garinger (37-119-0041) Montclaire (37-119-0042) ² Remount (37-119-0045) Rockwell (37-159-0021)	Y
Greenville-Anderson-Mauldin, SC	1	2	0	Greenville ESC (45-045-0015) Hillcrest (45-045-0016)	Y
Columbia, SC	1	1	0	Parklane (45-079-0007)	Y
Charleston-North Charleston-Summerville, SC	1	1 ³	1 ³	CPW (45-019-0049)/North Charleston Fire Station (45-019-0020) ³	Y
Augusta-Richmond County, GA-SC ⁴	1	1	1	Augusta (13-245-0091)	Y
Spartanburg, SC	0	1	0	T.K. Gregg (45-083-0011)	Y
Florence, SC	0	1	0	Williams Middle School (45-041-0003)	Y
Not in an MSA	0	1	1	Chesterfield (45-025-0001)	Y

- 1) In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by monitors in North Carolina;
- 2) The Montclaire PM_{2.5} monitor is being relocated for 2020 by the MCAQ agency;
- 3) The SC DHEC is planning to consolidate the FAA and CPW sites into the North Charleston Fire Station Monitoring Site by January 1, 2020. Either FAA and/or the CPW Site will run concurrently for one year with the North Charleston Fire Station site. FAA is currently operated as an SPM site and is summarized in Table 26 below;
- 4) In the Augusta-Richmond County, GA-SC MSA the requirement is being met by a monitor operated in Georgia;

The Network Plan proposes to establish a new PM_{2.5} monitoring site in the Charleston-North Charleston-Summerville, SC MSA, the North Charleston Fire Station site (AQS ID 45-019-0020), which will replace the existing PM_{2.5} sites in the area. Both existing PM_{2.5} sites in the area, CPW (AQS ID 45-019-0049) and FAA (AQS ID 45-019-0048), in the Charleston area have issues with unobstructed air flow and proximity to tree drip lines and do not meet regulatory siting criteria. The SC DHEC has been unable to coordinate with the property owners at these sites to trim or remove obstructing trees.

Thus, the SC DHEC has worked with EPA staff to identify a replacement location for PM_{2.5} monitoring in the Charleston area that will meet siting criteria. EPA staff have visited the proposed North Charleston Fire Station site and confirmed that siting criteria will be met. The EPA supports the SC DHEC's decision to locate the new site to the "Neck" area of the Charleston region. The Neck area is near significant marine port operations and next to communities that have historically had concerns about air quality and their proximity to local industry. The CPW and FAA sites most recent annual design values are 60% of the NAAQS (7.2 ug/m³). The new site is closer to industry and port activity and may potentially measure higher PM_{2.5} concentrations than the CPW and FAA monitors.

The CPW and FAA sites will discontinue PM_{2.5} monitoring once the North Charleston Fire Station has been established. SC DHEC plans to operate PM_{2.5} one of these sites for one year concurrently with the new North Charleston Fire Station site to compare the data. Thus, the EPA approves the shutdown of the CPW site and the startup of the North Charleston Fire Station site. The FAA site has been deemed special purpose by the SC DHEC and does not require the EPA approval to discontinue. The Charleston MSA is minimally required one PM_{2.5} monitor and the North Charleston Fire Station site will meet this requirement.

40 CFR Part 58, Appendix A, Section 3.2.3 states 15 percent of each network of manual PM_{2.5} methods (at least one site) must be collocated. 40 CFR Part 58, Appendix A, Section 3.2.3.1 states for each distinct monitoring method designation (FRM or FEM) that a PQAQO is using for a primary monitor, the PQAQO must have 15 percent of the primary monitors of each method designation collocated; and have at least one collocated quality control monitor. The first collocated monitor must be a designated FRM monitor.

40 CFR Part 58, Appendix A, Section 3.2.3.2 states for each primary monitor designated as an FEM used by the PQAQO, 50 percent of the monitors designated for collocation (or the first if only one collocation is necessary) shall be collocated with a FRM quality control monitor and 50 percent of the monitors shall be collocated with a monitor having the same method designation as the FEM primary monitor.

Table 21. PM_{2.5} Design Criteria – Minimum Required Collocated Monitors

PQAQO	Method	# Primary Monitors	# Minimum Required Collocated Monitors	# Collocated Monitors in Plan	Site Names (AQS IDs) of Collocated Sites in Plan	Requirement Met (Y/N)
SC DHEC	2025 PM _{2.5} Sequential Air Sampler w/VSCC (FRM)	8	1	3	T.K. Gregg site (45-083-0011), Parklane (45-079-0007); Hillcrest (45-045-0016)	Y
SC DHEC	Thermo 1405-F FDMS w/VSCC	3	1	2	Greenville ESC (45-045-0015) Irmo (45-063-0008)	Y

The proposed PM_{2.5} monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

PM_{2.5} Near-road Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.7.1(b)(2)

Regulatory requirements in 40 CFR Part 58, Appendix D, 4.7.1(b)(2) require that “CBSAs with a population of 1,000,000 or more persons, at least one PM_{2.5} monitor is to be collocated at a near-road NO₂ station.” PM_{2.5} near-road monitoring is required in the Charlotte-Gastonia-Concord NC-SC CBSA.

Table 22. PM_{2.5} Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road	# Near-Road PM _{2.5}	Site Names (AQS IDs) of Existing Near-Road in Plan	Requirement Met (Y/N)
*Charlotte-Gastonia-Concord NC-SC	1	1	Remount (37-119-0045)	Y

*This requirement is met by a monitor operated in Charlotte, North Carolina by the Mecklenburg County Air Quality agency

The near-road PM_{2.5} monitoring network described in the Network Plan meets design criteria of 40 CFR Part 58.

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 23, 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.

Table 23. PM_{2.5} Design Criteria – Continuous monitors

MSA	# Minimum Required Continuous PM _{2.5}	# Continuous PM _{2.5} Monitors	Site Names (AQS IDs) of Existing Continuous PM _{2.5} Monitors	Requirement Met (Y/N)
Charlotte-Gastonia-Concord NC-SC*	1	4	Garinger (37-119-0041) Montclair (37-119-0042) Remount (37-119-0045) Rockwell (37-159-0021) Catawba Longhouse (45-091-8801)	Y
Greenville-Anderson-Mauldin, SC	1	1	Greenville ESC (45-045-0015)	Y
Columbia, SC	1	2	Irmo (45-063-0008) Parklane (45-079-0007)	Y
Charleston-North Charleston-Summerville, SC	1	2	North Charleston Fire Station (45-019-0020); Cape Romain (45-019-0046); CPW (45-019-0049)	Y
Augusta-Richmond County, GA-SC	1	1	Trenton (45-037-0001)	Y
Florence, SC	0	1	Williams Middle School (45-041-0003)	Y
Spartanburg, SC MSA	0	1	T.K. Gregg (45-083-0011)	Y
Not in an MSA	0	1	Longcreek (45-073-0001)	Y

* In the Charlotte-Gastonia-Concord NC-SC CBSA this requirement is met by monitors operated in Charlotte, NC by the Mecklenburg County Air Quality agency, a monitor operated in South Carolina by the Catawba Indian Nation, and a monitor operated by the North Carolina Division of Air Quality in Rowan County, NC.

The continuous PM_{2.5} monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

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

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.”

Table 24. PM_{2.5} Regional Background and Transport Monitors

Requirement	# Minimum Required	# in Plan	Site Names (AQS IDs) of SLAMS in Plan	Requirement Met (Y/N)
Background	1	1	Cape Romain (45-019-0046)	Y
Transport	1	1	Chesterfield (45-025-0001)	Y

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**

Monitoring requirements in 40 CFR Part 58, Appendix D, Section 4.7.4 state that each State shall conduct chemical speciation monitoring and analyses at sites designated to be part of the PM_{2.5} Speciation Trends Network (STN). The selection and modification of these STN sites must be approved by the Administrator. The PM_{2.5} CSN includes STN stations and supplemental speciation stations that provide chemical species data of fine particulate.

Table 25. PM_{2.5} Chemical Speciation Network – Non-SLAMS Monitors

CBSA	AQS IDs (site name) of CSN Monitor
Columbia, SC	Parklane (45-079-0007)

In 2014, 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.

In 2015, the EPA defunded two CSN monitors at sites in South Carolina including the Chesterfield (AQS ID 45-025-0001) speciation monitor. However, after the assessment SC DHEC chose to continue operating the Chesterfield speciation monitor. In December 2018, the DHEC decided to, in consultation with EPA staff, to discontinue collecting PM_{2.5} speciation data at Chesterfield. Speciation monitoring at the Parklane (AQS ID 45-079-0007) site was identified in EPA’s 2014 assessment as being of higher value than speciation measurements at Chesterfield. The SC DHEC continues to operate a PM_{2.5} speciation monitor at Parklane. The EPA supports SC DHEC’s decision to discontinue speciation monitoring at Chesterfield at the end of 2018. The CSN monitoring in South Carolina still meets the recommendations of EPA’s 2014 CSN assessment.

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

With the promulgation of a new O₃ NAAQS on October 1, 2015, the EPA finalized changes to the PAMS requirements. The EPA is working on a proposed rule that will provide state and local agencies an additional two years from the current implementation date of June 1, 2019 to implement the PAMS program requirements.

The South Carolina NCore site, 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.

Air Toxics Monitoring Network

As part of the National Air Toxics Trends Station (NATTS) network, SC DHEC samples for metals, semi-volatile organic compounds, carbonyls, and volatile organic compounds at the Chesterfield monitoring site (AQS ID 45-025-0001). SC DHEC also collects samples for air toxics in the Columbia, SC MSA at the Parklane (AQS ID 45-079-0020) and State Hospital (AQS ID 45-079-0020) sites. The collection and analysis of air toxics samples at Chesterfield is conducted in accordance with SC DHEC's EPA approved NATTS quality assurance project plan (QAPP). Air toxic sampling at Parklane and State Hospital is conducted at SC DHEC's discretion and not collected under an EPA approved QAPP. The EPA recommends that SC DHEC develop a QAPP for this sampling, if there currently is not one.

Non-SLAMS Monitoring

The Network Plan also includes the following non-SLAMS monitoring summarized in Table 26. These monitors include criteria monitoring comparable to the NAAQS, continuous PM_{2.5} monitoring used for the AQI, air toxics monitoring, and tribal monitoring conducted by the Catawba Indian Nation. Many of these monitors have been designated special purpose by SC DHEC.

Table 26. Non-SLAMS Monitors

CBSA	Pollutant	Site Name (AQS ID) of Non-SLAMS Monitor in Plan	Monitor Type	NAAQS Comparable
Charleston-North Charleston-Summerville, SC	PM _{2.5} continuous for AQI	CPW (45-019-0049)/North Charleston Fire Station (45-019-0020) ¹	SPM	No
Charleston-North Charleston-Summerville, SC	PM _{2.5}	FAA (45-019-0048) ¹	SPM	Yes
Charleston-North Charleston-Summerville, SC	NO ₂	Cape Romain (45-019-0046) Jenkins Ave. Fire Station (45-019-0003)	SPM	Yes
Charlotte-Gastonia-Concord, NC-SC ²	PM _{2.5} continuous; O ₃	Catawba Longhouse (45-091-8801) ²	Tribal	Yes
Columbia, SC	PM ₁₀ , SVOCs	Parklane (45-079-0020)	SPM	PM ₁₀ – Yes; No NAAQS for SVOCs
Columbia, SC	PM _{2.5} continuous	IRMO (45-063-0008)	SPM	Yes
Columbia, SC	O ₃	Congaree Bluff (45-079-0021)	SPM	Yes – designated by SC to only be representative of O ₃ in the Congaree national park
Columbia, SC	VOCs, Carbonyls	State Hospital (45-079-0020)	SPM	No NAAQS for VOCs and Carbonyls
Greenville-Anderson-Mauldin, SC	PM _{2.5} Continuous	Greenville ESC (45-045-0015)	SPM	Yes

Greenville-Anderson-Mauldin, SC	O ₃	Wolf Creek (45-077-0003) ³	SPM	Yes
Augusta-Richmond County, GA-SC	PM _{2.5}	Trenton (45-037-0003)	SPM	Yes
Spartanburg, SC	PM _{2.5} continuous for AQI	T K Gregg (45-083-0011)	SPM	No
Florence, SC	Pb	The JCI Railroad (45-041-8001) The JCI Entrance (45-041-8002) JCI Woods (45-041-8003)	SPM	Yes
Not in an MSA	PM ₁₀ , O ₃ , Carbonyls, VOCs, SVOCs	Chesterfield (45-025-0001)	SPM	PM ₁₀ , O ₃ -Yes; No NAAQS for Carbonyls, VOCs, SVOCs
Not in an MSA	PM _{2.5} continuous for AQI, O ₃	Longcreek (45-073-0001)	SPM	O ₃ - Yes; PM _{2.5} - No

- 1) The SC DHEC is planning to consolidate the FAA and CPW sites into the North Charleston Fire Station Monitoring Site by January 1, 2020. Either FAA and/or the CPW Site will run concurrently for one year with the North Charleston Fire Station site. FAA is currently operated as an SPM site.
- 2) Monitoring at the Catawba Longhouse site is conducted by the Catawba Indian Nation and comparable to the NAAQS.
- 3) The Wolf Creek ozone site will discontinue once the Garrison Arena site is operating.

**Memoranda of Agreement (MOA) with Neighboring State and Local Air Monitoring Agencies
40 CFR Part 58, Appendix D, 2 (e)**

Section 2 (e) of Appendix D to 40 CFR 58 states:

“The EPA recognizes that State or local agencies must consider MSA/CSA boundaries and their own political boundaries and geographical characteristics in designing their air monitoring networks. The EPA recognizes that there may be situations where the EPA Regional Administrator and the affected State or local agencies may need to augment or to divide the overall MSA/CSA monitoring responsibilities and requirements among these various agencies to achieve an effective network design. Full monitoring requirements apply separately to each affected State or local agency in the absence of an agreement between the affected agencies and the EPA Regional Administrator.”

The SC DHEC maintains MOAs to address minimum monitoring requirements with the GA EPD, the North Carolina Division of Air Quality of Environmental Quality (NC DAQ), and the MCAQ agency. These MOAs are summarized below.

Table 27. MOAs to meet monitoring requirements for CBSAs that cross jurisdictional boundaries

Affected CBSA/MSA	Monitoring Agencies on the MOA	Pollutants	Date of Agreement	Expiration
Augusta-Richmond County, GA-SC MSA	SC DHEC GA EPD	PM ₁₀ , PM _{2.5} , O ₃ , and other criteria pollutants as necessary	January 2017	Reviewed every 10 years
Charlotte-Concord-Gastonia NC-SC MSA	SC DHEC NC DAQ MCAQ	Adequate criteria pollutant monitoring required by 40 CFR 58 Appendix D	July 1, 2016	Reviewed every 10 years

Myrtle Beach- Conway-North Myrtle Beach MSA	SC DHEC NC DAQ	O ₃ and other criteria pollutants as necessary	July 1, 2015	Reviewed every 10 years
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The EPA approves of the SC DHEC's agreements to share regulatory monitoring requirements for the Augusta, Charlotte, and Myrtle Beach areas.

**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:

“The 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.

