Ambient Air Monitoring Plan

2010

Chattanooga/Hamilton County Air Pollution Control Bureau
Knox County Health Department, Department of Air Quality Management
Memphis/Shelby County Health Department, Air Pollution Control Program
Metropolitan Health Department, Division of Air Pollution Control
Tennessee Dept. of Environment and Conservation, Air Pollution Control Division

July 1, 2010

Approvals

1) Signature: Jackie L. Waymick Date 6/29/10
Manager, Technical Services Program
Tennessee Air Pollution Control

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Data Management and Quality Control Supervisor
Tennessee Air Pollution Control

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EPA Region 4

Tennessee Geographic Regions and Descriptions

In order to have a more meaningful understanding of its different land patterns and variations, geographers and geologists have divided the State into nine natural regions or physiographic provinces. From west to east (see map of Natural Regions of Tennessee) these are the Mississippi Alluvial Valley, West Tennessee Plain, West Tennessee Uplands, Western Highland Rim, Central Basin, Eastern Highland Rim, Cumberland Plateau, Valley and Ridge, and Unaka Mountains.

MISSISSIPPI ALLUVIAL VALLEY

The Mississippi Alluvial Valley, situated along the State's western border, is a relatively narrow strip of land that varies from 5 to 20 miles in width and is oriented in a north to south direction. Covering an area of only 57 square miles, it is the smallest of the State's natural regions. The western boundary of the region is the Mississippi River; the eastern boundary is the Chickasaw Bluffs of the West Tennessee Plain. Although six counties have some area in the region, only Lake County is found entirely within he Mississippi Alluvial Valley. The average elevation of this floodplain region is 235 feet, although it may be as high as 290 feet in Lake County and as low as 185 feet in Shelby County.

WEST TENNESSEE PLAIN

The West Tennessee Plain has an area of 7731 square miles and is the second largest physiograph province in the State. This plain is 45 to 65 miles wide and is bounded on the west by the Chickasaw Bluffs. The eastern boundary follows the drainage divided between the Mississippi River and the Western Valley of the Tennessee River. Eighteen of the State's counties are either completely or partially situated in the West Tennessee Plain. The topography of the West Tennessee Plain is a relatively flat terrain that slopes gently westward to the Mississippi River floodplain. Elevations of 450 feet are found on West Tennessee Plain's eastern side and around 280 feet on the west. Relief in most areas is less than 200 feet.

WEST TENNESSEE UPLANDS

The West Tennessee Uplands, the second smallest physiographic province in the State, occupies an area of 1928 square miles. The drainage divided between the Mississippi and Tennessee Rivers forms the region's western boundary, while the eastern boundary is marked by the Tennessee River. The width of this upland region is 15 to 45 miles and covers parts of seven of the State's counties. Although it is not considered a rugged region, the West Tennessee Uplands has greater relief and contrast than the West Tennessee Plain. Broad expanses of undulating plains are found here. The average elevation of this upland province is 700 feet with relief varying from 100 to 300 feet.

HIGHLAND RIM

The Highland Rim, covering an area of 10,572 square miles, is the largest physiographic province in Tennessee. It extends from the Tennessee River in the west to the western escarpment of the Cumberland Plateau in the east. A large part of the Highland Rim's center has been eroded out by the Cumberland River, forming the large, oval-shaped Central Basin. The presence of Central basin, as well as the Highland Rim being relatively narrow in the State's north and south borders, has led to the dividing of the Highland Rim into western and eastern divisions. The Western Highland Rim is the larger of the two, with an area of 6566 square miles. Together, these divisions account for area in 39 of the State's counties. The Western Highland Rim varies from 25 to 45 miles in width and consists of a rolling terrain heavily dissected by stream erosion. Elevations on the Western Highland Rim's tableland range from 800 to 1000 feet, while relief varies from 100 to 200 feet. The

Eastern Highland Rim averages 25 miles in width and has an elevation of 900 to 1100 feet. The topography is comprised of an undulating tableland of low relief with widely scattered hills and knobs.

CENTRAL BASIN

The Central Basin, also known as the Nashville basin, is a larger pear-shaped area occupying much of the geographic center of the State. The area has a total of 5851 square miles, measures 65 miles east to west and 95 miles north to south. With the exception of the valley of the Cumberland River at its northern corners, the central Basin is entirely surrounded by the Highland Rim. Wilson, Rutherford, and Marshall Counties are situated entirely within the Basin; parts of 23 other counties are also found there. Differences in typography have caused the Central Basin to sometime be divided into two different regions. Large areas of the region's geographic center are known as The Inner Basin. This topography is extremely level and has an average elevation of 650 feet. Relief in most areas is less than 50 feet. Relief in most areas is less than 50 feet. The few hills and knobs that rise above the landscape are commonly less than 100 feet in height. The Outer Basin includes the rest of the province and is comprised of an undulating, hilly type topography. Numerous hills and ridges mark the landscape and are especially prominent at the outer edge. The average elevation in this part of the basin is 750 feet, but may vary as much as 250 feet.

CUMBERLAND PLATEAU

Covering an area of 2980 square miles, the Cumberland Plateau is an elevated tableland bounded on the west by the Eastern Highland Rim and on the east by the Valley and Ridge. The greatest width, 75 miles, is near the Kentucky border. At its most southern point in the State, the Cumberland Plateau is about 35 miles in width. Five of the State's counties are entirely within the region, while another 17 counties are situated partially in this area. The Cumberland Plateau's topography varies in different parts of the region. In places, the surface has been cut by stream valleys and precipitous gorges that are 200 to 400 feet deep. The tableland part of the Cumberland Plateau has an average elevation of 1800 feet. The elevations are generally lower in the northern part at 1700 to 1900 feet. Far to the south in Marion and Hamilton Counties, the elevations are somewhat higher, around 2000 to 2100 feet. Relief varies from as little as 100 feet to as much as 400 feet.

VALLEY AND RIDGE

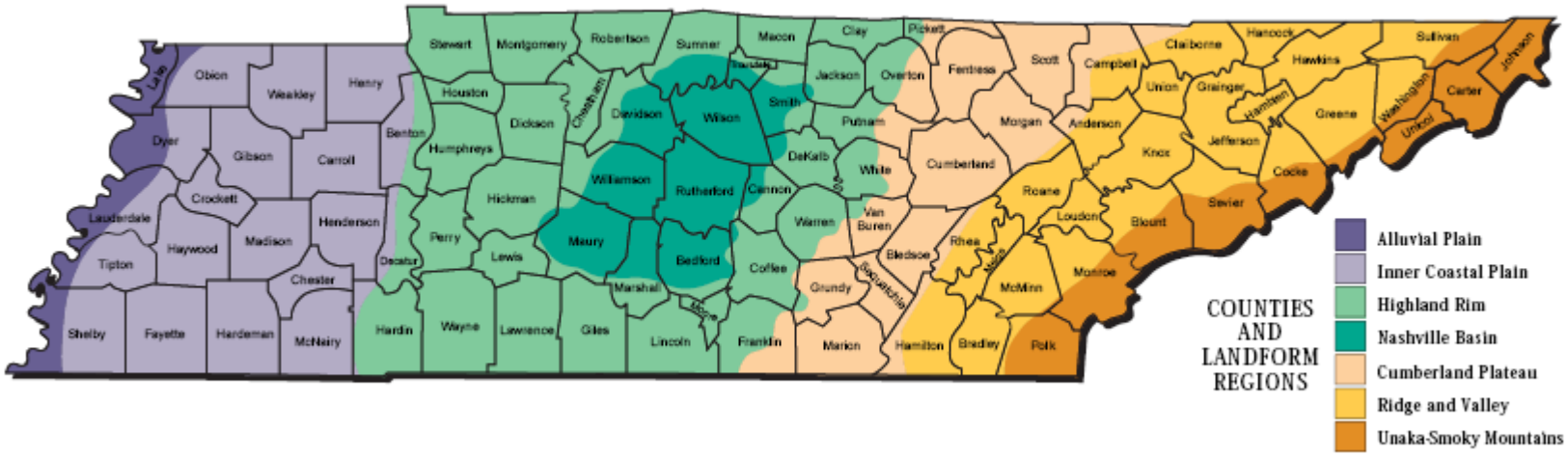
The Valley and Ridge covers 7703 square miles and is situated between the Cumberland Plateau to the west and the Unaka Mountains to the east. The width of the region ranges from as much as 70 miles along the Kentucky border to as little as 30 miles near the Georgia State Line. In most places, it averages 45 miles in width. Twenty-seven counties of Tennessee are either completely or partially found in this Valley and Ridge region. The topography of the Valley and Ridge consists of long linear ridges and parallel lowland valleys that trend in a northeast to southwest direction. The ridges usually have high elevations of 1100 to 1500 feet while the adjacent valley floors vary from 700 feet to 1000 feet. The ridges and valleys generally have high elevations in the northern part of the region; they are slightly less elevated to the south.

UNAKA MOUNTAINS

Covering an area of 2523 square miles, the Unaka Mountains region is the most eastern physiographic province in Tennessee and extended along its entire eastern border adjacent to North Carolina. The width of the region varies from 5 to 25 miles. Although 13 counties have part of their land area within the region, Johnson County is the only on having all of its area completely within the region. The Unaka Mountains region is known for having the highest and most rugged terrain in Tennessee. Lofty mountainous ridges and peaks, heavily forested and deeply carved by precipitous stream valleys, comprise the topography. The highest point, in both the region and the State, is Clingman's Dome (6643 ft) in Sevier County. In addition to Clingman's Dome, there are 13 other mountain peaks in the Unakas with heights of over 6000 feet and 33 peaks of more than 5000 feet. A very

large percentage of those peaks are situated directly on the Tennessee State Line, with the greatest concentration found in Sevier County. Narrow lowland valleys and isolated coves are also a part of the topography of the region. The floors of these topographic features range from 1000 to 2000 feet in elevation.

Tennessee Geographic Regions



Climate Synopsis for Tennessee

The highly varied topography of Tennessee has a significant impact on the state's climate. The landscape varies generally from west to east, starting with the gently rolling lowlands (200-600' above sea level) in the west, rising to the Highland Rim (600-1000') enclosing the Central Basin, and on up to the Cumberland Plateau (~2000') which trends northeast-southwest across the state in a belt 30-50 miles wide. East of the Plateau is the Great Valley of East Tennessee (elevations ranging from 1500' in the north down to 700' in the south) containing a series of northeast-southwest ridges. The eastern border of the state is dominated by the Great Smoky Mountains, with numerous peaks rising 4000' to 6000' above sea level.

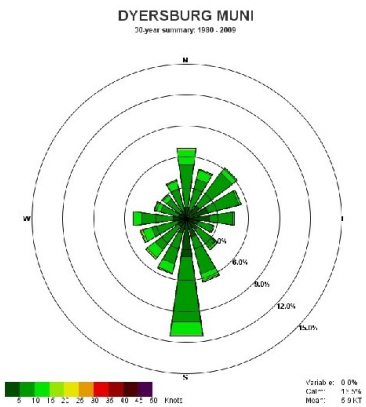
Average annual temperature across the state range from around 55F to a bit over 60F. Winter mean temperatures are near 35F over most of the state, while summer temperatures average between 75F and 80F. Of course, these general patterns are affected by topography: the higher mountain areas tend to have milder summers as well as colder, more blustery winters. The length of the growing season is also linked to topography: most of the state has a growing season between 180 and 220 days, but this stretches to over 235 days in the lowlands around Memphis and drops to near 130 days in the highest mountains to the east.

The principal source of moisture for the state is the Gulf of Mexico to the south, which results in a gradual decrease of precipitation from south to north. This gradient is largely obscured, however, by orographic effects. In West Tennessee, annual precipitation amounts range from 46 inches to 54 inches, increasing from the Mississippi bottomlands to the slight hills farther east. In Middle Tennessee, the variation is from around 45 inches in the Central Basin to 50-55 inches in the surrounding Highland Rim. The Cumberland Plateau also averages 50-55 inches per year. In the Great Valley of Eastern Tennessee, annual precipitation rises from a minimum of 40 inches in the north (the driest part of the state due to the rain shadow effect of the Great Smoky Mountains and the Cumberland Plateau) to over 50 inches in the south. The mountainous eastern border of the state is the wettest part, with annual totals of up to 80 inches in the higher, well-exposed peaks.

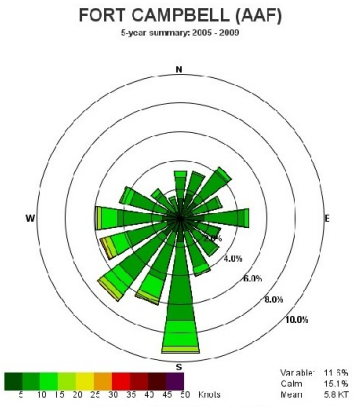
Over most of the state, the greatest precipitation occurs in winter and early spring owing to the more frequent passage of large-scale (frontal) storms over the region. A secondary maximum of precipitation occurs in midsummer in response to shower and thunderstorm activity, especially in July in the mountains of the east. Fall tends to be the dry season for the state, due to the higher frequency of slow-moving high pressure areas during this season. Average annual snowfall ranges from 4-6 inches in the south and west to over 10 inches in the east. Due to the relatively mild winter conditions over most of the state, snow cover rarely persists for more than a few days.
Severe storms are relatively infrequent in the state, being east of the center of tornado activity, south of most blizzard conditions, and too far inland to be often affected by hurricanes. An average of 11 tornadoes are observed in the state each year, mostly confined to areas west of the Cumberland Plateau. Hailstorms at a given location are observed 2 or 3 times a year, and damaging glaze storms occur in the state every 5 or 6 years. Thunderstorms are frequent in the warm season, and severe thunderstorms with damaging winds are experienced at scattered locations throughout the state each year.

Adapted from: Climatography of the United States, No. 60, National Climatic Center

Windrose Data for Tennessee



30 Yrs 1980 to 2009



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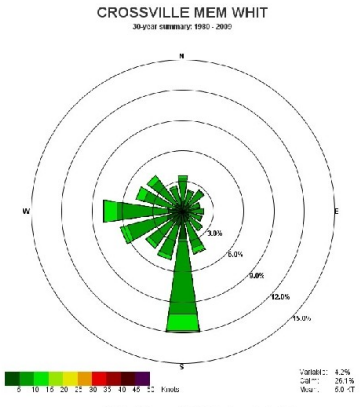

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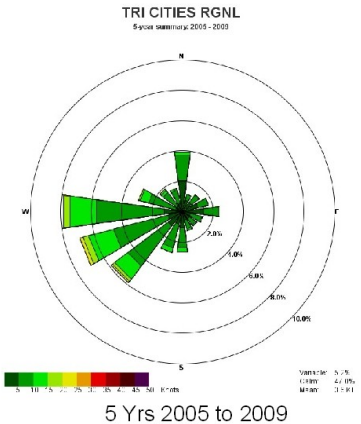

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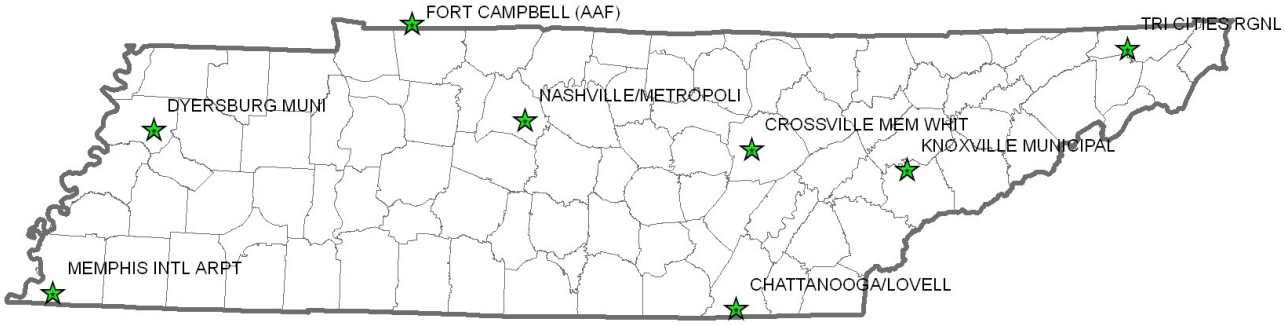

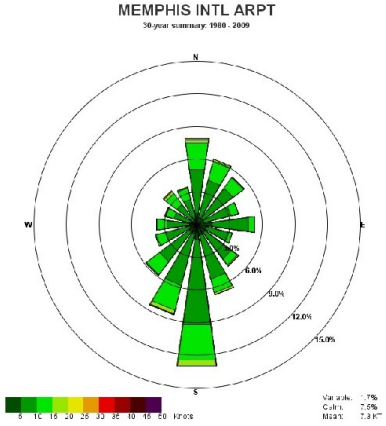

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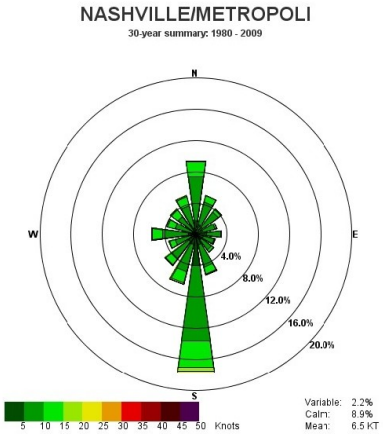

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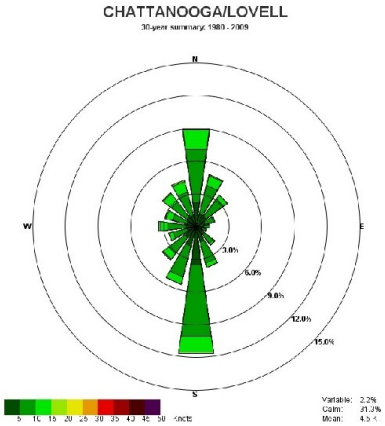
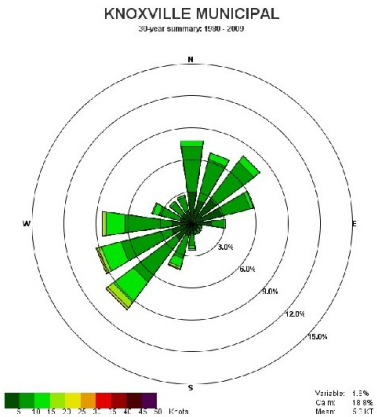


30 Yrs 1980 to 2009

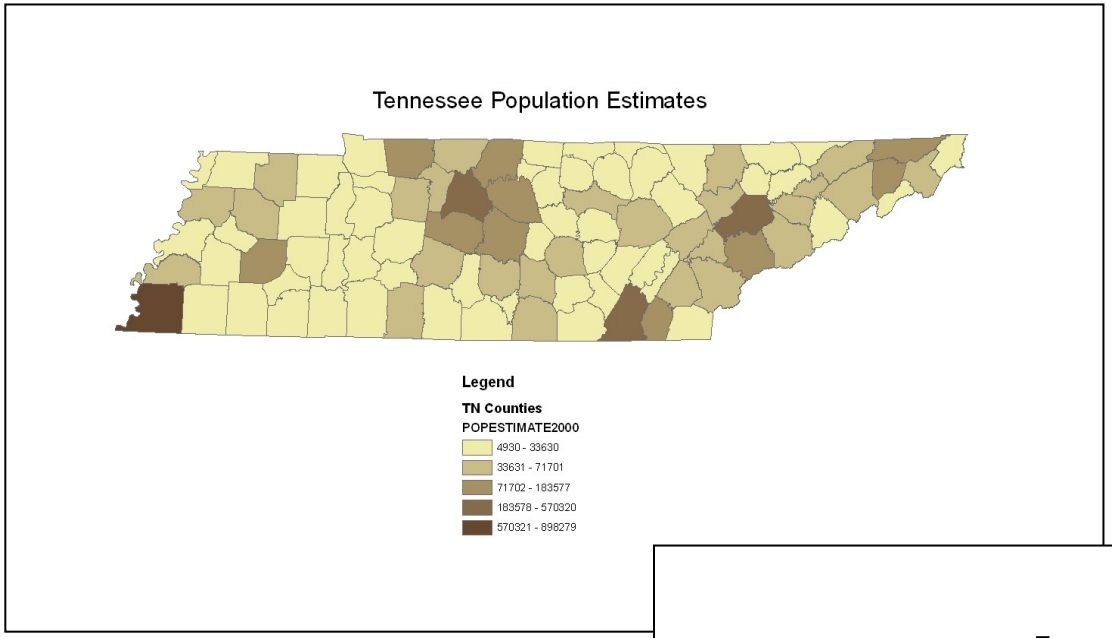


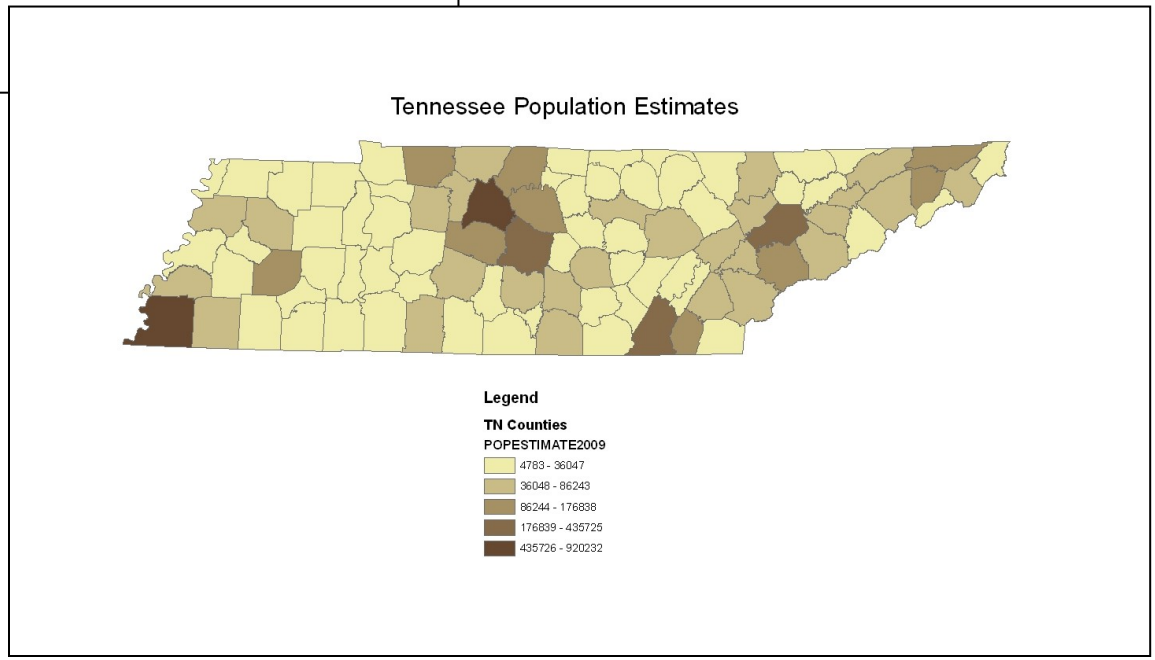
30 Yrs 1980 to 2009

Tennessee Metropolitan and Micropolitan Statistical Areas and Population Data (2000 Census and Estimates to 2009 by US Census Bureau)

Table 1. Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas: April 1, 2000 to July 1, 2009													
CBSA Code	Geographic area	Population estimates										April 1, 2000	
		July 1, 2009	July 1, 2008	July 1, 2007	July 1, 2006	July 1, 2005	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	Estimates base	Census
	Metropolitan statistical areas												
16860	Chattanooga, TN-GA	524,303	520,089	515,810	510,542	502,842	497,235	492,354	487,718	482,729	477,213	476,502	476,531
17300	Clarksville, TN-KY	268,546	261,757	262,170	252,809	251,845	244,887	241,527	238,210	235,713	232,719	232,045	232,000
17420	Cleveland, TN	113,358	112,414	111,223	109,584	108,013	106,939	106,056	105,564	105,077	104,307	104,015	104,015
27180	Jackson, TN	113,629	113,008	112,694	112,160	110,772	110,001	109,259	109,340	108,817	107,581	107,379	107,377
27740	Johnson City, TN	197,381	195,783	193,357	191,544	188,888	187,178	186,119	183,736	182,085	181,989	181,607	181,607
28700	Kingsport-Bristol-Bristol, TN-VA	305,629	304,679	303,577	301,615	300,078	298,765	298,939	298,432	298,222	298,438	298,486	298,484
28940	Knoxville, TN	699,247	692,210	682,143	671,227	658,316	648,530	641,551	632,944	625,319	617,573	616,077	616,079
32820	Memphis, TN-MS-AR	1,304,926	1,298,529	1,290,610	1,280,666	1,261,429	1,249,048	1,238,075	1,226,669	1,216,654	1,208,269	1,205,196	1,205,204
34100	Morristown, TN	137,612	136,579	134,979	132,542	130,104	128,254	126,853	125,209	124,775	123,564	123,081	123,081
34980	Nashville-Davidson--Murfreesboro--Fra	1,582,264	1,556,368	1,524,920	1,489,156	1,450,538	1,416,452	1,386,743	1,363,834	1,343,263	1,317,580	1,311,789	1,311,789
	Micropolitan statistical areas												
11940	Athens, TN	52,739	52,574	52,115	51,753	51,092	50,498	50,278	50,052	49,786	49,171	49,010	49,015
15140	Brownsville, TN	18,881	19,030	19,165	19,299	19,402	19,590	19,472	19,547	19,844	19,819	19,797	19,797
17940	Columbia, TN	84,302	82,727	80,420	77,860	75,639	74,235	72,754	71,265	70,161	69,694	69,498	69,498
18260	Cookeville, TN	104,366	103,224	101,726	100,393	98,543	97,464	96,175	95,507	94,524	93,708	93,415	93,417
18900	Crossville, TN	54,109	53,765	53,264	52,263	50,859	49,888	49,090	48,597	47,694	47,024	46,801	46,802
20540	Dyersburg, TN	37,811	37,722	37,680	37,689	37,586	37,291	37,161	37,068	37,108	37,320	37,279	37,279
24620	Greeneville, TN	66,282	66,090	65,855	65,391	64,874	64,159	63,665	63,426	63,272	63,035	62,909	62,909
25340	Harriman, TN	53,508	53,473	53,309	53,084	52,556	52,624	52,404	52,094	52,044	51,939	51,911	51,910
26480	Humboldt, TN	49,468	49,148	48,435	48,022	47,856	47,792	47,690	47,908	47,999	48,154	48,149	48,152
29220	La Follette, TN	40,970	40,781	40,562	40,505	40,412	40,387	39,960	39,839	39,805	39,861	39,794	39,854
29980	Lawrenceburg, TN	41,314	41,060	40,884	40,595	40,641	40,484	40,464	40,492	39,993	39,961	39,924	39,926
30280	Lewisburg, TN	30,279	30,015	29,382	28,716	28,093	27,776	27,427	27,291	27,132	26,880	26,774	26,767
32280	Martin, TN	33,459	33,379	33,231	33,336	33,542	33,544	33,944	34,208	34,351	34,894	34,895	34,895
32660	McMinnville, TN	40,481	40,162	39,910	39,652	39,372	39,184	39,072	38,691	38,682	38,404	38,276	38,276
35460	Newport, TN	36,047	35,804	35,393	35,079	34,708	34,455	34,287	33,982	33,670	33,630	33,568	33,565
37540	Paris, TN	31,876	31,751	31,517	31,399	31,294	31,077	31,052	31,258	31,169	31,122	31,103	31,115
42940	Sevierville, TN	86,243	85,361	83,952	82,075	79,607	77,311	75,636	74,398	73,218	71,701	71,170	71,170
43180	Shelbyville, TN	45,947	45,384	44,531	43,444	42,147	40,981	40,002	39,185	38,538	37,822	37,586	37,586
46100	Tullahoma, TN	99,927	99,476	98,972	98,273	97,148	96,207	95,494	94,888	93,971	93,286	93,026	93,024
46460	Union City, TN-KY	38,245	38,523	38,437	38,485	38,949	39,366	39,586	39,798	40,058	40,184	40,202	40,202
Source:	http://www.census.gov/popest/metro/CBSA-est2009-annual.html Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas: April 1, 2000 to July 1, 2009 (CBSA-EST2009-01)												

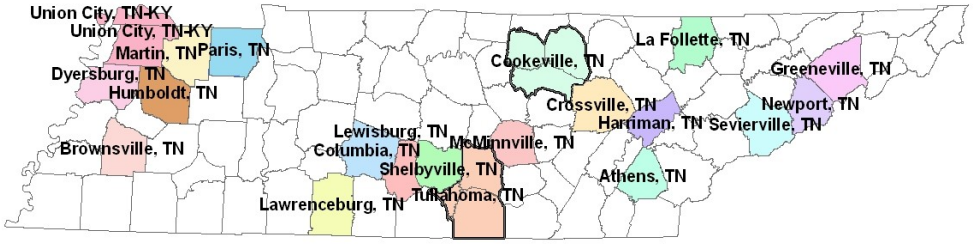
Tennessee County Population Density





MSA/CBSA Tennessee December 2003 Updated Areas USCB

Micropolitan Areas Tennessee December 2003 Updated Areas USCB



The Purpose of Tennessee's Ambient Air Monitoring Network

There are several criteria that are used for determining the need for ambient air quality monitoring. Some of the criteria are as follows:

EPA National Ambient Air Quality Standards (NAAQS) Criteria pollutant monitoring network requirements for the NCore (National Core) formally NAMS (National Air Monitoring Site), SLAMS (State and Local Air Monitoring Site) and SPM (Special Purpose Monitoring) monitoring networks.

The Code of Federal Regulations (CFR) sets forth as regulations the requirements for air quality monitoring to be implemented by the states and EPA. These requirements are primarily organized around population and emission density in a given area with the number of required monitors and the distribution of the monitors within the networks specified by these regulations. Additionally 40CFR, Part 58, Appendix D specifies criteria that must be followed in designing the NCore and SLAMS networks. The EPA must approve design and/or modifications to these networks.

Additional federal regulations also specify requirements for Prevention of Significant Deterioration (PSD) monitoring networks. This monitoring is addressed at new facilities to be constructed in a given area or around certain types of existing industry such as large coal fired power plants or facilities that release toxic heavy metals such as lead to the environment.

Air quality monitoring is required to be conducted to alert citizens in given areas to elevated levels of air pollutants in cities or communities of designated population levels that are required to provide Air Quality Index (AQI) reports to the general public.

Air quality monitoring is conducted to address the need for background air quality data and to provide needed air quality data that is used in industrial recruitment efforts with the monitoring areas periodically rotated to new locations throughout the state on a routine basis.

Special air quality monitoring studies are conducted based on identified needs for monitoring data in a given area.

Citizen complaints and enforcement investigations related to air quality are other reasons for air quality monitoring usually in or around a specific area related to the complaint or investigation.

Requests from citizens for special air monitoring studies are also a reason for air monitoring activities.

The federal regulations also specify the frequency, method, location requirements, equipment, quality assurance procedures and reporting of data collected from the ambient air monitoring networks.

Ozone monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

TABLE D–2 OF APPENDIX D TO PART 58.— SLAMS MINIMUM O3 MONITORING REQUIREMENTS

MSA population[1, 2]	Most recent 3-year design value concentrations ≥85% of any O3 NAAQS[3]	Most recent 3-year design value concentrations <85% of any O3 NAAQS[3,4]
>10 million	4	2
4–10 million	3	1
350,000–<4 million	2	1
50,000–<350,000 [5]	1	0

1 Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).
2 Population based on latest available census figures.
3 The ozone (O3) National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.
4 These minimum monitoring requirements apply in the absence of a design value.
5 Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

Note: The NAAQS for ozone was revised by EPA March 12, 2008 to 0.075 PPM. There were no regulatory changes made to the network monitoring requirements at that time.

On January 6, 2010 EPA proposed strengthening the 8-hour "primary" ozone standard, to a level within the range of 0.060-0.070 parts per million (ppm). EPA also proposed to establish a distinct cumulative, seasonal "secondary" standard within the range of 7-15 ppm-hours. EPA proposed in July 2009 to modify the ozone air quality monitoring network design requirements for urban areas with populations between 50,000 and 350,000 people operate at least one ozone monitor and that states be required to operate at least three ozone monitors in non-urban areas. However, these regulations have not yet been finalized by the EPA. When the rules become final Tennessee will redesign its ozone monitoring network in accordance with the regulations.

PM 2.5 monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

TABLE D–5 OF APPENDIX D TO PART 58. PM2.5 MINIMUM MONITORING REQUIREMENTS

MSA population[1, 2]	Most recent 3-year design value concentrations ≥85% of any $PM_{2.5}$ NAAQS[3]	Most recent 3-year design value concentrations <85% of any $PM_{2.5}$ NAAQS[3,4]	Continuous PM2.5 Monitoring	PM2.5 Background and Transport Sites	PM2.5 Chemical Speciation Sites
>1,000,000	3	2	1 - 2	One site each per state for background and transport.	Existing STN Required Site(s)
500,000–1,000,000	2	1	1		
50,000–<500,000 [5]	1	0	0 - 1		

1 Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).
2 Population based on latest available census figures.
3 The PM2.5 National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.
4 These minimum monitoring requirements apply in the absence of a design value.
5 Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

4.7.2 Requirement for Continuous PM2.5 Monitoring. The State, or where appropriate, local agencies must operate continuous PM2.5 analyzers equal to at least one-half (round up) 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 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. State and local air monitoring agencies must use methodologies and quality assurance/quality control (QA/QC) procedures approved by the EPA Regional Administrator for these required continuous analyzers.

4.7.3 Requirement for PM2.5 Background and Transport Sites. Each State shall install and operate at least one PM2.5 site to monitor for regional background and at least one PM2.5 site to monitor regional transport.

4.7.4 PM2.5 Chemical Speciation Site Requirements. Each State shall continue to conduct chemical speciation monitoring and analyses at sites designated to be part of the PM2.5 Speciation Trends Network (STN). The selection and modification of these STN sites must be approved by the Administrator.

PM 10 monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

TABLE D–4 OF APPENDIX D TO PART 58. PM10 MINIMUM MONITORING REQUIREMENTS (NUMBER OF STATIONS PER MSA) 1

Population category	High concentration[2]	Medium concentration[3]	Low concentration[4,5]
>1,000,000	6–10	4–8	2–4
500,000–1,000,000	4–8	2–4	1–2
250,000–500,000	3–4	1–2	0–1
100,000–250,000	1–2	0–1	0

1 Selection of urban areas and actual numbers of stations per area within the ranges shown in this table will be jointly determined by EPA and the State Agency.
2 High concentration areas are those for which ambient PM10 data show ambient concentrations exceeding the PM10 NAAQS by 20 percent or more.
3 Medium concentration areas are those for which ambient PM10 data show ambient concentrations exceeding 80 percent of the PM10 NAAQS.
4 Low concentration areas are those for which ambient PM10 data show ambient concentrations less than 80 percent of the PM10 NAAQS.
5 These minimum monitoring requirements apply in the absence of a design value.

SO2 monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

4.4 Sulfur Dioxide (SO2) Design Criteria.

(a) There are no minimum requirements for the number of SO2 monitoring sites. Continued operation of existing SLAMS SO2 sites using FRM or FEM is required until discontinuation is approved by the EPA Regional Administrator. Where SLAMS SO2 monitoring is ongoing, at least one of the SLAMS SO2 sites must be a maximum concentration site for that specific area.

EPA announced on 11/16/2009 proposals to revise the annual and 24 hour primary NAAQS and replace both with a new 1-hour SO2 standard. The existing secondary standard is under review. Additional SO2 monitoring sites are expected to be added to existing monitoring networks to increase the number of monitors in the Core Based Statistical Areas. Increased monitoring would also be required in states based on their contribution to national SO2 emissions and additional monitoring may be required in areas where gaps exist in network coverage. The new monitors would be required to be operational by 2013 if the EPA proposal is adopted in its current form.

NO2 monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

4.3 Nitrogen Dioxide (NO2) Design Criteria.

(a) There are no minimum requirements for the number of NO2 monitoring sites. Continued operation of existing SLAMS NO2 sites using FRM or FEM is required until discontinuation is approved by the EPA Regional Administrator. Where SLAMS NO2 monitoring is ongoing, at least one NO2 site in the area must be located to measure the maximum concentration of NO2.

EPA announced on January 22, 2010 the final revisions to the NO2 NAAQS. EPA added a new Primary1-hour NO2 standard at 100 ppb (parts per billion). EPA chose to retain the current Primary and Secondary standards and to revise the AQI for NO2 to incorporate the new 1-hour standard. EPA also revised the monitoring requirements and will now require monitoring near roads in areas with populations greater than 500,000. Additional monitors will be required in urban areas near major roads with populations greater than or equal to 1,000,000 to assess community wide concentrations and an additional monitor for areas with populations greater than or equal to 2,500,000 also near roads or having road segments with annual average vehicle daily traffic counts greater than or equal to 250,000 vehicles. Additional monitors will also be required to be placed in areas with vulnerable populations susceptible to NO2 health related effects. These additional monitors would be required to be operational before January 1, 2013 if the EPA proposal is adopted in its current form.

Lead monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

4.5 Lead (Pb) Design Criteria. *Lead (Pb) Design Criteria.*

(a) State and, where appropriate, local agencies are required to conduct ambient air Pb monitoring taking into account Pb sources which are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS, the potential for population exposure, and logistics. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each Pb source which emits 1.0 or more tons per year based on either the most recent National Emission Inventory (*http://www.epa.gov/ttn/chief/ eiinformation.html*) or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data) taking into account logistics and the potential for population exposure.

(i) One monitor may be used to meet the requirement in paragraph 4.5(a) for all sources involved when the location of the maximum Pb concentration due to one Pb source is expected to also be impacted by Pb emissions from a nearby source (or multiple sources). This monitor must be sited, taking into account logistics and the potential for population exposure, where the Pb concentration from all sources combined is expected to be at its maximum.

(ii) The Regional Administrator may waive the requirement in paragraph 4.5(a) for monitoring near Pb sources if the State or, where appropriate, local agency can demonstrate the Pb source will not contribute to a maximum Pb concentration in ambient air in excess of 50% of the NAAQS (based on historical monitoring data, modeling, or other means). The waiver must be renewed once every 5 years as part of the network assessment required under 58.10(d).

(b) State and, where appropriate, local agencies are required to conduct Pb monitoring in each CBSA with a population equal to or greater than 500,000 people as determined by the latest available census figures. At a minimum, there must be one non-source-oriented SLAMS site located to measure neighborhood scale Pb concentrations in urban areas impacted by re-entrained dust from roadways, closed industrial sources which previously were significant sources of Pb, hazardous waste sites, construction and demolition projects, or other fugitive dust sources of Pb.

EPA announced on October 15, 2008 the final revisions to the Lead NAAQS. EPA added a new Primary standard of 0.15 ug/m3 as a running 3 month average. The initial number of lead monitors to be added to the network was to be based on source emissions of 1 or more tons of lead. EPA is reconsidering the initial 1 ton threshold and instead is considering areas with sources emitting 0.5 tons as triggering the source oriented monitoring requirements. Tennessee has already identified an area not meeting the new standard and has

implemented monitoring at the source. Additional evaluations are underway to identify all 0.5 ton sources for potential monitoring.

CO monitoring network requirements

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

4.2 Carbon Monoxide (CO) Design Criteria.

(a) There are no minimum requirements for the number of CO monitoring sites. Continued operation of existing SLAMS CO sites using FRM or FEM is required until discontinuation is approved by the EPA Regional Administrator. Where SLAMS CO monitoring is ongoing, at least one site must be a maximum concentration site for that area under investigation.

Index reporting requirements

40 CFR 58 Subpart F, 58.50 Revised as of July 1, 2009

§ 58.50 Index reporting.

(a) The State or where applicable, local agency shall report to the general public on a daily basis through prominent notice an air quality index that complies with the requirements of appendix G to this part.
(b) Reporting is required for all individual MSA with a population exceeding 350,000.
(c) The population of a MSA for purposes of index reporting is the most recent decennial U.S. census population.

Geographic area	2000 Census	Required to Have AQI Reporting	Daily AQI/Air Quality Forecasts Provided
Chattanooga, TN-GA	476,531	Yes	Yes
Clarksville, TN-KY	232,000	No	Yes
Cleveland, TN	104,015	No	No
Jackson, TN	107,377	No	No
Johnson City, TN	181,607	No	Yes Based on the combined population of both areas.
Kingsport-Bristol-Bristol, TN-VA	298,484	No	
Knoxville, TN	616,079	Yes	Yes In addition, the GSMNP has a separate AQI/Forecast provided.
Memphis, TN-MS-AR	1,205,204	Yes	Yes
Morristown, TN	123,081	No	No
Nashville-Davidson--Murfreesboro, TN	1,311,789	Yes	Yes

NCore monitoring network requirements and PM 10-2.5

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

3. Design Criteria for NCore Sites

(a) Each State (i.e. the fifty States, District of Columbia, Puerto Rico, and the Virgin Islands) is required to operate at least one NCore site. States may delegate this requirement to a local agency. States with many MSAs often also have multiple air sheds with unique characteristics and, often, elevated air pollution. These States include, at a minimum, California, Florida, Illinois, Michigan, New York, North Carolina, Ohio, Pennsylvania, and Texas. These States are required to identify one to two additional NCore sites in order to account for their unique situations. These additional sites shall be located to avoid proximity to large emission sources. Any State or local agency can propose additional candidate NCore sites or modifications to these requirements for approval by the Administrator. The Ncore locations should be leveraged with other multipollutant air monitoring sites including PAMS sites, National Air Toxics Trends Stations (NATTS) sites, CASTNET sites,

and STN sites. Site leveraging includes using the same monitoring platform and equipment to meet the objectives of the variety of programs where possible and advantageous.

(b) The NCore sites must measure, at a minimum, PM2.5 particle mass using continuous and integrated/filter-based samplers, speciated PM2.5, PM10–2.5 particle mass, speciated PM10–2.5, O3, SO2, CO, NO/NOy, wind speed, wind direction, relative humidity, and ambient temperature.

(1) Although the measurement of NOy is required in support of a number of monitoring objectives, available commercial instruments may indicate little difference in their measurement of NOy compared to the conventional measurement of NOX, particularly in areas with relatively fresh sources of nitrogen emissions. Therefore, in areas with negligible expected difference between NOy and NOX measured concentrations, the Administrator may allow for waivers that permit NOX monitoring to be substituted for the required NOy monitoring at applicable NCore sites.

(2) EPA recognizes that, in some cases, the physical location of the NCore site may not be suitable for representative meteorological measurements due to the site's physical surroundings. It is also possible that nearby meteorological measurements may be able to fulfill this data need. In these cases, the requirement for meteorological monitoring can be waived by the Administrator.

(c) In addition to the continuous measurements listed above, 10 of the Ncore locations must also measure lead (Pb) either at the same sites or elsewhere within the MSA/CSA boundary. These ten Pb sites are included within the NCore networks because they are intended to be long-term in operation, and not impacted directly from a single Pb source. These locations for Pb monitoring must be located in the most populated MSA/CSA in each of the 10 EPA Regions. Alternatively, it is also acceptable to use the Pb concentration data provided at urban air toxics sites. In approving any substitutions, the Administrator must consider whether these alternative sites are suitable for collecting long-term lead trends data for the broader area.

40 CFR 58 Subpart G, Appendix D to Part 58 Revised as of July 1, 2009

4.8.1 General Monitoring Requirements.

(a) The only required monitors for PM10-2.5 are those required at NCore Stations.

Tennessee's primary NCore site will be located in Memphis, Tennessee. See the following pages for details on the proposed location of the site.

In addition to the Memphis NCore site, the EPA is considering the designation of the LookRock air monitoring station in the Great Smoky Mountains National Park as an NCore rural-type site. This site is operated in cooperation with the National Park Service, Tennessee Valley Authority, and the State of Tennessee. The following pages identify the Memphis NCore site and the Look Rock NCore equivalent-type site.

Ambient Air Monitoring Work Plan
For
National Core (NCore) Monitoring Station

Memphis, TN-MS-AR MSA

Memphis and Shelby County Health Dept. Air Pollution Control
814 Jefferson Avenue
Memphis, TN 38105

Public Health
Prevent. Promote. Protect.
Memphis and Shelby County Health Department

National Core (NCore) Multi-pollutant Monitoring Stations

In 2006, the U.S. Environmental Protection Agency (EPA) amended its national air quality monitoring requirements. The changes will help EPA, states, tribes and local air quality agencies improve public health protection and better inform the public about air quality in their communities. EPA and the states will add about 75 multi-pollutant monitoring stations around the country, as part of a National Core (NCore) network. Memphis and Shelby County has been selected as an NCore site location. With this selection, the Memphis and Shelby County Health Department (MSCHD) is faced with the unique challenge of finding a suitable site, which would meet EPA's siting criteria.

Under the new requirements, air quality regulators will be able to take advantage of improvements in monitoring technologies. The changes will affect monitoring for six common pollutants known as "criteria pollutants" and their precursors. The six pollutants are: ground-level ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particle pollution (also called particulate matter) and lead. EPA's siting criteria for NCore monitoring networks ensure that monitors are concentrated in areas with air quality problems, where monitoring is most critical. Monitoring multiple pollutants at the same site will help EPA improve air quality management by enhancing the Agency's ability to model and forecast air pollution. The sites also will provide real-time data for some pollutants, including particle pollution and ground- level ozone.

By requiring that these monitors be co-located, EPA will have the ability to examine the effects of multiple air pollutants on health and the environment.

Siting

The NCore sites placement (siting) criteria is extensive, requiring certain distances from interstates and major roadways. It is the opinion of the MSCHD that no existing air monitoring site will meet siting requirements. The proposed Haley Road site is located on property owned by Shelby County Government and is located within the Memphis city limits. This location should meet all the criteria established by EPA. The site is located in Shelby Farms, area 10, adjacent to the Shelby County gas station on Haley road.

The coordinates are:

Latitude	35.15159 N
Longitude	89.85022 W
Elevation	287 ft.

The "NCore Readiness Self-Assessment" forms along with photographs in 8 cardinal directions have been submitted to EPA.

Official EPA approval was granted on August 26, 2009. Since this will not be an existing site, greater monitoring resources will be needed toward new capital purchases (site preparations, new building, new monitors, etc.) and costs cannot be covered through divestment-reinvestments of resources alone.

Monitoring Objective

Determine compliance with NAAQS; observe pollution trends for national data analysis, provide pollution levels for daily index reporting; and provide data for scientific studies.

Monitors

Monitor Type	Designation	Analysis Method	Frequency of Sampling
ARM Carbon Monoxide (CO)	NCore	Automated Reference Method utilizing trace level non-dispersive infrared analysis.	Continuously
ARM Ozone (O_3)	NCore/AQI	Automated Equivalent Method utilizing UV photometry analysis.	Continuously
ARM Sulfur Dioxide (SO_2)	NCore	Automated Equivalent Method utilizing trace level UV fluorescence analysis	Continuously
FRM $PM_{2.5}$	NCore	Manual Reference Method utilizing gravimetric analysis.	1/3 days
$PM_{2.5}$ TEOM	NCore/AQI	Automated Equivalent Method* utilizing Tapered Element Oscillating Microbalance/gravimetric analysis	Continuously
$PM_{2.5}$ Speciation	NCore	Multi-species manual collection method utilizing thermal optical, ion chromatography, gravimetric, and X-ray fluorescence analyses.	1/6 days
Total Reactive Nitrogen (NO_y)	NCore	Automated trace level chemiluminescence analysis.	Continuously
Meteorological	NCore	Air quality measurements approved instrumentation for wind speed, wind direction, relative humidity, and temperature.	Continuously
Lead	NCore	Manual Reference Method TSP or Manual Reference Method PM_{10}	1/6

* Pending

Quality Assurance

All Quality Assurance procedures shall be implemented in accordance with 40 CFR 58, Appendix A. The MSCHD's current Quality Assurance Project Plan covers $PM_{2.5}$, Ozone, NOx, Speciation, and meteorological measurements. For the trace level instruments, a Quality Assurance Project Plan will be developed and submitted prior to use of the trace level instruments and SOPs will be developed for each new instrument used in the project. NCore QAPPs are due July 1, 2010.

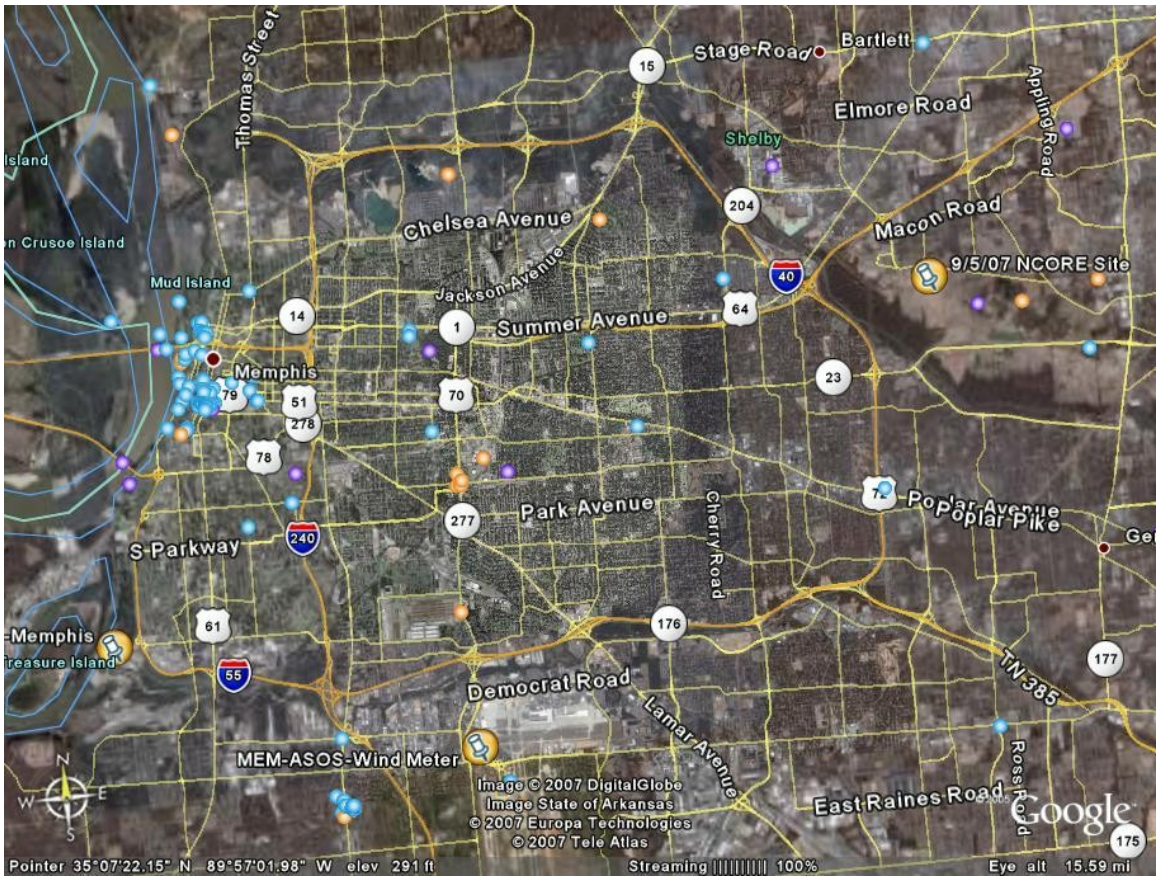
Area of Representativeness

40 CFR Part 58 Appendix D provides design criteria for ambient air monitoring. The monitoring objective for the NCore site is to produce data that represents a fairly large area and therefore the spatial scale of the site is important. The spatial scale defines the physical dimensions of the air parcel nearest to a monitoring site throughout which actual pollutant concentrations are reasonably similar. It is determined by the characteristics of the area surrounding the air monitoring site and the site's distance from nearby air pollution sources such as roadways, factories, etc. In the case of urban NCore the spatial scales to be used are neighborhood and urban. Table 2 shows the area of representativeness for each pollutant for the Haley Road site.

Spatial Scales for Each Pollutant

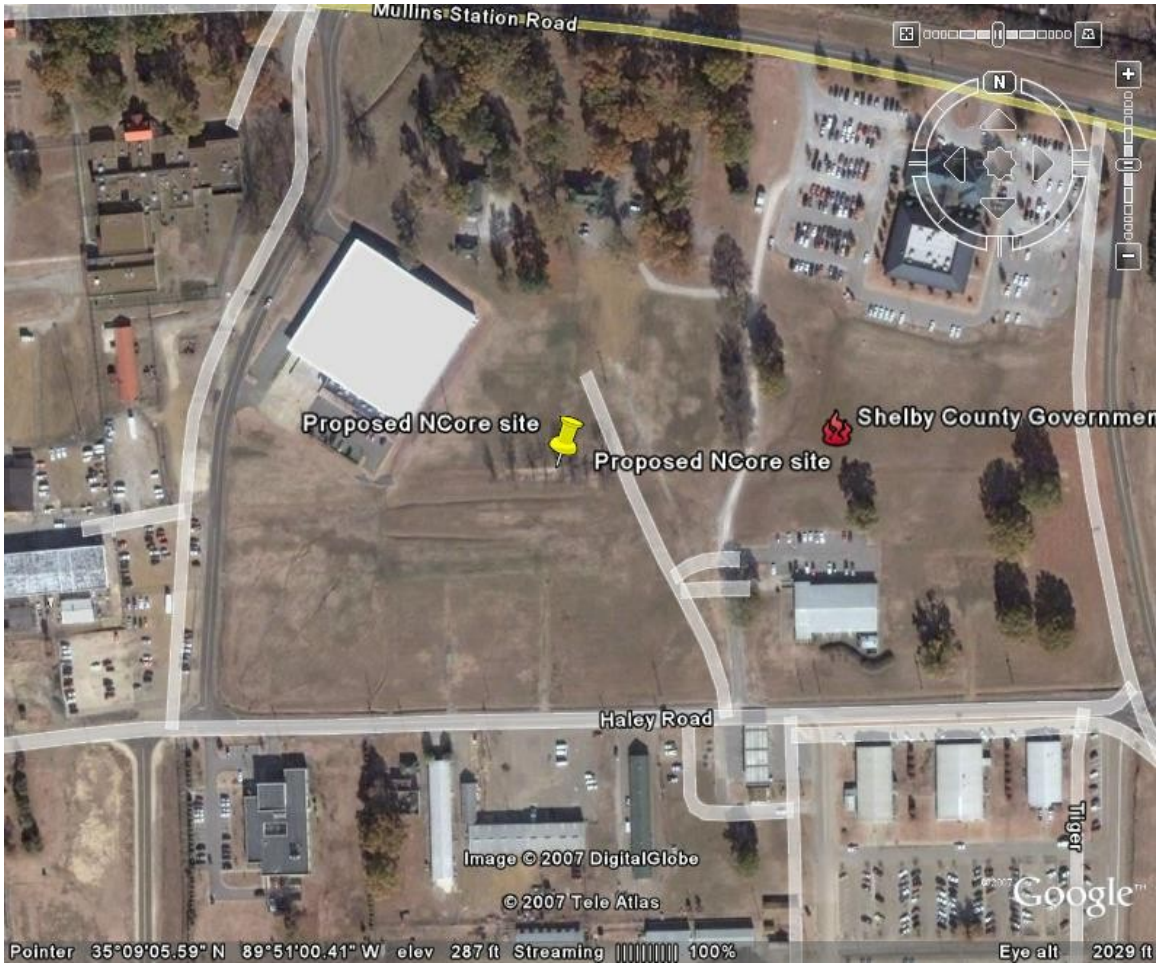
Pollutant	Spatial Scale	Comments
Ozone	Neighborhood and Urban Scale	
NO_x	Neighborhood and Urban Scale	
Carbon Monoxide	Neighborhood Scale	There is no Urban scale for CO
SO_2	Neighborhood Scale	There is no Urban scale for SO_2
$PM_{10}/PM_{2.5}$/Lead	Urban	

The placement of the NCore site east of the urban core provides the best location for measuring transport and secondary pollutant formation from that area. And, the placement of the Haley Road site downwind of the more industrialized areas compliments the existing network, which is primarily designed to measure maximum concentration on a neighborhood scale.

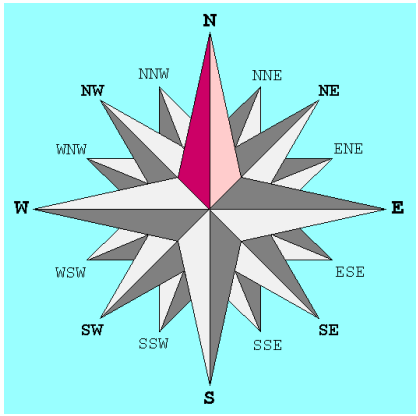


As can be seen from the citywide view above, the proposed NCore site is located East of the urban core and North East of the heavier industrialized areas of the metro area.

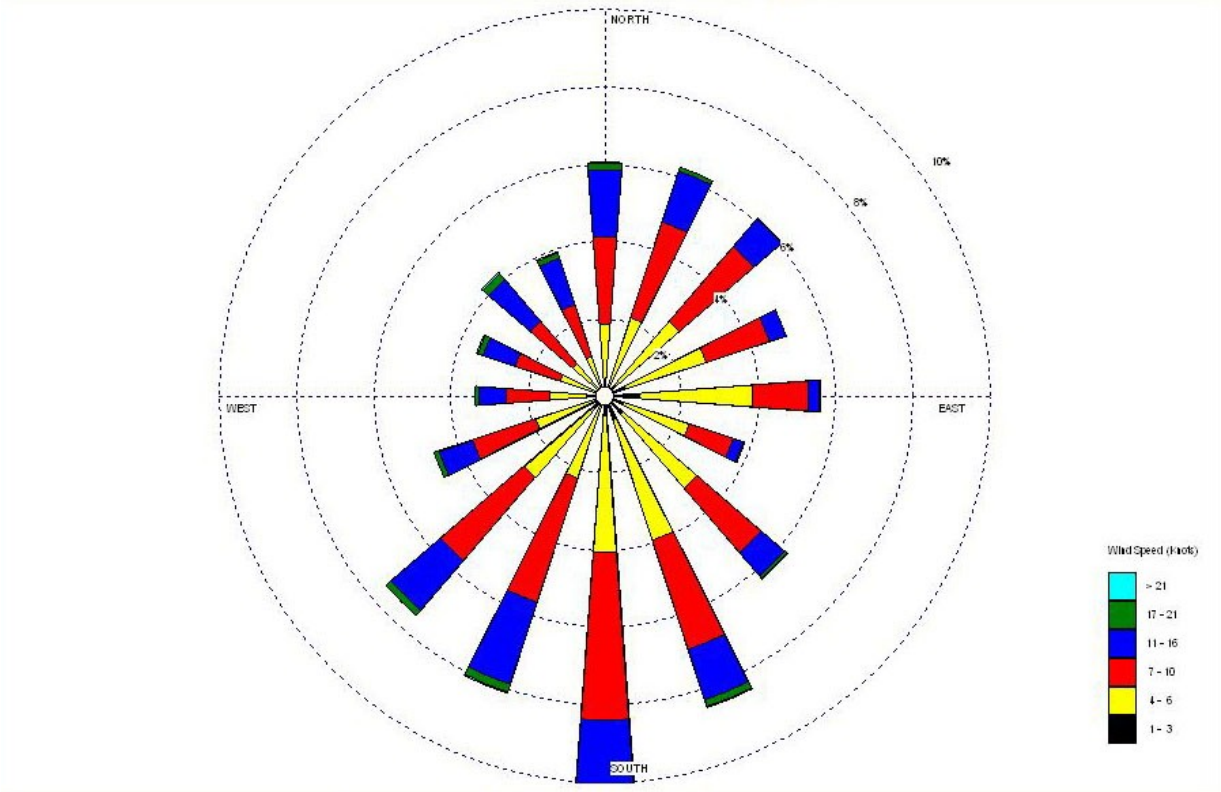
Proposed Haley Road Site



8 Cardinal Directions



Wind Rose for Memphis, TN-MS-AR MSA


NORTH
EAST
SOUTH
WEST
10%
8%
6%
4%
2%
Wind Speed (knots)
> 21
17 - 21
11 - 16
7 - 10
4 - 6
1 - 3

MEMPHIS AND SHELBY COUNTY
HEALTH DEPARTMENT

YVONNE S. MADLOCK
DIRECTOR

KENNETH ROBINSON, M.D.
SHELBY COUNTY HEALTH OFFICER

A.C. WHARTON
CITY OF MEMPHIS
MAYOR

JOE FORD
SHELBY COUNTY
INTERIM MAYOR

February 10, 2010

Mr. Jackie L. Waynick
State Of Tennessee
Department Of Environment and Conservation
Division Of Air Pollution Control
9th Floor, L & C Annex, 401 Church Street
Nashville, TN. 37243-1531

Dear Mr. Waynick:

An assessment of the Memphis and Shelby County Health Department's ambient air monitoring network has been conducted. The MSCHD Air Monitoring Branch anticipates few changes from the previous network assessment.

- The USEPA officially granted approval on August 26, 2009, of the site location for the proposed NCore monitoring station. The site is located in the Shelby Farms area of Memphis, on Haley Road. Once funding has been secured, site preparations will begin. The site must be operational by January 1, 2011.

- The current lead NAAQS requires identifying sources of lead emissions of one ton per year or greater. The emissions inventory indicate that there are no sources with emissions of one ton or greater. The only source with the potential to emit greater than one ton of Pb would be the Precor plant. But, they are not expected to exceed the one ton threshold. Consequently, the MSCHD has been granted an exemption by EPA from lead source sampling. However, Lead monitoring will be a component of the future NCore site.

- The MSCHD began air toxics monitoring at Riverview Elementary School (47-157-0010) on June 5, 2008. The grant commitment has been fulfilled and the last sample was collected on December 21, 2009. This site is not currently active.

No other changes are anticipated for the Memphis and Shelby County air monitoring network for 2010.

Sincerely,

Edward C. Cain, Supervisor
Pollution Control
Air Monitoring Branch

814 JEFFERSON AVENUE • MEMPHIS, TENNESSEE 38105
PHONE 901-544-7600

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 2 6 2009

MEMORANDUM

SUBJECT: Environmental Protection Agency (EPA) Region 4 Recommendation on 2009 Tennessee National Core (NCore) Multi-pollutant Monitoring Plan

FROM: Doug Neeley, Chief
Air Toxic and Monitoring Branch

TO: Lewis Weinstock
Air Quality Assessment Division (C304-06)
EPA Office of Air Quality Planning and Standards

This memorandum transmits our recommendation on the 2009 Tennessee NCore plan, submitted to our office on June 29, 2009. This NCore plan is required by the final rule for the national ambient air monitoring regulations, published in the Federal Register (FR) on October 17, 2006 (FR Volume 71, Number 200, Pages 61236-61328). Specifically, Section 3 of 40 Code of Federal Regulations (CFR) part 58, appendix D, describes the required design criteria for NCore sites (pages 61317-61318 of the FR notice). Per 40 CFR part 58.11(c), the NCore network design and changes are subject to the approval of the Administrator, which we understand has now been delegated to the Office of Air Quality Planning and Standards.

We have completed our review of the State's 2009 NCore plan, including a completed NCore Readiness Self-Assessment checklist, and are pleased to recommend approval of this plan. The proposed NCore site, known as the Shelby Farms site (AQS# 47-157-0030) was visited by EPA Region 4 staff in September 2007 and currently meets siting criteria.

We appreciate working with you on EPA Region 4 NCore issues and look forward to receiving a copy of your letter to the State of Tennessee transmitting the results of your review of the 2009 Tennessee NCore plan. If you have any questions on our recommendation, please contact Ms. Artra Cooper of my staff at (404) 562-9047.

cc: David Shelow (OAQPS)
Jackie Waynick (TDAPC)
Ed Cain (MSHD)
Van Shrieves (ATMB)

NCore Look Rock Monitoring Site

Air quality monitoring at the Look Rock monitoring site has a long history dating at least back to about 1980 . Monitoring at this site has been a joint effort of the National Park Service (NPS) Tennessee Valley Authority (TVA) and the State of Tennessee.

Siting

The coordinates are:

Latitude + 35.6334N
Longitude -83.9416W
Elevation 801 Meters.

Site is under consideration by the EPA as a rural NCore site.

Monitoring Objective

Determine compliance with NAAQS; observe pollution trends for national data analysis, provide pollution levels for daily index reporting; and provide data for scientific studies.

Current Monitoring At Look Rock

Parameter	Start	End	Years	Seasons	Period	Interval	Instrument	Operating Agency	Network
Deposition Monitoring									
Stacked Filter Pack	10/1/1998	present	11.4	-	year-round	Weekly	Sampler	NPS	CASTNET
Gaseous Monitoring									
Ozone	7/23/1988	present	21.6	-	year-round	1-hour average	Analyzer	NPS	CASTNET
Meteorology Monitoring									
Delta Temperature	10/15/1998	present	11.3	-	year-round	1-hour average	Sensor	NPS	CASTNET
Relative Humidity	1/1/1989	present	21.1	-	year-round	1-hour average	Sensor	NPS	CASTNET
Relative Humidity	4/28/1993	present	16.8	-	year-round	1-hour average	Sensor	NPS	IMPROVE
Precipitation	7/1/1988	present	21.6	-	year-round	1-hour average	Sensor	NPS	CASTNET
Standard Deviation for Wind Direction	1/16/1996	present	14.1	-	year-round	1-hour average	Sensor	NPS	CASTNET
Solar Radiation	7/1/1988	present	21.6	-	year-round	1-hour average	Sensor	NPS	CASTNET
Scalar Wind Speed	4/28/1993	present	16.8	-	year-round	1-hour average	Sensor	NPS	CASTNET
Ambient Temperature (aspirated)	7/1/1988	present	21.6	-	year-round	1-hour average	Sensor	NPS	CASTNET
Ambient Temperature (aspirated)	4/28/1993	present	16.8	-	year-round	1-hour average	Sensor	NPS	IMPROVE
Vector Wind Direction	4/28/1993	present	16.8	-	year-round	1-hour average	Sensor	NPS	CASTNET
Vector Wind Speed	4/28/1993	present	16.8	-	year-round	1-hour average	Sensor	NPS	CASTNET
Wetness Sensor	10/15/1998	present	11.3	-	year-round	1-hour average	Sensor	NPS	CASTNET
Particulate Monitoring									
Particulate Matter less than 2.5 microns	5/1/2002	present	7.8	-	year-round	1-hour average	TEOM	NPS	NPS-WEBCAMS
Visibility Monitoring									
Scattering coefficient	4/28/1993	present	16.8	-	year-round	1-hour average	Nephelometer	NPS	IMPROVE
Digital Web Camera	4/1/1998	present	11.9	-	year-round	15 minutes	Camera	NPS	NPS-WEBCAMS
IMPROVE Sampler Module A - ver2	3/1/2000	present	10	-	year-round	24-hour average	Sampler - VII	NPS	IMPROVE
IMPROVE Sampler Module B - ver2	3/1/2000	present	10	-	year-round	24-hour average	Sampler - VII	NPS	IMPROVE
IMPROVE Sampler Module C - ver2	3/1/2000	present	10	-	year-round	24-hour average	Sampler - VII	NPS	IMPROVE
IMPROVE Sampler Module D - ver2	3/1/2000	present	10	-	year-round	24-hour average	Sampler - VII	NPS	IMPROVE

POLLUTANT/ INSTRUMENT	ANALYSIS METHOD	SAMPLING/ REPORTING FREQ	AQS CODE	PARAMETER	POC	REP ORG CODE	DATE SAMPLING BEGAN	MONITOR TYPE	MONITOR COMMENT	SAMPLING INSTRUMENT NAME AND DESIGNATION
Sulfur dioxide (SO_2) trace-level	Pulsed fluorescence	Continuous/1 hour	47-009-0101	42401	2	1029	20070401	SPECIAL PURPOSE	PROPOSED NCORE	Thermo SO_2 43i-TLE EQSA-0486-060
Carbon monoxide (CO) trace-level	NDIR-GFC	Continuous/1 hour	47-009-0101	42101	2	1029	20070401	SPECIAL PURPOSE	PROPOSED NCORE	Thermo CO-48i TLE RFCA-0981-054
[1]Nitrogen oxide (NO) trace-level	Chemiluminescence with molybdenum converter	Continuous/1 hour	47-009-0101	42601	2	1029	20070401	SPECIAL PURPOSE	PROPOSED NCORE	Thermo NO/NO_y 42C TLE RFNA-1289-074
[1]Total reactive nitrogen (NO_y) trace-level	Chemiluminescence with molybdenum converter	Continuous/1 hour	47-009-0101	42603	2	1029	20070401	SPECIAL PURPOSE	PROPOSED NCORE	Thermo NO/NO_y 42C TLE RFNA-1289-074
[1]Nitrogen oxide (NO) trace-level	Chemiluminescence with photolytic converter	Continuous/1 hour	47-009-0101	42601	3	1029	20081001	SPECIAL PURPOSE	PROPOSED NCORE	Teledyne NO/NO_2/NO_x 200EU with photolytic converter
[1]Nitrogen dioxide (NO_2) trace-level	Chemiluminescence with photolytic converter	Continuous/1 hour	47-009-0101	42602	3	1029	20081001	SPECIAL PURPOSE	PROPOSED NCORE	Teledyne NO/NO_2/NO_x 200EU with photolytic converter
[1]Oxides of Nitrogen (NO_x) trace-level	Chemiluminescence with photolytic converter	Continuous/1 hour	47-009-0101	42603	3	1029	20081001	SPECIAL PURPOSE	PROPOSED NCORE	Teledyne NO/NO_2/NO_x 200EU with photolytic converter
[1]Black carbon $PM_{2.5}$ LC	Optical absorption	Continuous/1 hour	47-009-0101	88313	2	1029	20070401	SPECIAL PURPOSE	PROPOSED NCORE	Magee Scientific AE21 Dual beam (BC/UV)
[1]Sulfate $PM_{2.5}$ LC	Thermal reduction/ Pulsed fluorescence	Continuous/1 hour	47-009-0101	88403	2	1029	20070509	SPECIAL PURPOSE	PROPOSED NCORE	Thermo Model 5020
[1]Calibrator	NA	Daily	NA	NA	NA	NA	20070401	NA	NA	Thermo Model 146C
[1]Zero Air Supply	NA	NA	NA	NA	NA	NA	20070401	NA	NA	Thermo 111
[1]Telemetry-Data Logger	NA	1 minute/1 hour	NA	NA	NA	NA	20070401	NA	NA	ESC 8832

Quality Assurance

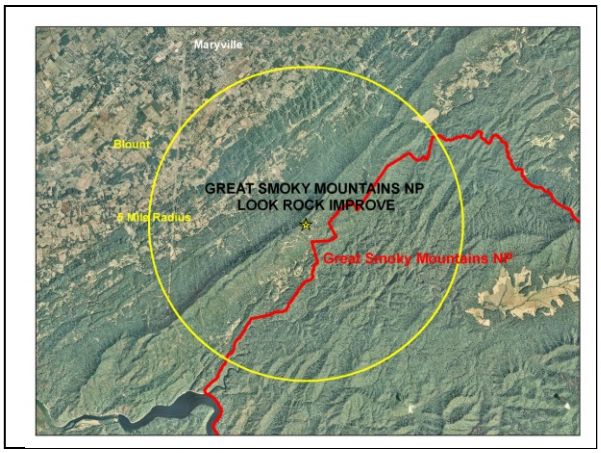
All Quality Assurance procedures shall be implemented in accordance with 40 CFR 58, Appendix A.

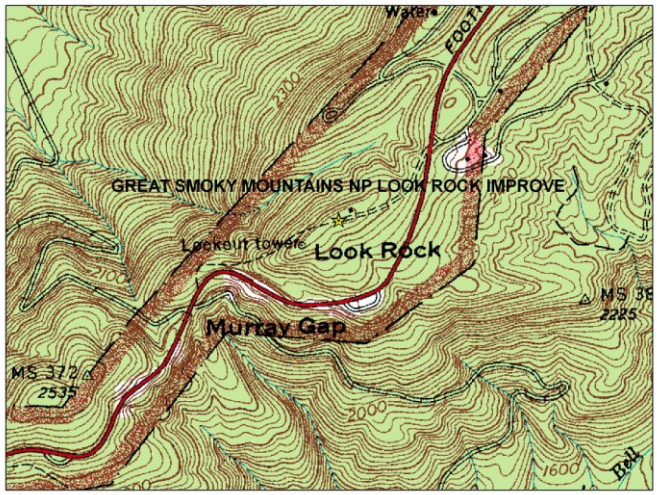
Area of Representativeness

40 CFR Part 58 Appendix D provides design criteria for ambient air monitoring. In the case of urban NCore the spatial scales to be used are neighborhood and urban. Because the Look Rock site is located in a pristine high elevation area, it is understood that the site is ideally suited for both background and transport related measurements..

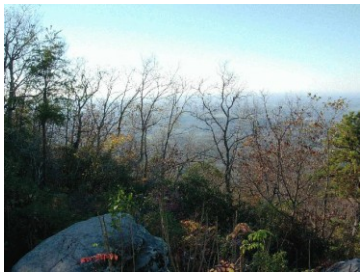
Spatial Scales for Each Pollutant

Generally regional scale.



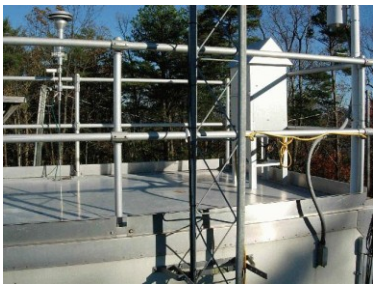


Looking North



Looking West

Overhead View of Look Rock Site



Looking East

Looking South

Need For Additional Resources

All parties agree that the collaboration between the National Park Service, TVA and the state of Tennessee at the Look Rock sampling site has produced an extraordinarily diverse and in-depth air quality record and that the bulk of this data set has been validated and reported to the U.S. EPA AQS repository. However, under the present piecemeal funding by the various agencies, there is no assurance that this will continue at the site for the longer term needed for monitoring compliance with the PM NAAQS and with the regional haze rule (RHR). What is needed is a long-term commitment by EPA to coordinate the operation of this and other sites to maintain quality and relevance in the NCore network over the long term. This commitment should commence by the 2011 time frame when NCore sites are expected to become fully operational.

Nashville-Davidson--Murfreesboro, TN MSA Area

Airs	Name	REPORG CODE	Latitude	Longitude	StreetAddress	CBSA2003Title
471490101	Ozone	1025	+35.732778	-86.598889	EAGLEVILLE PUCKETT'S FARM	Nashville-Davidson--Murfreesboro, TN
471650007	Ozone, PM2.5, PM2.5 Coloc, PM2.5 Cont	1025	+36.297778	-86.652778	ROCKLAND RECREATION AREA OLD HICKORY DAM	Nashville-Davidson--Murfreesboro, TN
471650101	Ozone	1025	+36.453889	-86.564167	COTTONTOWN WRIGHT'S FARM	Nashville-Davidson--Murfreesboro, TN
471870106	Ozone	1025	+35.951944	-87.137222	FAIRVIEW MIDDLE SCHOOL CROW CUT ROAD	Nashville-Davidson--Murfreesboro, TN
471890103	Ozone	1025	+36.060278	-86.286111	CEDARS OF LEBANON STATE PARK	Nashville-Davidson--Murfreesboro, TN
470370002	PM10	0682	+36.143244	-86.754611	LESTER and HART STS	Nashville-Davidson--Murfreesboro, TN
470370011	SO2, NO2, Ozone	0682	+36.205000	-86.744722	1015 EAST TRINITY LANE	Nashville-Davidson--Murfreesboro, TN
470370021	CO	0682	+36.159167	-86.781667	700 BROADWAY	Nashville-Davidson--Murfreesboro, TN
470370023	PM2.5, PM2.5 Coloc, PM2.5 Cont, PM2.5 Spec	0682	+36.176326	-86.738902	105 SOUTH 17TH ST at LOCKELAND SCHOOL	Nashville-Davidson--Murfreesboro, TN
470370024	PM10, PM10 Coloc	0682	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	Nashville-Davidson--Murfreesboro, TN
470370026	Ozone	0682	+36.150556	-86.621111	PERCY PRIEST	Nashville-Davidson--Murfreesboro, TN
470370036	PM2.5	0682	+36.118251	-86.873547	400 DAVIDSON RD	Nashville-Davidson--Murfreesboro, TN

MapID	Airs
19	471490101
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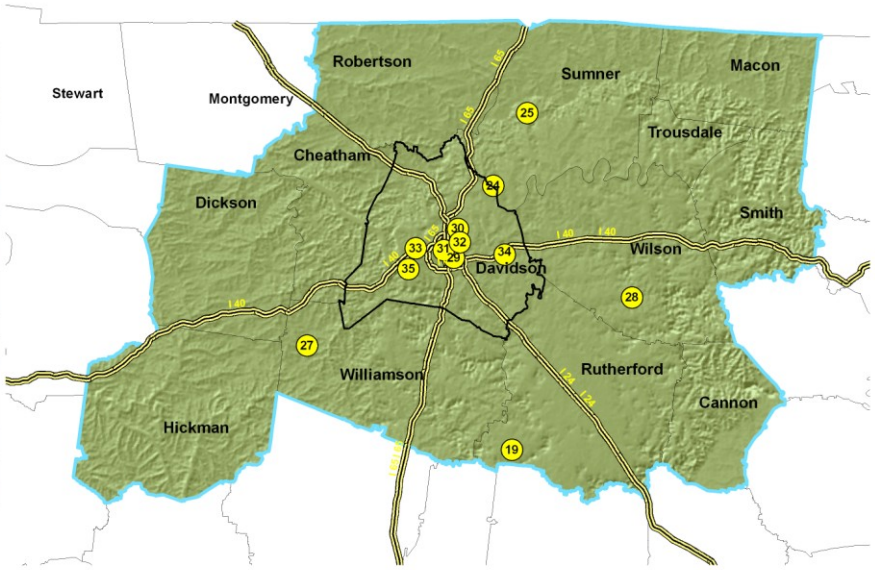
25	471650101
27	471870106
28	471890103
29	470370002
30	470370011
31	470370021
32	470370023
33	470370024
34	470370026
35	470370036



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV ug/m	2007 2009 24 Hr DV ug/m	Required	Operating	Required	Operating	Required
34980	1311789/ 1582264	Nashville-Davidson-Murfreesboro, TN	0	0	1	0	1	0	1	0	7	0.078	2	3[1]	2-4	3	11.8	26	3	1	1	2	2

[1] Includes collocated monitor.

Memphis, TN-MS-AR Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
471570014	PM2.5 Ref.	0673	+35.085833	-89.949444	3431 SHARPE AVENUE	Memphis, TN-MS-AR
471570016	PM10, PM10 Colloc.	0673	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	Memphis, TN-MS-AR
471570021	Ozone	0673	+35.217500	-90.019444	1330 FRAYSER BLVD	Memphis, TN-MS-AR
471570024	CO, PM2.5 Cont, PM2.5 Spec	0673	+35.150833	-90.041389	416 ALABAMA AVENUE	Memphis, TN-MS-AR
471570046	SO2, PM10	0673	+35.272778	-89.961389	3065 FITE RD	Memphis, TN-MS-AR
471570047	PM2.5, PM2.5 Colloc.	0673	+35.168950	-90.021567	1064 BREEDLOVE STREET	Memphis, TN-MS-AR
471571004	Ozone	0673	+35.377222	-89.832222	6855 MUDVILLE RD. EDMUND ORGILL PARK	Memphis, TN-MS-AR
471570075	NCore	0673	+35.15159	-89.85022	Haley Road (Shelby Farms)	Memphis, TN-MS-AR

MapID	Airs
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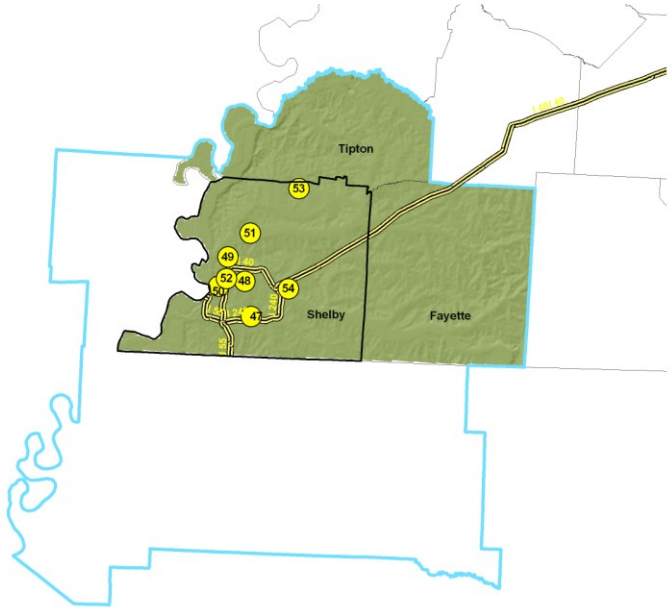
48	471570016
49	471570021
50	471570024
51	471570046
52	471570047
53	471571004
54	471570075



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
32820	1205204/ 1304926	Memphis, TN-MS-AR	0	0	1	0	1	0	0	0	2	0.078	2	3[2]	2-4	3[1,2]	11.7	28	3	1	1	1[1]	2

[1]The Memphis and Shelby County Health Department and the states of Arkansas and Mississippi have implemented a joint MOA that provides for meeting the MSA monitoring requirements for the combined MSA area. See Appendix 2 for the monitoring agreement.

[2] Includes collocated monitor.

Knoxville, TN Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470010101	Ozone	1025	+35.965000	-84.223333	FREELS BEND STUDY AREA MELTON LAKE	Knoxville, TN
470090011	PM2.5, PM2.5 Cont	1025	+35.768333	-83.942222	2007 SEQUOYAH AVENUE	Knoxville, TN
470090101	PM2.5 Cont	1025	+35.631389	-83.943611	GREAT SMOKY MOUNTAINS NP LOOK ROCK	Knoxville, TN
471050108	PM2.5	1025	+35.744700	-84.317400	130 WEBB DRIVE	Knoxville, TN
471050109	Ozone	1025	+35.720833	-84.341667	1703 ROBERTS RD	Knoxville, TN
471730107	PM10 Cont	1025	+36.224167	-83.714444	DONAHUE PROPERTY ON DONAHUE ROAD	Knoxville, TN
470930021	Ozone	0581	+36.084722	-83.764722	9315 RUTLEDGE PIKE (MASCOT, TN 37806)	Knoxville, TN
470930027	Lead, Lead Coloc	0581	+35.983506	-83.952253	2522 BURNSIDE STREET	Knoxville, TN
470930028	PM2.5	0581	+35.943611	-84.038889	1000 FRANCIS ROAD	Knoxville, TN
470931013	PM10, PM10 Colloc., PM2.5, PM2.5 Cont	0581	+35.980550	-83.932770	1407 DAVANNA STREET	Knoxville, TN
470931017	PM2.5, PM2.5 Coloc, Lead	0581	+35.978074	-83.950666	1613 VERMONT AVENUE	Knoxville, TN
470931020	Ozone, PM2.5, PM2.5 Spec	0581	+36.019440	-83.873610	4625 MILDRED DRIVE	Knoxville, TN

MapID	Airs
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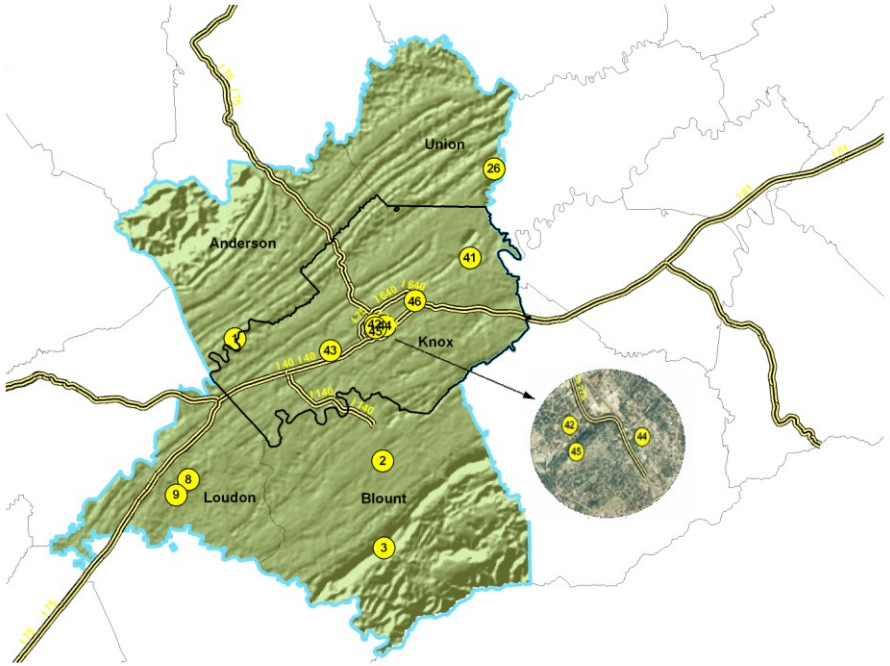
2	470090011
3	470090101
8	471050108
9	471050109
26	471730107
41	470930021
42	470930027
43	470930028
44	470931013
45	470931017
46	470931020



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

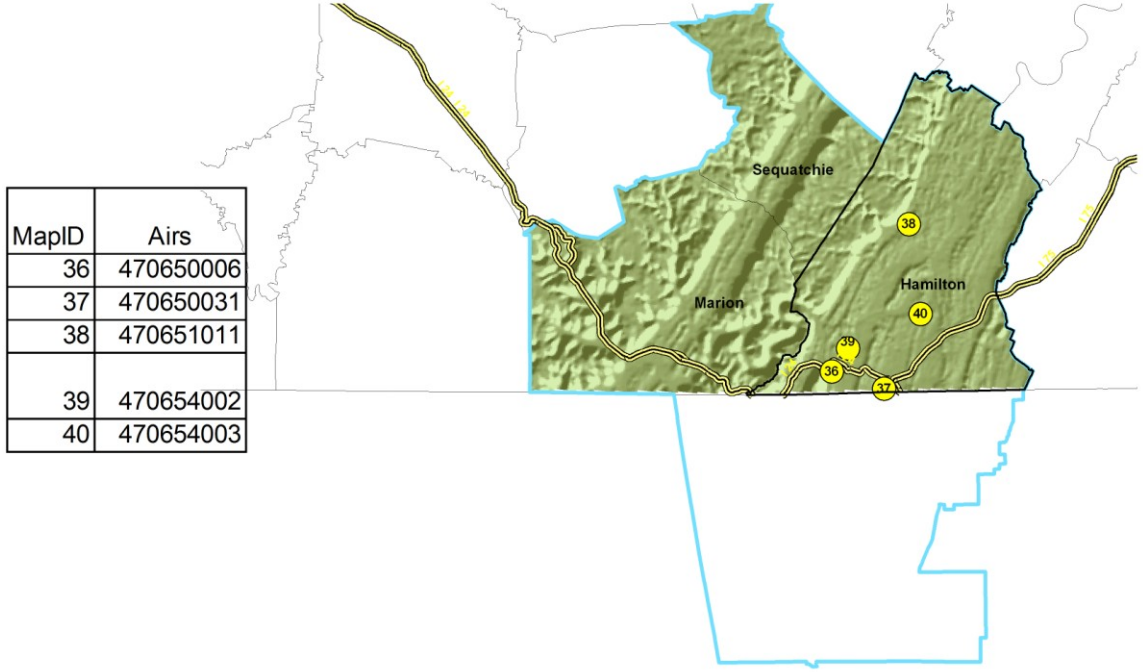
Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
28940	616079/ 699247	Knoxville, TN	2	1	0	0	0	0	0	0	4	0.082	2	3[1]	1	7[1]	29	13.7	2	1	1	3	1

[1] Includes collocated monitor.

Chattanooga, TN-GA Area

Airs	Name	REPORG CODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470650006	PM10, PM10 Coloc	0170	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	Chattanooga, TN-GA
470650031	PM2.5	0170	34.994197	-85.242958	1517 TOMBRAS AVENUE EAST RIDGE	Chattanooga, TN-GA
470651011*	Ozone, PM2.5	0170	35.233471	-85.181578*	SODDY DAISY H.S. 00620 SEQUOYAH RD	Chattanooga, TN-GA
470654002	PM2.5, PM2.5 Coloc, PM2.5 Cont, PM2.5 Spec, Carbon	0170	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	Chattanooga, TN-GA
470654003	Ozone	0170	35.100972	-85.162194	6200 BONNY OAKS DRIVE EASTSIDE UTILITY FILTER PLANT	Chattanooga, TN-GA

*Site moved 100 ft May 20, 2009



MapID	Airs
36	470650006
37	470650031
38	470651011
39	470654002
40	470654003

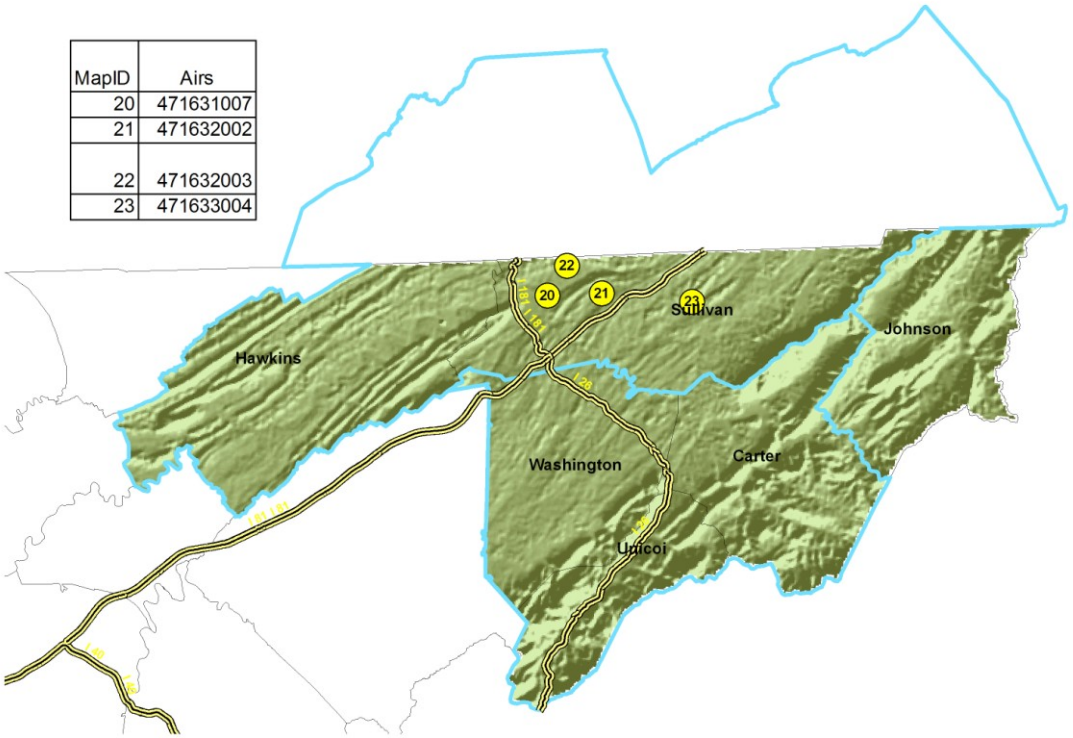
Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
16860	476531/ 524303	Chattanooga, TN-GA	0	0	0	0	0	0	0	0	2	0.079	2	2[1]	0-1	4[1]	12.7	28	1	1	1	1	1

[1] Includes collocated monitor.

Kingsport Bristol Johnson City Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
471631007	PM2.5, PM2.5 Cont	1025	+36.540654	-82.521667	1649 D STREET	Kingsport-Bristol, TN-VA
471632002	Ozone	1025	+36.541111	-82.426111	HILL ROAD	Kingsport-Bristol, TN-VA
471632003	Ozone	1025	+36.582222	-82.485833	KETRON MIDDLE SCHOOL ON BLOOMINGDALE RD.	Kingsport-Bristol, TN-VA
471633004	Lead, Lead colloc.	1025	+36.525556	-82.273333	EXIDE DR.	Kingsport-Bristol, TN-VA



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

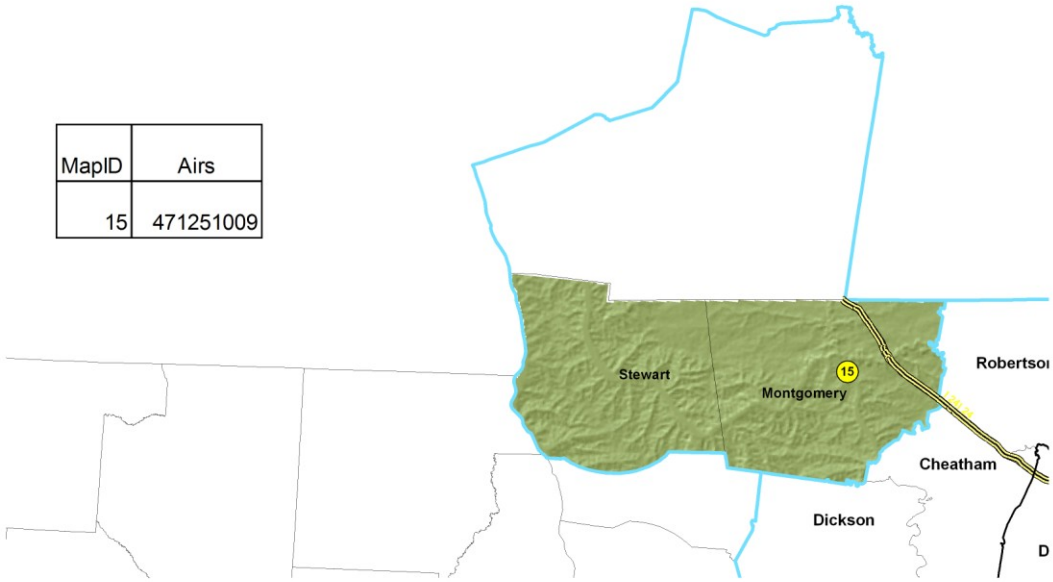
Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
27740	181607/ 197381	Johnson City, TN	0	0	0	0	0	0	0	0	0[1]		0-1	0[2]	0	0[3]			0	0	0	0	0

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
28700	298484/ 305629	Kingsport-Bristol-Bristol, TN-VA	2[4]	1	0	0	0	0	0	0	2	0.076	1	0[2]	0-1	1	12	27	1	0	0	1	1

[1]The two ozone sites in the Kingsport-Bristol MSA should be sufficient to assess ozone levels in the Johnson City MSA.
[2]Historical PM10 data does not reflect a need for PM10 monitoring in this area.
[3]PM2.5 monitoring in the Kingsport-Bristol MSA should be sufficient to assess PM 2.5 levels in the Johnson City MSA.
[4] Includes collocated monitor.

Clarksville, TN-KY Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
471251009	PM2.5, PM2.5 Cont, PM2.5 Spec	1025	+36.514444	-87.327778	1514 GOLF CLUB LANE	Clarksville, TN-KY



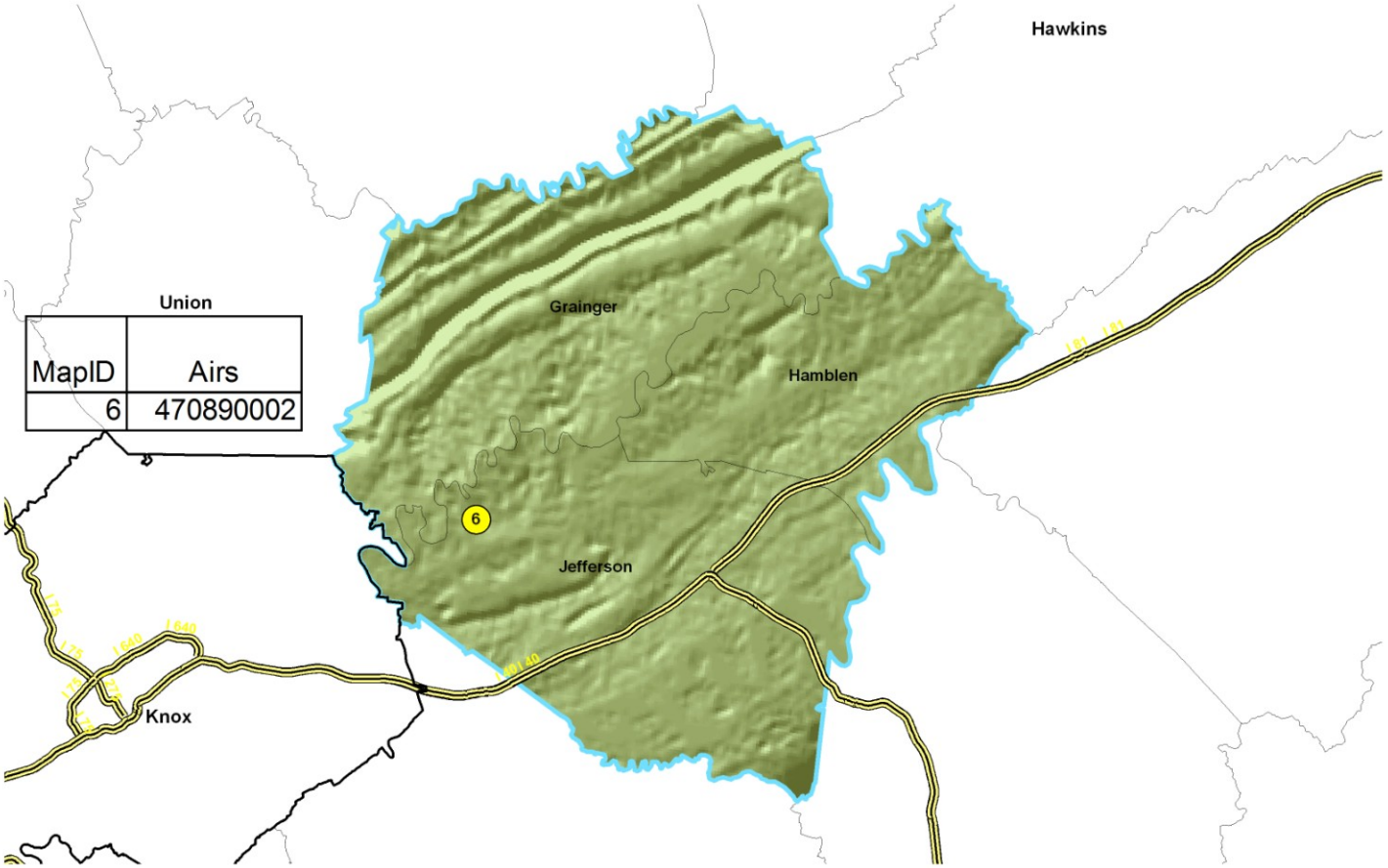
Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
17300	232000/ 268546	Clarksville, TN-KY	0	0	0	0	0	0	0	0	0[1]		1	0	0	1	11.5	28	1	1	0	1[2]	1

[1]State of Kentucky operates an ozone site in Christian County, Kentucky. See Appendix 1 for MSA monitoring agreement prepared by Kentucky for ozone monitoring.
[2]State of Tennessee operates a continuous $PM_{2.5}$ monitor in Clarksville, Montgomery County, Tennessee. See Appendix 1 for MSA monitoring agreement prepared by Tennessee for continuous $PM_{2.5}$ monitoring.

Morristown, TN Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470890002	Ozone	1025	+36.114444	-83.601111	1188 LOST CREEK RD	Morristown, TN



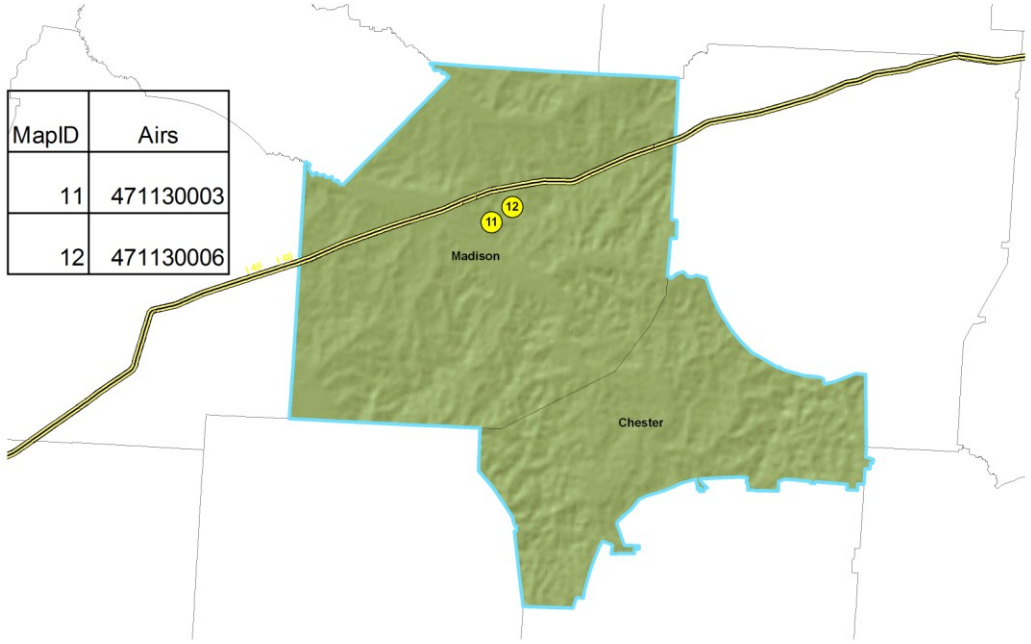
Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
34100	123081/ 137612	Morristown, TN	0	0	0	0	0	0	0	0	1	0.076	0-1	0[1]	0	0[2]			0-1	0	0	0	0

[1]Historical PM10 data does not reflect a need for PM10 monitoring in this area.
[2]PM 2.5 monitoring in the adjacent MSA's should be sufficient to assess PM 2.5 levels in this MSA.

Jackson, TN Area

Airs	Name	REPORG CODE	Latitude	Longitude	StreetAddress	CBSA2003Title
471130003	PM10	1025	+35.637500	-88.834444	JACKSON REGIONAL HEALTH OFFICE PARKING L	Jackson, TN
471130006	PM2.5, PM2.5 Coloc, PM2.5 Cont	1025	+35.653651	-88.809084	1371 A NORTH PARKWAY JACKSON, TN 38301	Jackson, TN



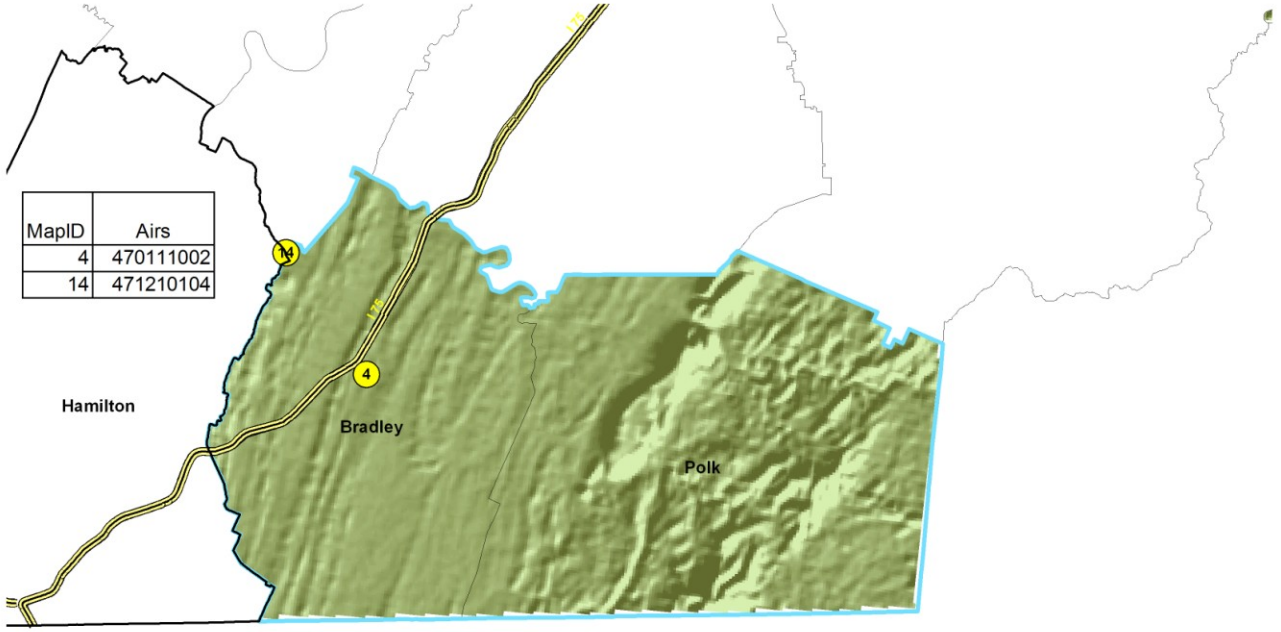
Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
27180	107377/ 113629	Jackson, TN	0	0	0	0	0	0	0	0	0		0-1	1	0	2[1]	10.6	26	1	0	0	1	1

[1] Includes collocated monitor.

Cleveland, TN Area

Airs	Name	REPOR GCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470111002	PM10, PM10 Coloc	1025	+35.188611	-84.867222	FIRE DEPT ON BY PASS	Cleveland, TN



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			14129 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10		88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000 /Est. 2009	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV	Required	Operating	Required	Operating	Required
17420	104015/ 113629	Cleveland, TN	0	0	0	0	0	0	0	0	0[1]	0.074	0-1	2[2]	0	0			0-1	0	0	0	0

[1]Tennessee operates an ozone site on the Meigs/Bradley County line.
[2] Includes collocated monitor.

Tennessee APCD air monitoring network report criteria summary.

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
471633004	14129	1	1025	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471633004	14129	2	1025	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471632002	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471632003	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
470010101	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471050109	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
470890002	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471490101	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471650007	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471650101	44201	1	1025	See table.	See table.	Continuous	Yes	See table.	DNA	See table.
471870106	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471890103	44201	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
470111002	81102	1	1025	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470111002	81102	2	1025	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471130003	81102	1	1025	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471730107	81102	1	1025	See table.	See table.	Continuous	No	See table.	DNA	See table.
471251009	88101	1	1025	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
471251009	88502	5	1025	See table.	See table.	1 in 6	No	See table.	Not suitable	See table.
471251009	88101	3	1025	See table.	See table.	Continuous	No	See table.	Suitable	See table.
471130006	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
471130006	88101	2	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
471130006	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
471631007	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
471631007	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
470090011	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
470090011	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
471050108	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
471650007	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
471650007	88101	2	1025	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
471650007	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
471071002	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
471071002	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	Not in MSA
471192007	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
471410005	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
470450004	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
470450004	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	Not in MSA
471450004	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
471450004	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	Not in MSA
470990002	88101	1	1025	See table.	See table.	1 in 3	No	See table.	Suitable	Not in MSA
470990002	88101	3	1025	See table.	See table.	Continuous	No	See table.	Not suitable	Not in MSA
470990002	88502	5	1025	See table.	See table.	1 in 6	No	See table.	Not suitable	Not in MSA

Local programs air monitoring report criteria summary

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representative ness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470370021	42101	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	42401	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	42602	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	44201	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370026	44201	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370002	81102	1	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370024	81102	1	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370024	81102	2	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370023	88101	1	0682	See table.	See table.	Every Day	No	See table.	Suitable	See table.
470370023	88101	2	0682	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470370023	88502	3	0682	See table.	See table.	Continuous	No	See table.	Does Not Apply	See table.
470370036	88101	1	0682	See table.	See table.	Every Day	No	See table.	Suitable	See table.
470370023	88502	5	0682	See table.	See table.	1 in 6	No	See table.	Not suitable	See table.
470651011	44201	1	0170	See table.	See table.	Continuous	No	See table.	DNA	See table.
470654003	44201	1	0170	See table.	See table.	Continuous	No	See table.	DNA	See table.
470650006	81102	1	0170	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470650006	81102	2	0170	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470650031	88101	1	0170	See table.	See table.	1 in 3 (1/17/10)	No	See table.	Suitable	See table.
470651011	88101	1	0170	See table.	See table.	1 in 6	Yes, 100 feet	See table.	Suitable	See table.
470654002	88101	1	0170	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
470654002	88101	2	0170	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
470654002	88501	3	0170	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
470654002	88502	5	0170	See table.	See table.	1 in 6	No	See table.	Not suitable	See table.
470654002	88355	5	0170	See table	See table	1 in 6	No	See table	Not suitable	See table
470930021	44201	1	0581	See table.	See table.	Continuous	No	See table.	DNA	See table.
470930027	14129	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470930027	14129	2	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470930028	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470931013	81102	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470931013	81102	2	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470931013	88501	3	0581	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
470931013	88101	1	0581	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470931017	14129	1	0581	See table.	See table.	1 in 6	Yes	See table.	DNA	See table.
470931017	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
470931017	88101	2	0581	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470931020	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
470931020	88502	5	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470931020	44201	1	0581	See table.	See table.	Continuous	No	See table.	DNA	See table.
TBD	14129	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570014	88101	1	0673	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
471570016	81102	1	0673	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570016	81102	2	0673	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570021	44201	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570024	88501	3	0673	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
471570024	88502	5	0673	See table.	See table.	1 in 6	No	See table.	suitable	See table.
471570024	42101	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570046	81102	1	0673	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570046	42401	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570047	88101	1	0673	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
471570047	88101	2	0673	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
471570075	NCORE		0673	See table.	See table.	NCORE	No	See table.	Suitable	See table.
471571004	44201	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.

Tennessee Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470010101	44201	1	1025	19920401	Knoxville, TN	699,247	616,079	FOREST	RURAL	AREA	URBAN SCALE	POPULATION EXPOSURE	OTHER	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
470090011	88101	1	1025	20000501	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	OTHER	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470090011	88101	3	1025	20061011	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
470111002	81102	1	1025	19990401	Cleveland, TN	113,358	104,015	COMMERCIAL	SUBURBAN			UNKNOWN	OTHER	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470111002	81102	2	1025	19990401	Cleveland, TN	113,358	104,015	COMMERCIAL	SUBURBAN			UNKNOWN	OTHER	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470450004	88101	1	1025	19990822	Dyersburg, TN	37,811	37,279	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470450004	88101	3	1025	20060616	Dyersburg, TN	37,811	37,279	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470890002	44201	1	1025	19990301	Morristown, TN	137,612	123,081	AGRICULTURAL	RURAL			UNKNOWN	OTHER	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
470990002	44201	1	1025	20060301	Lawrenceburg, TN	41,314	39,926	AGRICULTURAL	RURAL			MAX OZONE CONCENTRATION	SPECIAL PURPOSE	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
470990002	88101	1	1025	19981001	Lawrenceburg, TN	41,314	39,926	AGRICULTURAL	RURAL			UPWIND BACKGROUND	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470990002	88101	3	1025	20031001	Lawrenceburg, TN	41,314	39,926	AGRICULTURAL	RURAL			POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
470990002	88502	5	1025	20011203	Lawrenceburg, TN	41,314	39,926	AGRICULTURAL	RURAL	AREA	URBAN SCALE	UPWIND BACKGROUND	SLAMS SPECIATION	Met One SASS 810
471050108	88101	1	1025	20030901	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471050109	44201	1	1025	20060601	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SPECIAL PURPOSE	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
471071002	88101	1	1025	20000203	Athens, TN	52,739	49,015	COMMERCIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471071002	88101	3	1025	20060606	Athens, TN	52,739	49,015	COMMERCIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471130003	81102	1	1025	19970106	Jackson, TN	113,629	107,377	COMMERCIAL	SUBURBAN			UNKNOWN	OTHER	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
471130006	88101	1	1025	20041117	Jackson, TN	113,629	107,377	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471130006	88101	2	1025	20041117	Jackson, TN	113,629	107,377	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471130006	88101	3	1025	20060101	Jackson, TN	113,629	107,377	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471192007	88101	1	1025	19981225	Columbia, TN	84,302	69,498	COMMERCIAL	URBAN AND CENTER CITY	AREA	MIDDLE SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471210104	44201	1	1025	20000316	0	#N/A	#N/A	RESIDENTIAL	RURAL			UNKNOWN	OTHER	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
471251009	88101	1	1025	19981001	Clarksville, TN-KY	268,546	232,000	RESIDENTIAL	SUBURBAN			POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471251009	88101	3	1025	19981001	Clarksville, TN-KY	268,546	232,000	RESIDENTIAL	SUBURBAN			POPULATION EXPOSURE	SLAMS	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471251009	88502	5	1025	20061207	Clarksville, TN-KY	268,546	232,000	RESIDENTIAL	SUBURBAN			BACKGROUND	SLAMS SPECIATION	Met One SASS 810, URG 3000 N Carbon
471410005	88101	1	1025	20060815	Cookeville, TN	104,366	93,417	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471450004	88101	1	1025	19981001	Harriman, TN	53,508	51,910	COMMERCIAL	URBAN & CITY CENTER		URBAN SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471450004	88101	3	1025	20060401	Harriman, TN	53,508	51,910	COMMERCIAL	URBAN & CITY CENTER	AREA	URBAN SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471490101	44201	1	1025	19880401	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	AGRICULTURAL	RURAL	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
471631007	88101	1	1025	19981001	Kingsport-Bristol, TN-VA	305,629	298,484	RESIDENTIAL	SUBURBAN			POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471631007	88101	3	1025	20060801	Kingsport-Bristol, TN-VA	305,629	298,484	RESIDENTIAL	SUBURBAN			UPWIND BACKGROUND	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471632002	44201	1	1025	19800101	Kingsport-Bristol, TN-VA	305,629	298,484	RESIDENTIAL	RURAL	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Monitor Labs or Lear Siegler 8810 EQOA-0881-053 053
471632003	44201	1	1025	19950401	Kingsport-Bristol, TN-VA	305,629	298,484	RESIDENTIAL	SUBURBAN		NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Monitor Labs or Lear Siegler 8810 EQOA-0881-053 053
471633004	14129	1	1025	**20100101**	Kingsport-Bristol, TN-VA	305,629	298,484	INDUSTRIAL	SUBURBAN		MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Hi-vol Atomic Absorption 092
471633004	14129	2	1025	**20100101**	Kingsport-Bristol, TN-VA	305,629	298,484	INDUSTRIAL	SUBURBAN		MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Hi-vol Atomic Absorption 092
471650007	44201	1	1025	19730101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	SUBURBAN	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
471650007	88101	1	1025	19981001	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	SUBURBAN			POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471650007	88101	2	1025	19981001	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	SUBURBAN			POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471650007	88101	3	1025	20031001	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	SUBURBAN			POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/No Correction Factor 716
471650101	44201	1	1025	19880401	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	AGRICULTURAL	RURAL	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
471730107	81102	1	1025	19961025	Knoxville, TN	699,247	616,079	INDUSTRIAL	RURAL		MICRO SCALE	HIGHEST CONCENTRATION	OTHER	R & P TEOM 1400, 1400a EQPM -1090-079 079
471870106	44201	1	1025	19970411	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	RURAL	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
471890103	44201	1	1025	19880701	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	FOREST	RURAL	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087

Local Program Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470370002	81102	1	0682	19900101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370011	42401	1	0682	19740301	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Dasibi 4108 EQSA-1086-061 061
470370011	42602	1	0682	19750106	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 42C RFNA-1289-074 074
470370011	44201	1	0682	19720101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370021	42101	1	0682	19720414	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	MOBILE	MICROSCALE	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 48C RFCA-0981-054 054
470370023	88101	1	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370023	88101	2	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470370023	88501	3	0682	20010301	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Approved AQI (Non-regulatory)	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/Correction Factor 717
470370023	88502	5	0682	20020213	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Speciation (Non-regulatory)	Met One Super SASS and URG 3000N Carbon 810
470370024	81102	1	0682	19900101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	SUBURBAN	AREA	MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370024	81102	2	0682	20000501	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	SUBURBAN	AREA	MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370026	44201	1	0682	19780101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	FOREST	RURAL	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370036	88101	1	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,582,264	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470650006	81102	1	0170	19860101	Chattanooga, TN-GA	524,303	476,531	INDUSTRIAL	URBAN AND CENTER CITY	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470650006	81102	2	0170	19860101	Chattanooga, TN-GA	524,303	476,531	INDUSTRIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470650031	88101	1	0170	19990506	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY		NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470651011	44201	1	0170	19780801	Chattanooga, TN-GA	524,303	476,531	AGRICULTURAL	RURAL	AREA	REGIONAL SCALE	GENERAL/BACKGROUND	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
470651011	88101	1	0170	20020126	Chattanooga, TN-GA	524,303	476,531	AGRICULTURAL	RURAL		REGIONAL SCALE	GENERAL/BACKGROUND	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88101	1	0170	19990101	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88101	2	0170	19990101	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88501	3	0170	20040326	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY	AREA	URBAN SCALE	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 30 deg C PM2.5 VSCC w/No Correction Factor 715
470654002	88502	5	0170	20011127	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS SPECIATION	Met One SASS 810
470654002	88355	5	0170	20091001	Chattanooga, TN-GA	524,303	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	CARBON MONITOR	URG 3000 838

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470654003	44201	1	0170	20040301	Chattanooga, TN-GA	524,303	476,531	INDUSTRIAL	RURAL	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
470930021	44201	1	0581	19810601	Knoxville, TN	699,247	616,079	AGRICULTURAL	RURAL	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Teledyne 400E EQOA-0992-087 047
470930027	14129	1	0581	19941204	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470930027	14129	2	0581	19941204	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470930028	88101	1	0581	19990101	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025
470931013	88501	3	0581	20020208	Knoxville, TN	699,247	616,079	MOBILE	URBAN AND CENTER CITY	MOBILE	MIDDLE SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P TEOM Gravimetric 50 deg C PM2.5 SCC w/Correction Factor 702
470931013	88101	1	0581	20070222	Knoxville, TN	699,247	616,079	MOBILE	URBAN AND CENTER CITY	MOBILE	MIDDLE SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R&P Partisol plus 2025
470931013	81102	1	0581	20020101b	Knoxville, TN	699,247	616,079	b	URBAN AND CENTER CITY	MOBILE b	NEIGHBORHOOD b	POPULATION EXPOSURE b	SLAMS b	HI-VOL SA/GMW-321-B 064

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470931013	81102	2	0581	20090901b	Knoxville, TN	699,247	616,079	b	URBAN AND CENTER CITY	MOBILE b	NEIGHBORHOOD b	POPULATION EXPOSURE b	SPECIAL PURPOSE b	HI-VOL SA/GMW-321-B 064
470931017	14129	1	0581	20020101	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470931017	88101	1	0581	19990101	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025
470931017	88101	2	0581	19990101	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	OTHER	SPECIAL PURPOSE	R&P Partisol plus 2025
470931020	44201	1	0581	19810101	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Teledyne 400E EQOA-0992-087 047
470931020	88101	1	0581	19990101	Knoxville, TN	699,247	616,079	RESIDENTIAL	SUBURBAN	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025
470931020	88502	5	0581	20020619	Knoxville, TN	699,247	616,079	RESIDNTIAL	SUBURBAN		NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS SPECIATION	MetOne SASS 8863-2/URG 300
TBD	14129	1	0581	July 2010	Knoxville, TN	699,247	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
471570014	88101	1	0673	19981201	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471570016	81102	1	0673	19860101	Memphis, TN-MS-AR	1,304,926	1,205,204	INDUSTRIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
471570016	81102	2	0673	19860101	Memphis, TN-MS-AR	1,304,926	1,205,204	INDUSTRIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
471570021	44201	1	0673	19720901	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
471570024	42101	1	0673	20060401	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	MOBILE	MICROSCALE	HIGHEST CONCENTRATION	SLAMS	Teledyne Advanced Pollution Instr. 300 or 300E RFCA-1093-093 093
471570024	88501	3	0673	20060101	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P TEOM Gravimetric 50 deg C PM2.5 SSI w/No Correction Factor 711
471570024	88502	5	0673	20060514	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN			POPULATION EXPOSURE	TRENDS SPECIATION	Met One SASS 810
471570046	42401	1	0673	19940501	Memphis, TN-MS-AR	1,304,926	1,205,204	INDUSTRIAL	SUBURBAN	MOBILE	URBAN SCALE	MAX PRECURSOR EMISSIONS IMPACT	SLAMS	Advanced Pollution Instr. 100A/100AS EQSA-0495-100 100
471570046	81102	1	0673	19940501	Memphis, TN-MS-AR	1,304,926	1,205,204	INDUSTRIAL	SUBURBAN		NEIGHBORHOOD	MAX PRECURSOR EMISSIONS IMPACT	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2009 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471570047	88101	1	0673	19981201	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Pa rtisol-FRM 2000 PM - 2.5 RFPS-0498-117 117
471570047	88101	2	0673	19981201	Memphis, TN-MS-AR	1,304,926	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P Pa rtisol-FRM 2000 PM - 2.5 RFPS-0498-117 117
471571004	44201	1	0673	19800201	Memphis, TN-MS-AR	1,304,926	1,205,204	AGRICULTURAL	RURAL	MOBILE	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087

Tennessee's Ambient Air Monitoring Network Additional Criteria Data Tables (All state and local monitors including collocated monitors)

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
470010101	001	44201	1	Continuous	1025	S	+35.965000	-84.223333	FREELS BEND_STUDY AREA MELTON LAKE	28940	Knoxville, TN
470090011	009	88101	1	1 in 3	1025	S	+35.768333	-83.942222	2007 SEQUOYAH AVENUE	28940	Knoxville, TN
470090011	009	88101	3	Continuous	1025	S	+35.768333	-83.942222	2007 SEQUOYAH AVENUE	28940	Knoxville, TN
470111002	011	81102	1	1 in 6	1025	S	+35.188611	-84.867222	FIRE DEPT ON BY-PASS	17420	Cleveland, TN
470111002	011	81102	2	1 in 6	1025	S	+35.188611	-84.867222	FIRE DEPT ON BY-PASS	17420	Cleveland, TN
470450004	045	88101	1	1 in 3	1025	S	+36.052778	-89.381944	175-B GREENWOOD STREET	20540	Dyersburg, TN
470450004	045	88101	3	Continuous	1025	S	+36.052778	-89.381944	175-B GREENWOOD STREET	20540	Dyersburg, TN
470890002	089	44201	1	Continuous	1025	S	+36.114444	-83.601111	1188 LOST CREEK RD	34100	Morristown, TN
470990002	099	44201	1	Continuous	1025	S	+35.116111	-87.470000	BUSBY RD	29980	Lawrenceburg, TN
470990002	099	88101	1	1 in 3	1025	S	+35.116111	-87.470000	BUSBY RD	29980	Lawrenceburg, TN
470990002	099	88101	3	Continuous	1025	S	+35.116111	-87.470000	BUSBY RD	29980	Lawrenceburg, TN
470990002	099	88502	5	1 in 6	1025	S	+35.116111	-87.470000	BUSBY RD	29980	Lawrenceburg, TN
471050108	105	88101	1	1 in 3	1025	S	+35.744700	-84.317400	130 WEBB DRIVE	28940	Knoxville, TN
471050109	105	44201	1	Continuous	1025	S	+35.720833	-84.341667	1703 ROBERTS RD	28940	Knoxville, TN
471071002	107	88101	1	1 in 3	1025	S	+35.451111	-84.599167	SAINT MARK AME ZION CHURCH, 707 NORTH JACKSON ST.	11940	Athens, TN
471071002	107	88101	3	Continuous	1025	S	+35.451111	-84.599167	SAINT MARK AME ZION CHURCH, 707 NORTH JACKSON ST.	11940	Athens, TN
471130003	113	81102	1	1 in 6	1025	S	+35.637500	-88.834444	JACKSON REGIONAL HEALTH OFFICE PARKING L	27180	Jackson, TN
471130006	113	88101	1	1 in 3	1025	S	+35.653651	-88.809084	1371-A NORTH PARKWAY JACKSON, TN 38301	27180	Jackson, TN
471130006	113	88101	2	1 in 3	1025	S	+35.653651	-88.809084	1371-A NORTH PARKWAY JACKSON, TN 38301	27180	Jackson, TN
471130006	113	88101	3	Continuous	1025	S	+35.653651	-88.809084	1371-A NORTH PARKWAY JACKSON, TN 38301	27180	Jackson, TN
471192007	119	88101	1	1 in 3	1025	S	+35.643611	-87.013056	1306 NASHVILLE HWY	17940	Columbia, TN
471210104	121	44201	1	Continuous	1025	S	+35.288889	-84.946111	8401 HIGHWAY 60		
471251009	125	88101	1	1 in 1	1025	S	+36.514444	-87.327778	1514 GOLF CLUB LANE	17300	Clarksville, TN-KY
471251009	125	88101	3	Continuous	1025	S	+36.514444	-87.327778	1514 GOLF CLUB LANE	17300	Clarksville, TN-KY
471251009	125	88502	5	1 in 6	1025	S	+36.514444	-87.327778	1514 GOLF CLUB LANE	17300	Clarksville, TN-KY
471410005	141	88101	1	1 in 3	1025	S	+36.185720	-85.492200	630 EAST 20TH STREET	18260	Cookeville, TN
471450004	145	88101	1	1 in 3	1025	S	+35.938600	-84.543800	HARRIMAN HIGH 1002 N. ROAN ST MOVED FROM 501 CARTER ST	25340	Harriman, TN
471450004	145	88101	3	Continuous	1025	S	+35.938600	-84.543800	HARRIMAN HIGH 1002 N. ROAN ST MOVED FROM 501 CARTER ST	25340	Harriman, TN
471490101	149	44201	1	Continuous	1025	S	+35.732778	-86.598889	EAGLEVILLE PUCKETT'S FARM	34980	Nashville-Davidson--Murfreesboro, TN

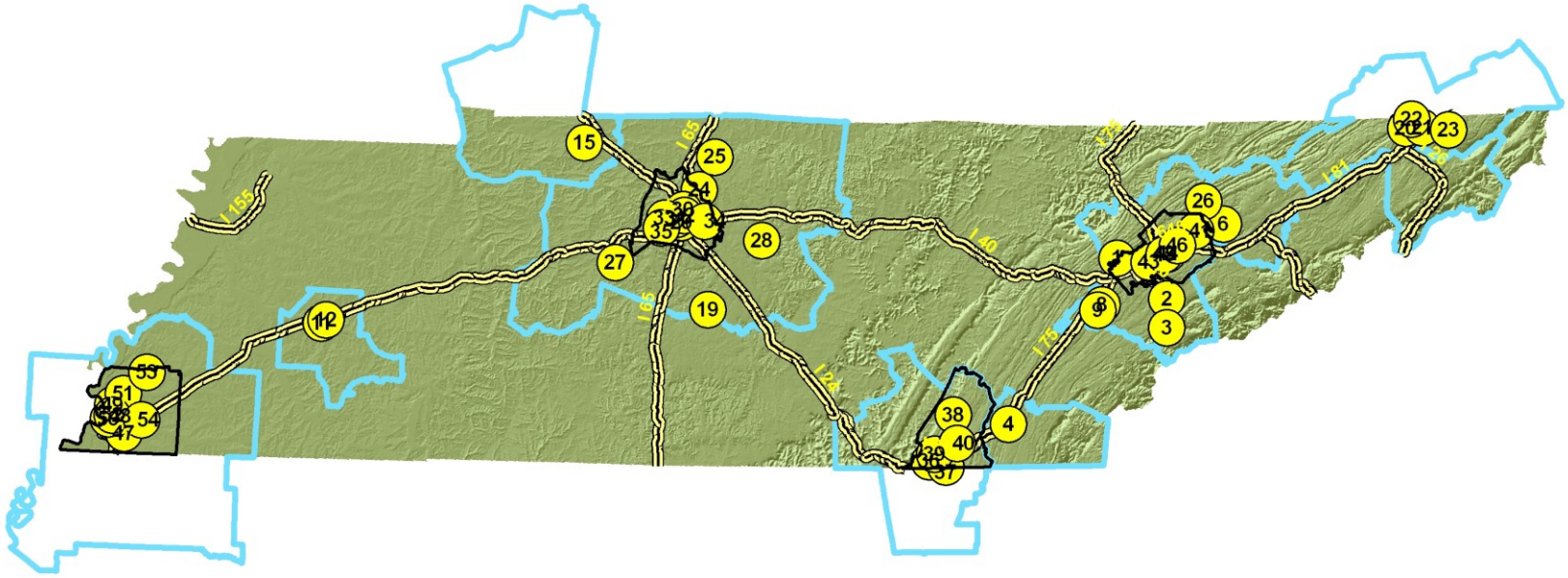
Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
471631007	163	88101	1	1 in 3	1025	S	+36.540654	-82.521667	1649 D STREET	28700	Kingsport-Bristol, TN-VA
471631007	163	88101	3	Continuous	1025	S	+36.540654	-82.521667	1649 D STREET	28700	Kingsport-Bristol, TN-VA
471632002	163	44201	1	Continuous	1025	S	+36.541111	-82.426111	HILL ROAD	28700	Kingsport-Bristol, TN-VA
471632003	163	44201	1	Continuous	1025	S	+36.582222	-82.485833	KETRON MIDDLE SCHOOL ON BLOOMINGDALE RD.	28700	Kingsport-Bristol, TN-VA
471633004	163	14129	1	1 in 6	1025	S	+36.525556	-82.273333	EXIDE DR.	28700	Kingsport-Bristol, TN-VA
471633004	163	14129	1	1 in 6	1025	S	+36.525556	-82.273333	EXIDE DR.	28700	Kingsport-Bristol, TN-VA
471650007	165	44201	1	Continuous	1025	S	+36.297778	-86.652778	ROCKLAND RECREATION AREA-OLD HICKORY DAM	34980	Nashville-Davidson--Murfreesboro, TN
471650007	165	88101	1	1 in 3	1025	S	+36.297778	-86.652778	ROCKLAND RECREATION AREA-OLD HICKORY DAM	34980	Nashville-Davidson--Murfreesboro, TN
471650007	165	88101	2	1 in 3	1025	S	+36.297778	-86.652778	ROCKLAND RECREATION AREA-OLD HICKORY DAM	34980	Nashville-Davidson--Murfreesboro, TN
471650007	165	88101	3	Continuous	1025	S	+36.297778	-86.652778	ROCKLAND RECREATION AREA-OLD HICKORY DAM	34980	Nashville-Davidson--Murfreesboro, TN
471650101	165	44201	1	Continuous	1025	S	+36.453889	-86.564167	COTTONTOWN WRIGHT'S FARM	34980	Nashville-Davidson--Murfreesboro, TN
471730107	173	81102	1	Continuous	1025	S	+36.224167	-83.714444	DONAHUE PROPERTY ON DONAHUE ROAD	28940	Knoxville, TN
471870106	187	44201	1	Continuous	1025	S	+35.951944	-87.137222	FAIRVIEW MIDDLE SCHOOL CROW CUT ROAD	34980	Nashville-Davidson--Murfreesboro, TN
471890103	189	44201	1	Continuous	1025	S	+36.060278	-86.286111	CEDARS OF LEBANON STATE PARK	34980	Nashville-Davidson--Murfreesboro, TN
470370002	037	81102	1	1 in 6	0682	L	+36.143244	-86.754611	LESTER & HART STS	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	42401	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	42602	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	44201	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370021	037	42101	1	Continuous	0682	L	+36.159167	-86.781667	810 BRODWAY	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88101	1	Every Day	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88101	2	1 in 6	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88502	3	Continuous	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88502	5	1 in 6	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370024	037	81102	1	1 in 6	0682	L	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	34980	Nashville-Davidson--Murfreesboro, TN
470370024	037	81102	2	1 in 6	0682	L	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	34980	Nashville-Davidson--Murfreesboro, TN
470370026	037	44201	1	Continuous	0682	L	+36.150556	-86.621111	PERCY PRIEST	34980	Nashville-Davidson--Murfreesboro, TN
470370036	037	88101	1	Every Day	0682	L	+36.118251	-86.873547	400 DAVIDSON RD	34980	Nashville-Davidson--Murfreesboro, TN

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
470650006	065	81102	1	1 in 6	0170	L	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	16860	Chattanooga, TN-GA
470650006	065	81102	2	1 in 6	0170	L	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	16860	Chattanooga, TN-GA
470650031	065	88101	1	1 in 3 (1/17/10)	0170	L	34.994197	-85.242958	1517 TOMBRAS AVENUE	16860	Chattanooga, TN-GA
470651011	065	44201	1	Continuous	0170	L	35.233471	-85.181578*	SODDY-DAISY H.S. 00620 SEQUOYAH RD	16860	Chattanooga, TN-GA
470651011	065	88101	1	1 in 6	0170	L	35.233471	-85.181578	SODDY-DAISY H.S. 00620 SEQUOYAH RD	16860	Chattanooga, TN-GA
470654002	065	88101	1	1 in 3	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88101	2	1 in 3	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88501	3	Continuous	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88502	5	1 in 6	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88355	5	1 in 6	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654003	065	44201	1	Continuous	0170	L	35.100972	-85.162194	6200 BONNY OAKS DRIVE EASTSIDE UTILITY FILTER PLANT	16860	Chattanooga, TN-GA
470930021	093	44201	1	Continuous	0581	L	+36.084722	-83.764722	9315 RUTLEDGE PIKE MASCOT, TN 37806	28940	Knoxville, TN
470930027	093	14129	1	1 in 6	0581	L	+35.983506	-83.952253	2522 BURNSIDE STREET	28940	Knoxville, TN
470930027	093	14129	2	1 in 6	0581	L	+35.983506	-83.952253	2522 BURNSIDE STREET	28940	Knoxville, TN
470930028	093	88101	1	1 in 1	0581	L	+35.943611	-84.038889	1000 FRANCIS ROAD	28940	Knoxville, TN
470931013	093	81102	1	1 in 6	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931013	093	81102	2	1 in 6	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931013	093	88501	3	Continuous	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931013	093	88101	2	1 in 6	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931017	093	14129	1	1 in 6	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931017	093	88101	1	1 in 1	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931017	093	88101	2	1 in 6	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931020	093	44201	1	Continuous	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
470931020	093	88101	1	1 in 1	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
470931020	093	88502	5	1 in 6	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
TBD	093	14129	1	1 in 6	0581	L	TBD	TBD	TBD	28940	Knoxville, TN
471570014	157	88101	1	1 in 1	0673	L	+35.085833	-89.949444	3431 SHARPE AVENUE	32820	Memphis, TN-MS-AR
471570016	157	81102	1	1 in 6	0673	L	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	32820	Memphis, TN-MS-AR
471570016	157	81102	2	1 in 6	0673	L	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	32820	Memphis, TN-MS-AR
471570021	157	44201	1	Continuous	0673	L	+35.217500	-90.019444	1330 FRAYSER BLVD	32820	Memphis, TN-MS-AR
471570024	157	42101	1	Continuous	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
471570024	157	88101	3	Continuous	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR
471570024	157	88502	5	1 in 6	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR
471570046	157	42401	1	Continuous	0673	L	+35.272778	-89.961389	3065 FITE RD	32820	Memphis, TN-MS-AR
471570046	157	81102	1	1 in 6	0673	L	+35.272778	-89.961389	3065 FITE RD	32820	Memphis, TN-MS-AR
471570047	157	88101	1	1 in 1	0673	L	+35.168950	-90.021567	1064 BREEDLOVE STREET	32820	Memphis, TN-MS-AR
471570047	157	88101	2	1 in 6	0673	L	+35.168950	-90.021567	1064 BREEDLOVE STREET	32820	Memphis, TN-MS-AR
471571004	157	44201	1	Continuous	0673	L	+35.377222	-89.832222	6855 MUDVILLE RD. EDMUND ORGILL PARK	32820	Memphis, TN-MS-AR

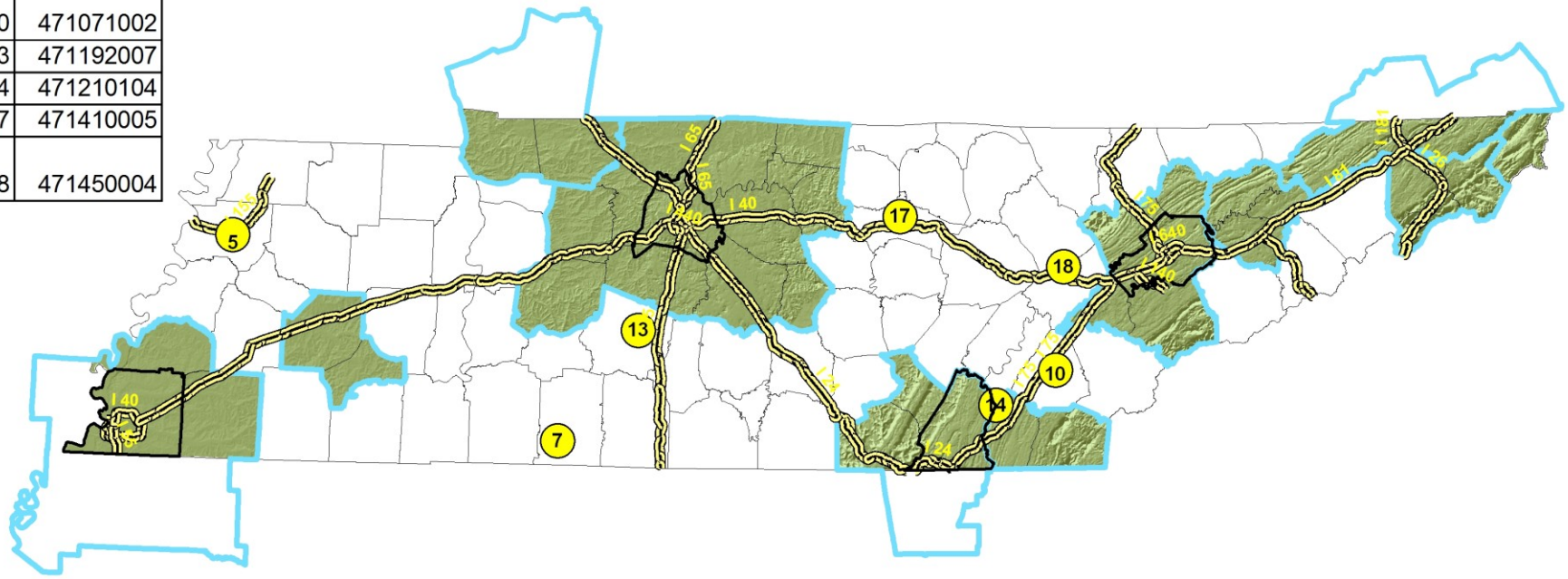
Monitoring Sites Located In MSA/CBSA Areas In Tennessee

MapID	Airs
1	470010101
2	470090011
3	470090101
4	470111002
6	470890002
8	471050108
9	471050109
11	471130003
12	471130006
14	471210104
15	471251009
19	471490101
20	471631007
21	471632002
22	471632003
23	471633004
24	471650007
25	471650101
26	471730107
27	471870106
28	471890103
29	470370002
30	470370011
31	470370021
32	470370023
33	470370024
34	470370026
35	470370036
36	470650006
37	470650031
38	470651011
39	470654002
40	470654003
41	470930021
42	470930027
43	470930028
44	470931013
45	470931017
46	470931020
47	471570014
48	471570016
49	471570021
50	471570024
51	471570046
52	471570047
53	471571004
54	471570075



Monitoring Sites Located In Non-MSA/CBSA Areas In Tennessee

MapID	Airs
5	470450004
7	470990002
10	471071002
13	471192007
14	471210104
17	471410005
18	471450004



Agreement Letters with Agencies Outside of Tennessee

Appendix 1: MSA Monitoring Agreements Prepared by Kentucky and Tennessee for Ozone and Continuous PM2.5 Monitoring

Appendix 2: MSA Monitoring Agreements for Memphis and Shelby County Health Department and the states of Arkansas and Mississippi

Appendix 1: MSA Monitoring Agreements Prepared by Kentucky and Tennessee for Ozone and Continuous PM2.5 Monitoring

Tennessee Agreement Letter (page 1 of 2 pages)

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
9TH FLOOR, L & C ANNEX
401 CHURCH STREET
NASHVILLE, TN 37243-1531

RECEIVED
OCT 31 2007
DIRECTOR'S OFFICE
DIVISION FOR AIR QUALITY

October 25, 2007

John S. Lyons, Director
Kentucky Division for Air Quality
Kentucky Department for Environmental Protection
803 Schenkel Lane
Frankfort, KY 40601

Dear Mr. Lyons:

The United States Environmental Protection Agency (EPA) revised monitoring regulations promulgated in Federal Register / Vol. 71, No. 200 / Tuesday, October 17, 2006 / Rules and Regulations, 40 CFR Part 58, Appendix D states in part: "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." This revision of the CFR also describes the minimum monitoring requirements for the NAAQS pollutants, including continuous PM 2.5 as it applies to MSA areas where the population is sufficient to warrant monitoring for that pollutant. Tennessee and Kentucky share the Clarksville, TN-KY MSA, which is comprised of Trigg and Christian counties in Kentucky and Stewart and Montgomery counties in Tennessee. The US Census Bureau lists this area as containing a population in excess of 230,000:

CBSA Code	Geographic area	Legal/statistical area description	July 1, 2005 Estimate	2000 Census
17300	Clarksville, TN-KY	Metropolitan Statistical Area	243,665	232,000

The Tennessee Division of Air Pollution Control (TDAPC) currently operates one (1) PM 2.5 FRM monitor and one (1) speciation monitor in Montgomery county and is installing a new continuous PM 2.5 monitor in this area. The TDAPC believes the operation of the existing PM 2.5 monitors; (FRM, speciation and new continuous), are sufficient to properly characterize the particulate air quality in the entire Clarksville, TN-KY MSA and comply with the requirements for both population and concentration based monitoring identified in the revised monitoring regulations as found at FR Vol. 71, No. 200 / Tuesday, October 17, 2006 p. 61321, "Table D-5" and FR Vol. 71, No. 200 / Tuesday, October 17, 2006 p. 61322, "4.7.2 Requirement for Continuous PM2.5 Monitoring". The TDAPC would like to invite the Kentucky Division for Air Quality to participate in Tennessee's annual ambient air monitoring network review. Tennessee commits to sharing with Kentucky any and all quality assured ambient air

monitoring data collected in the Tennessee portion of the Clarksville, TN-KY MSA. Tennessee also will notify Kentucky in advance of the intent to relocate or shutdown any of the PM 2.5 monitors referenced above so that adequate monitoring arrangements can be made to meet the entire MSA monitoring requirements for PM 2.5.

Sincerely,

Barry R. Stephens, PE
Director, Air Pollution Control Division

BRS/erb
cc: Beverly Banister, US EPA Region IV

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601-1403

Teresa J. Hill
Secretary

November 27, 2007

Barry R. Stephens, PE
Director
Division of Air Pollution Control
9th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1531

Dear Mr. Stephens: Barry

In a letter from your office dated October 25, 2007, the Tennessee Division of Air Pollution Control (TDAPC) agrees to operate a continuous PM2.5 monitor in the Clarksville/Hopkinsville metropolitan statistical area (MSA) to meet U.S. EPA's monitoring requirements. The Kentucky Division for Air Quality (DAQ) appreciates TDAPC's commitment to operate the PM2.5 monitor to meet all of the regulatory requirements for the MSA. DAQ also looks forward to participating in TDAPC's annual ambient air monitoring network review.

In accordance with Table D-2 of Appendix D to 40 CFR Part 58, one (1) ozone monitor is required to be operated in the Clarksville/Hopkinsville MSA. To satisfy the regulatory requirement, the DAQ agrees to operate an ozone monitor at the Hopkinsville monitoring station. DAQ commits to sharing with TDAPC any and all quality assured ambient air monitoring data collected in the Kentucky portion of the Clarksville/Hopkinsville MSA.

In the event that a shutdown or relocation of the ozone monitor is necessary, DAQ will notify TDAPC prior to the shutdown or relocation. Also, DAQ will operate the ozone monitor in accordance with all ambient air monitoring requirements located in 40 CFR Parts 50, 53, and 58.

If you have questions or concerns, please contact me at (502) 573-3382.

Sincerely,

John S. Lyons
Director

JSL/SOA/bss
c: Doug Neeley, US EPA Region 4

MEMPHIS AND SHELBY COUNTY
HEALTH DEPARTMENT

YVONNE S. MADLOCK
DIRECTOR

HELEN G. MORROW, M.D., MPA
ACTING HEALTH OFFICER

DR. WILLIE W. HERENTON
CITY OF MEMPHIS
MAYOR

A.C. WHARTON, JR
SHELBY COUNTY
MAYOR

July 8, 2008

Mr. Jackie Waynick, Manager Technical Services Program
State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control
401 Church Street, 9th Floor
L. & C. Annex
Nashville Tennessee 37243-1531

Mr. Waynick:

Participating agencies of the Memphis, TN-MS-AR Metropolitan Statistical Area (MSA) have signed the Memorandum Of Agreement (MOA). This MOA formalizes and reaffirms the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e). Each of the parties to this Agreement is responsible for ensuring that its obligations under MOA are met.

A copy of the MOA is included.

Sincerely,

Edward C. Cain, Supervisor
Air Monitoring Branch, Pollution Control

814 JEFFERSON AVENUE • MEMPHIS, TENNESSEE 38105
PHONE 901-544-7600

JUN 2 7 2006

MEMORANDUM OF AGREEMENT ON AIR QUALITY MONITORING FOR CRITERIA POLLUTANTS FOR THE MEMPHIS, TN-MS-AR METROPOLITAN STATISTICAL AREA (MSA)

Participating Agencies:

Memphis and Shelby County Health Dept. (MSCHD)
Air Pollution Control Program

Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control, Air Division

Arkansas Department of Environmental Quality (ADEQ)

PURPOSE/OBJECTIVES/GOALS

The purpose of this Memorandum of Agreement (MOA) is to establish the Memphis, Tennessee-Mississippi-Arkansas Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement among MSCHD, MDEQ AND ADEQ to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM 10), particles of an of an aerodynamic diameter of 2.5 micrometers and less (PM2.5), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will formalize and reaffirm the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e).

PM 2.5 MSA monitoring network include:

County	Federal Reference Method PM2.5	Continuous PM2.5	Speciation PM2.5	Colocated PM2.5
Shelby County, TN **MSCHD**	2	1	1	1
Crittenden County, AR **ADEQ**	1	1		
DeSoto County, MS **MDEQ**	1	1		1

Criteria Air Pollutant MSA monitoring network include:

County	PM 10	O_3	$NO_X/NO/NO_2$	CO	SO_2
Shelby County, TN **MSCHD**	2	2	1	1	1
Crittenden County, AR **ADEQ**		1	1		
DeSoto County, MS **MDEQ**		1			

RESPONSIBLITIES/ACTIONS

Each of the parties to this Agreement is responsible for ensuring that its obligations under MOA are met. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss monitoring activities for the MSA. Each affected agency shall inform the other affected agencies via telephone or email of any monitoring changes occurring within its jurisdiction of the MSA at its earliest convenience, after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or any occurrences that result in an extended (greater than one quarter) or permanent change in the monitoring network.

LIMITATIONS

- All commitments made in this MOA are subject to the availability of appropriated funds and each agency's budget priorities. Nothing in this MOA obligates MSCHD, MDEQ or ADEQ to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.

- This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this agreement will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate agreements that will be affected in writing by representatives of the parties.

- This MOA does not create any right or benefit enforceable by law or equity against MSCHD, MDEQ or ADEQ, their officers or employees, or any other person. This MOA does not apply to any entity outside MSCHD, MDEQ or ADEQ.

- No proprietary information or intellectual property is anticipated to arise out of this MOA.

TERMINATION

This Memorandum of Agreement may be revised upon the mutual consent of MSCHD, MDEQ and ADEQ. Each party reserves the right to terminate this MOA. A thirty (30) day written notice must be given prior to the date of termination.

APPROVALS

We agree with the provisions outlined in this Memorandum of Agreement and commit our agencies to implement them in a spirit of cooperation and mutual support.

Shelby County Government
Memphis and Shelby County Health Dept. (MSCHD)
Air Pollution Control Program

BY: _____ 5/18/08

TITLE: Mayor, Shelby County Government

DATE: _____

APPROVED AS TO F
AND LEGALITY:
Assistant Contract Adm
Assistant County Att

Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control, Air Division

BY: Maya Rao

TITLE: Chief, Air Division

DATE: 05/28/08

Arkansas Department of Environmental Quality (ADEQ)

BY: Teresa Marks

TITLE: Director

DATE: 6/20/08

List of Attachments

Local Program Submittals of Ambient Monitoring Plans

1 Chattanooga AMP

2 Knoxville AMP

3 Memphis AMP

4 Nashville AMP

These documents are provided as submitted by the respective monitoring agency for use by the state in updating the overall ambient monitoring plan document.

1 Chattanooga AMP

Ambient Air Monitoring Plan

2010

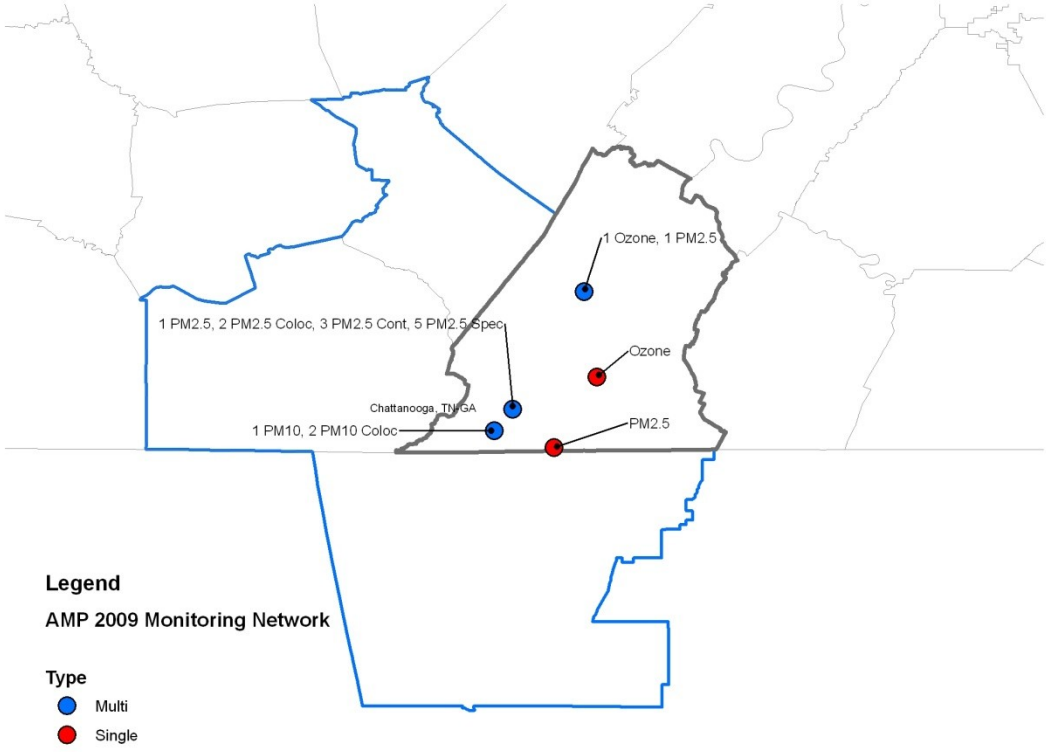
Chattanooga/Hamilton County Air Pollution Control Bureau

Draft Plan

March 2, 2010

Chattanooga, TN-GA Area

Airs	Name	REPORGCODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470650006	1 PM10, 2 PM10 Coloc	0170	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	Chattanooga, TN-GA
470650031	PM2.5	0170	34.994197	-85.242958	1517 TOMBRAS AVENUE EAST RIDGE	Chattanooga, TN-GA
470651011	1 Ozone, 1 PM2.5	0170	35.233471	-85.181578*	SODDY DAISY H.S. 00620 SEQUOYAH RD	Chattanooga, TN-GA
470654002	1 PM2.5, 2 PM2.5 Coloc, 3 PM2.5 Cont, 5 PM2.5 Spec, 5 Carbon	0170	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	Chattanooga, TN-GA
470654003	Ozone	0170	35.100972	-85.162194	6200 BONNY OAKS DRIVE EASTSIDE UTILITY FILTER PLANT	Chattanooga, TN-GA
* Site moved 100 ft May 20, 2009						



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			12128 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10				88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2006 2008 8 Hr DV	Required	Operating	2008 24 Hr Max. 150 ug/m3	2008 Annual 50 ug/m3	Required	Operating	2006 2008 Annual DV	2006 2008 24 Hr DV 35/65 ug/m	Required	Operating	Required	Operating	Required

Local programs air monitoring report criteria summary

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representative ness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470651011	44201	1	0170	See table.	See table.	Continuous	No	See table.	DNA	See table.
470654003	44201	1	0170	See table.	See table.	Continuous	No	See table.	DNA	See table.
470650006	81102	1	0170	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470650006	81102	2	0170	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470650031	88101	1	0170	See table.	See table.	1 in 3 (1/17/10)	No	See table.	Suitable	See table.
470651011	88101	1	0170	See table.	See table.	1 in 6	Yes, 100 feet	See table.	Suitable	See table.
470654002	88101	1	0170	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
470654002	88101	2	0170	See table.	See table.	1 in 3	No	See table.	Suitable	See table.
470654002	88501	3	0170	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
470654002	88502	5	0170	See table.	See table.	1 in 6	No	See table.	Not suitable	See table.
470654002	88355	5	0170	See table	See table	1 in 6	No	See table	Not suitable	See table

Local Program Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470650006	81102	1	0170	19860101	Chattanooga, TN-GA	492,126	476,531	INDUSTRIAL	URBAN AND CENTER CITY	AREA	URBAN SCALE	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470650006	81102	2	0170	19860101	Chattanooga, TN-GA	492,126	476,531	INDUSTRIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470650031	88101	1	0170	19990506	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY		NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470651011	44201	1	0170	19780801	Chattanooga, TN-GA	492,126	476,531	AGRICULTURAL	RURAL	AREA	REGIONAL SCALE	GENERAL/BACKGROUND	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047
470651011	88101	1	0170	20020126	Chattanooga, TN-GA	492,126	476,531	AGRICULTURAL	RURAL		REGIONAL SCALE	GENERAL/BACKGROUND	SPECIAL PURPOSE	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88101	1	0170	19990101	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88101	2	0170	19990101	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
470654002	88501	3	0170	20040326	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY	AREA	URBAN SCALE	POPULATION EXPOSURE	OTHER	R & P TEOM Gravimetric 30 deg C PM2.5 VSCC w/No Correction Factor 715

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470654002	88502	5	0170	20011127	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	SLAMS SPECIATION	Met One SASS 810
470654002	88355	5	0170	20091001	Chattanooga, TN-GA	492,126	476,531	COMMERCIAL	URBAN AND CENTER CITY		URBAN SCALE	POPULATION EXPOSURE	CARBON MONITOR	URG 3000 838
470654003	44201	1	0170	20040301	Chattanooga, TN-GA	492,126	476,531	INDUSTRIAL	RURAL	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Thermo Electron or Thermo Environmental Instruments 49, 49C, 49i EQOA-0880-047 047

Tennessee's Ambient Air Monitoring Network Additional Criteria Data Tables (All state and local monitors including collocated monitors)

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
470650006	065	81102	1	1 in 6	0170	L	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	16860	Chattanooga, TN-GA
470650006	065	81102	2	1 in 6	0170	L	35.017139	-85.322056	3300 BROAD ST., 33RD AND BROAD, WDEF	16860	Chattanooga, TN-GA
470650031	065	88101	1	1 in 3 (1/17/10)	0170	L	34.994197	-85.242958	1517 TOMBRAS AVENUE	16860	Chattanooga, TN-GA
470651011	065	44201	1	Continuous	0170	L	35.233471	-85.181578*	SODDY-DAISY H.S. 00620 SEQUOYAH RD	16860	Chattanooga, TN-GA
470651011	065	88101	1	1 in 6	0170	L	35.233471	-85.181578	SODDY-DAISY H.S. 00620 SEQUOYAH RD	16860	Chattanooga, TN-GA
470654002	065	88101	1	1 in 3	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88101	2	1 in 3	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88501	3	Continuous	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88502	5	1 in 6	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654002	065	88355	5	1 in 6	0170	L	35.050917	-85.292972	RIVERSIDE SUBSTATION 911 SISKIN DR	16860	Chattanooga, TN-GA
470654003	065	44201	1	Continuous	0170	L	35.100972	-85.162194	6200 BONNY OAKS DRIVE EASTSIDE UTILITY FILTER PLANT	16860	Chattanooga, TN-GA

* Site moved 100 ft May 20, 2009, on same property.

Chattanooga-Hamilton County Air Pollution Control Bureau
Network Review
2010

East Ridge Site Collocated for 2009

The Chattanooga-Hamilton County Air Pollution Control Bureau's East Ridge $PM_{2.5}$ monitoring site (470650031) located at the U.S. Post Office, 1510 Maxwell Road, was moved to a temporary site on November 20, 2007, at 1517 Tombras Avenue behind East Ridge City Hall. The site was moved to a more desirable permanent site January 1, 2009, at the same address. Both the temporary and the permanent monitors were operated as daily collocated monitors about 110 feet apart from January 1, 2009, through January 17, 2010, for a comparison demonstration between the two data sets. After the complete 2009 collocated data set indicated excellent correlation, EPA recognized the temporary site data as being representative of the area in a letter dated February 25, 2010. EPA is willing to accept the Tombras Avenue temporary site data, along with the Maxwell Road and permanent Tombras Avenue sites, as weight of evidence for any attainment determinations for the Chattanooga-Hamilton County, Tennessee, Georgia Metropolitan Statistical Area.

East Ridge Monitoring Schedule Change

Daily monitoring at the Tombras Avenue site (470650031) is no longer required because Hamilton County is in attainment for the daily $PM_{2.5}$ standard. The collocated monitoring project was finished at the end of 2009. The temporary site was discontinued January 18, 2010, and the permanent site changed to three-day monitoring beginning January 17, 2010, with EPA concurrence in a letter dated February 25, 2010.

Soddy Daisy $PM_{2.5}$/Ozone Module Moved

The Bureau was informed by the Hamilton County School System in March, 2009, that the Soddy Daisy High School $PM_{2.5}$/ozone module (470651011), located in a field behind the school, must be moved. At that time the Hamilton County Department of Education anticipated starting work immediately on a new softball field, and the location of the module interfered with the proposed location of the field. The school system offered a new location approximately 100 feet from the original site. The move occurred on May 20, 2009, and it was coordinated so that there was minimal ozone data loss due to power interruptions.

Carbon Monitor Added

As part of the third phase of EPA's carbon monitoring program, a URG 3000 carbon monitor was added to the 911 Siskin Drive site (470654002) October 1, 2009, to monitor in conjunction with the Met One SuperSASS $PM_{2.5}$ speciation monitor.

Attainment

Hamilton County $PM_{2.5}$ sites' data are indicating attainment for the three year periods of 2006, 2007 and 2008 and 2007, 2008, and 2009. $PM_{2.5}$ levels were extremely low for 2008 and 2009 across the region. Local pollution reduction measures have been aggressive since 2005. Also, sulfate scrubbers were activated in 2008 by Georgia Power's nearby Bowen and Hammond Plants.

Active Sites

Chattanooga-Hamilton County Active Sites	Pollutant	Monitor	AQS #
3300 South Broad Street/ WDEF	PM_{10} Collocated (6-day)	Sierra Anderson	470650006

		321B	
911 Siskin Drive formerly University of Tennessee at Chattanooga (UTC)	$PM_{2.5}$ Collocated (3-day) $PM_{2.5}$ Speciation (6-day) Carbon $PM_{2.5}$ Continuous TEOM	R & P 2025 Seq. Met 1 SuperSASS URG 3000 TEOM 1400A	470654002 CORE $PM_{2.5}$
1517 Tombras Avenue/ formerly 1510 Maxwell Rd	$PM_{2.5}$ (Collocation from 1/1/2009-1/17/2010) 3-day monitoring began 1/20/2010)	R & P 2025 Seq.	470650031
618 Sequoyah Access Road at Soddy-Daisy High School	$PM_{2.5}$ (6-day) Ozone Continuous Ozone Calibrator	R & P 2025 Seq. TECO 49C TECO 49CPS	470651011
6200 Bonny Oaks Drive/Eastside Utility District	Ozone Continuous Ozone Calibrator	TECO 49C TECO 49CPS	470654003

Site Changes for 2010

No site changes are anticipated for 2010. No lead monitoring will be required in Hamilton County in 2011. Hamilton County anticipates, at some point in the future, participating in the Core-Based Statistical Area near-road monitoring for NO_2 in conjunction with the recently promulgated NO_2 regulations.

2 Knoxville AMP

Ambient Air Monitoring Plan

2010

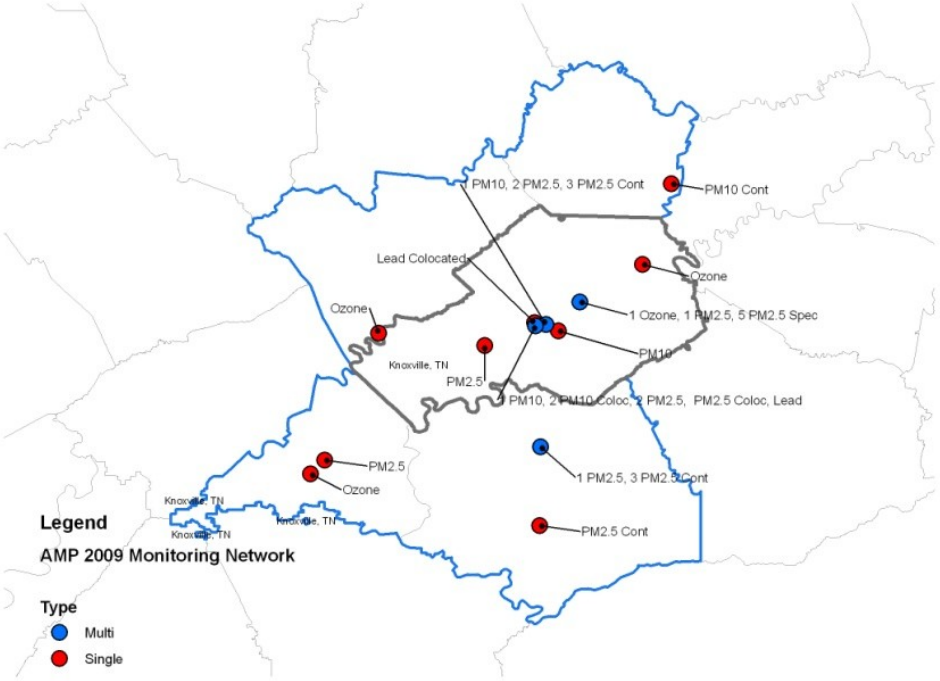
Knox County Health Department, Department of Air Quality Management

Draft Plan

February 10, 2010

Knoxville, TN Area

Airs	Name	REPORG CODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470930021	East Knox Elementary	0581	+36.084722	-83.764722	9315 RUTLEDGE PIKE (MASCOT, TN 37806)	Knoxville, TN
470930027	Burnside Street	0581	+35.983506	-83.952253	2522 BURNSIDE STREET	Knoxville, TN
470930028	Bearden Elementary	0581	+35.943611	-84.038889	1000 FRANCIS ROAD	Knoxville, TN
470931013	Air Lab	0581	+35.980550	-83.932770	1407 DAVANNA STREET	Knoxville, TN
470931017	Rule High School	0581	+35.978074	-83.950666	1613 VERMONT AVENUE	Knoxville, TN
470931020	Spring Hill Elementary	0581	+36.019440	-83.873610	4625 MILDRED DRIVE	Knoxville, TN



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			12128 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10				88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	2009 24 Hr Max. 150 ug/m3	2009 Annual 50 ug/m3	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV 35/65 ug/m	Required	Operating	Required	Operating	Required
28940	616079	Knoxville, TN	3	2 (+ 1 QA)	0	0	0	0	0	0	2		1	0			1 (+ 1 QA)	5			2 (+ 2 QA)	1	1	1	1

Local programs air monitoring report criteria summary

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representative ness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470930021	44201	1	0581	See table.	See table.	Continuous	No	See table.	DNA	See table.
470931020	44201	1	0581	See table.	See table.	Continuous	No	See table.	DNA	See table.
470930027	14129	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470930027	14129	2	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470931013	81102	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470930028	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
470931013	88501	3	0581	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
470931013	88101	2	0581	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470931017	14129	1	0581	See table.	See table.	1 in 6	Yes	See table.	DNA	See table.
470931017	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
470931017	88101	2	0581	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470931020	88101	1	0581	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
470931020	88502	5	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.
TBD	14129	1	0581	See table.	See table.	1 in 6	No	See table.	DNA	See table.

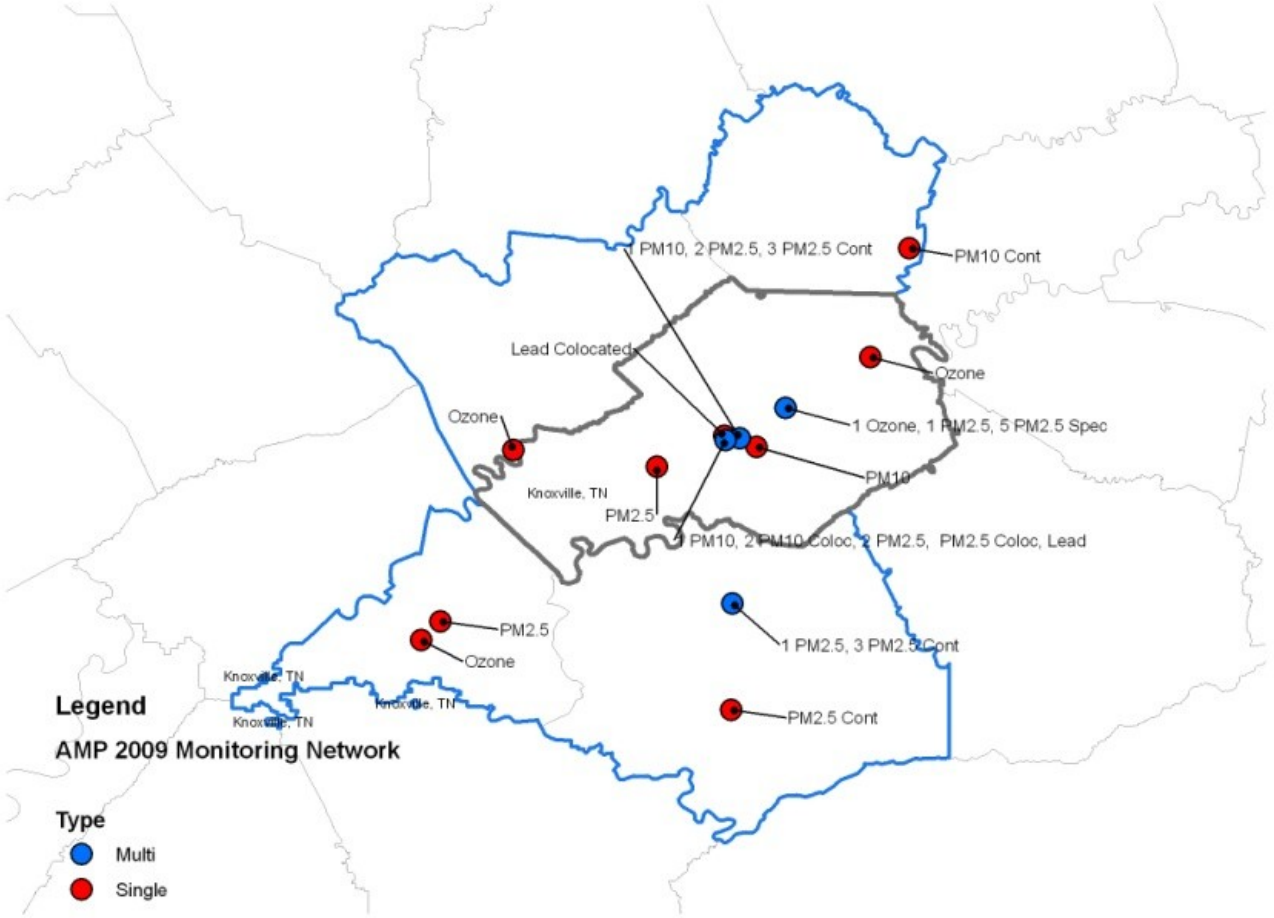
Local Program Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470930021	44201	1	0581	19810601	Knoxville, TN	667384	616,079	AGRICULTURAL	RURAL	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Teledyne 400E EQOA-0992-087 047
470930027	14129	1	0581	19941204	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470930027	14129	2	0581	19941204	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470930028	88101	1	0581	19990101	Knoxville, TN	667384	616,079	RESIDENTIAL	SUBURBAN	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025
470931013	88501	3	0581	20020208	Knoxville, TN	667384	616,079	MOBILE	URBAN AND CENTER CITY	MOBILE	MIDDLE SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R & P TEOM Gravimetric 50 deg C PM2.5 SCC w/Correction Factor 702
470931013	88101	2	0581	20070222	Knoxville, TN	667384	616,079	MOBILE	URBAN AND CENTER CITY	MOBILE	MIDDLE SCALE	POPULATION EXPOSURE	SPECIAL PURPOSE	R&P Partisol plus 2025
470931017	14129	1	0581	20020101	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	HIGHEST CONCENTRATION	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
470931017	88101	1	0581	19990101	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025
470931017	88101	2	0581	19990101	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	NEIGHBORHOOD	OTHER	SPECIAL PURPOSE	R&P Partisol plus 2025
470931020	44201	1	0581	19810101	Knoxville, TN	667384	616,079	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Teledyne 400E EQOA-0992-087 047
470931020	88101	1	0581	19990101	Knoxville, TN	667384	616,079	RESIDENTIAL	SUBURBAN	MOBILE	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R&P Partisol plus 2025

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470931020	88502	5	0581	20020619	Knoxville, TN	667384	616,079	RESIDNTIAL	SUBURBAN		NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS SPECIATIO N	MetOne SASS 8863-2/URG 300
TBD	14129	1	0581	July 2010	Knoxville, TN	667384	616,079	RESIDENTIAL	URBAN AND CENTER CITY	POINT	NEIGHBORHOOD	HIGHEST CONCENTRATI ON	SPECIAL PURPOSE	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064

Tennessee's Ambient Air Monitoring Network Additional Criteria Data Tables (All state and local monitors including collocated monitors)

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
470930021	093	44201	1	Continuous	0581	L	+36.084722	-83.764722	9315 RUTLEDGE PIKE MASCOT, TN 37806	28940	Knoxville, TN
470930022	093	14129	1	1 in 6	0581	L	+35.983506	-83.952253	2522 BURNSIDE STREET	28940	Knoxville, TN
470930022	093	14129	1	1 in 6	0581	L	+35.983506	-83.952253	2522 BURNSIDE STREET	28940	Knoxville, TN
470930028	093	88101	1	1 in 1	0581	L	+35.943611	-84.038889	1000 FRANCIS ROAD	28940	Knoxville, TN
470931013	093	88501	3	Continuous	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931013	093	88101	2	1 in 6	0581	L	+35.980550	-83.932770	1407 DAVANNA STREET	28940	Knoxville, TN
470931017	093	14129	1	1 in 6	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931017	093	88101	1	1 in 1	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931017	093	88101	2	1 in 6	0581	L	+35.975000	-83.954444	1613 VERMONT AVENUE	28940	Knoxville, TN
470931020	093	44201	1	Continuous	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
470931020	093	88101	1	1 in 1	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
470931020	093	88502	5	1 in 6	0581	L	+36.019440	-83.873610	4625 MILDRED DRIVE	28940	Knoxville, TN
TBD	093	14129	1	1 in 6	0581	L	TBD	TBD	TBD	28940	Knoxville, TN


1 PM10, 2 PM2.5, 3 PM2.5 Cont
PM10 Cont
Lead Colocated
Ozone
Ozone
1 Ozone, 1 PM2.5, 5 PM2.5 Spec
PM10
Knoxville, TN
PM2.5
1 PM10, 2 PM10 Coloc, 2 PM2.5, PM2.5 Coloc, Lead
PM2.5
Ozone
1 PM2.5, 3 PM2.5 Cont
PM2.5 Cont
Knoxville, TN
Knoxville, TN
Knoxville, TN
Legend
AMP 2009 Monitoring Network
Type
Multi
Single

Ambient Air Monitoring Plan

2010

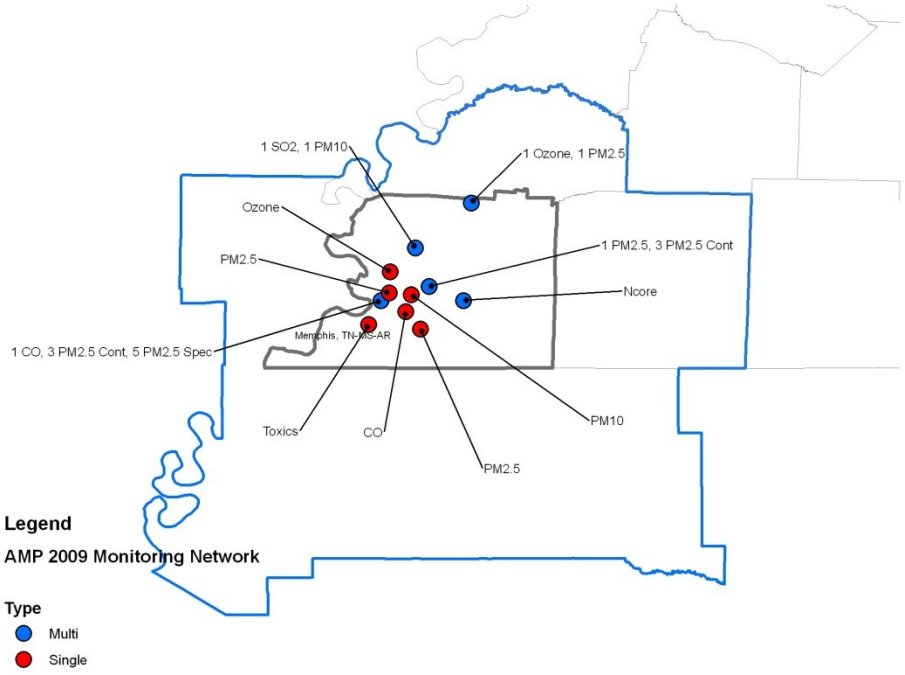
Memphis/Shelby County Health Department, Air Pollution Control Program

Draft Plan

February 17, 2010

Memphis, TN-MS-AR Area

Airs	Name	REPORGCODE	Latitude	Longitude	Street Address	CBSA2003Title
471570014	PM2.5	0673	+35.085833	-89.949444	3431 SHARPE AVENUE	Memphis, TN-MS-AR
471570016	PM10	0673	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	Memphis, TN-MS-AR
471570021	Ozone	0673	+35.217500	-90.019444	1330 FRAYSER BLVD	Memphis, TN-MS-AR
471570024	1 CO, 3 PM2.5 Cont, 5 PM2.5 Spec	0673	+35.150833	-90.041389	416 ALABAMA AVENUE	Memphis, TN-MS-AR
471570046	1 SO2, 1 PM10	0673	+35.272778	-89.961389	3065 FITE RD	Memphis, TN-MS-AR
471570047	PM2.5	0673	+35.168950	-90.021567	1064 BREEDLOVE STREET	Memphis, TN-MS-AR
471571004	1 Ozone	0673	+35.377222	-89.832222	6855 MUDVILLE RD. EDMUND ORGILL PARK	Memphis, TN-MS-AR
471570075	NCore	0673	+35.15159	-89.85022	Haley Road (Shelby Farms)	Memphis, TN-MS-AR



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			12128 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10				88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2006 2008 8 Hr DV	Required	Operating	2008 24 Hr Max. 150 ug/m3	2008 Annual 50 ug/m3	Required	Operating	2006 2008 Annual DV	2006 2008 24 Hr DV 35/65 ug/m	Required	Operating	Required	Operating	Required
			0	0	1	0	1	0	0	0	2	0.082	2	2	61	21.7	2-4	2	14.9	29	3	1	1	1*	2

*The Memphis and Shelby County Health Department and the states of Arkansas and Mississippi have implemented a joint MOA that provides for meeting the MSA monitoring requirements for the combined MSA area. See Appendix 2 for the monitoring agreement.

Local programs air monitoring report criteria summary

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
471570014	88101	1	0673	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
471570016	81102	1	0673	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570021	44201	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570024	88501	3	0673	See table.	See table.	Continuous	No	See table.	Not suitable	See table.
471570024	88502	5	0673	See table.	See table.	1 in 6	No	See table.	suitable	See table.
471570024	42101	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570046	81102	1	0673	See table.	See table.	1 in 6	No	See table.	DNA	See table.
471570046	42401	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.
471570047	88101	1	0673	See table.	See table.	1 in 1	No	See table.	Suitable	See table.
471570075	NCORE		0673	See table.	See table.	NCORE	No	See table.	Suitable	See table.
471571004	44201	1	0673	See table.	See table.	Continuous	No	See table.	DNA	See table.

Local Program Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471570014	88101	1	0673	19981201	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Partisol-Plus 2025 PM-2.5 Seq. RFPS-0498-118 118
471570016	81102	1	0673	19860101	Memphis, TN-MS-AR	1,260,905	1,205,204	INDUSTRIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064
471570021	44201	1	0673	19720901	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087
471570024	42101	1	0673	20060401	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN	MOBILE	MICROSCALE	HIGHEST CONCENTRATION	SLAMS	Teledyne Advanced Pollution Instr. 300 or 300E RFCA-1093-093 093
471570024	88501	3	0673	20060101	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P TEOM Gravimetric 50 deg C PM2.5 SSI w/No Correction Factor 711
471570024	88502	5	0673	20060514	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN			POPULATION EXPOSURE	TRENDS SPECIATION	Met One SASS 810
471570046	42401	1	0673	19940501	Memphis, TN-MS-AR	1,260,905	1,205,204	INDUSTRIAL	SUBURBAN	MOBILE	URBAN SCALE	MAX PRECURSOR EMISSIONS IMPACT	SLAMS	Advanced Pollution Instr. 100A/100AS EQSA-0495-100 100
471570046	81102	1	0673	19940501	Memphis, TN-MS-AR	1,260,905	1,205,204	INDUSTRIAL	SUBURBAN		NEIGHBORHOOD	MAX PRECURSOR EMISSIONS IMPACT	SLAMS	Sierra-Andersen/GMW 321 -B RFPS-1287-064 064

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
471570047	88101	1	0673	19981201	Memphis, TN-MS-AR	1,260,905	1,205,204	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	R & P Pa rtisol-FRM 2000 PM - 2.5 RFPS-0498-117 117
471571004	44201	1	0673	19800201	Memphis, TN-MS-AR	1,260,905	1,205,204	AGRICULTURAL	RURAL	MOBILE	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Advanced Pollution Instr. 400/400A/400E EQOA-0992-087 087

Tennessee's Ambient Air Monitoring Network Additional Criteria Data Tables (All state and local monitors including collocated monitors)

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
471570014	157	88101	1	1 in 1	0673	L	+35.085833	-89.949444	3431 SHARPE AVENUE	32820	Memphis, TN-MS-AR
471570016	157	81102	1	1 in 6	0673	L	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	32820	Memphis, TN-MS-AR
471570016	157	81102	2	1 in 6	0673	L	+35.164444	-89.970833	GAS SERVICE CENTER MEAGHER STREET	32820	Memphis, TN-MS-AR
471570021	157	44201	1	Continuous	0673	L	+35.217500	-90.019444	1330 FRAYSER BLVD	32820	Memphis, TN-MS-AR
471570024	157	42101	1	Continuous	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR
471570024	157	88101	3	Continuous	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR
471570024	157	88502	5	1 in 6	0673	L	+35.150833	-90.041389	416 ALABAMA AVENUE	32820	Memphis, TN-MS-AR
471570046	157	42401	1	Continuous	0673	L	+35.272778	-89.961389	3065 FITE RD	32820	Memphis, TN-MS-AR
471570046	157	81102	1	1 in 6	0673	L	+35.272778	-89.961389	3065 FITE RD	32820	Memphis, TN-MS-AR
471570047	157	88101	1	1 in 1	0673	L	+35.168950	-90.021567	1064 BREEDLOVE STREET	32820	Memphis, TN-MS-AR
471571004	157	44201	1	Continuous	0673	L	+35.377222	-89.832222	6855 MUDVILLE RD. EDMUND ORGILL PARK	32820	Memphis, TN-MS-AR

MEMPHIS AND SHELBY COUNTY
HEALTH DEPARTMENT

YVONNE S. MADLOCK
DIRECTOR

HELEN G. MORROW, M.D., MPA
ACTING HEALTH OFFICER

DR. WILLIE W. HERENTON
CITY OF MEMPHIS
MAYOR

A.C. WHARTON, JR
SHELBY COUNTY
MAYOR

July 8, 2008

Mr. Jackie Waynick, Manager Technical Services Program
State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control
401 Church Street, 9th Floor
L. & C. Annex
Nashville Tennessee 37243-1531

Mr.Waynick:

Participating agencies of the Memphis, TN-MS-AR Metropolitan Statistical Area (MSA) have signed the Memorandum Of Agreement (MOA). This MOA formalizes and reaffirms the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e). Each of the parties to this Agreement is responsible for ensuring that its obligations under MOA are met.

A copy of the MOA is included.

Sincerely,

Edward C. Cain, Supervisor
Air Monitoring Branch, Pollution Control

814 JEFFERSON AVENUE • MEMPHIS, TENNESSEE 38105
PHONE 901-544-7600

JUN 2 7 2008

MEMORANDUM OF AGREEMENT
ON AIR QUALITY MONITORING FOR CRITERIA POLLUTANTS FOR THE MEMPHIS, TN-MS-AR METROPOLITAN STATISTICAL AREA (MSA)

Participating Agencies:

Memphis and Shelby County Health Dept. (MSCHD)
Air Pollution Control Program

Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control, Air Division

Arkansas Department of Environmental Quality (ADEQ)

PURPOSE/OBJECTIVES/GOALS

The purpose of this Memorandum of Agreement (MOA) is to establish the Memphis, Tennessee-Mississippi-Arkansas Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement among MSCHD, MDEQ AND ADEQ to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM 10), particles of an of an aerodynamic diameter of 2.5 micrometers and less (PM2.5), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will formalize and reaffirm the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e).

PM 2.5 MSA monitoring network include:

County	Federal Reference Method PM2.5	Continuous PM2.5	Speciation PM2.5	Colocated PM2.5
Shelby County, TN **MSCHD**	2	1	1	1
Crittenden County, AR **ADEQ**	1	1		
DeSoto County, MS **MDEQ**	1	1		1

Criteria Air Pollutant MSA monitoring network include:

County	PM 10	O_3	$NO_X/NO/NO_2$	CO	SO_2
Shelby County, TN **MSCHD**	2	2	1	1	1
Crittenden County, AR **ADEQ**		1	1		
DeSoto County, MS **MDEQ**		1			

RESPONSIBLITIES/ACTIONS

Each of the parties to this Agreement is responsible for ensuring that its obligations under MOA are met. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss monitoring activities for the MSA. Each affected agency shall inform the other affected agencies via telephone or email of any monitoring changes occurring within its jurisdiction of the MSA at its earliest convenience, after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or any occurrences that result in an extended (greater than one quarter) or permanent change in the monitoring network.

LIMITATIONS

- All commitments made in this MOA are subject to the availability of appropriated funds and each agency's budget priorities. Nothing in this MOA obligates MSCHD, MDEQ or ADEQ to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.

- This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this agreement will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate agreements that will be affected in writing by representatives of the parties.

- This MOA does not create any right or benefit enforceable by law or equity against MSCHD, MDEQ or ADEQ, their officers or employees, or any other person. This MOA does not apply to any entity outside MSCHD, MDEQ or ADEQ.

- No proprietary information or intellectual property is anticipated to arise out of this MOA.

TERMINATION

This Memorandum of Agreement may be revised upon the mutual consent of MSCHD, MDEQ and ADEQ. Each party reserves the right to terminate this MOA. A thirty (30) day written notice must be given prior to the date of termination.

APPROVALS

We agree with the provisions outlined in this Memorandum of Agreement and commit our agencies to implement them in a spirit of cooperation and mutual support.

Shelby County Government
Memphis and Shelby County Health Dept. (MSCHD)
Air Pollution Control Program

BY: _____ 5/18/08

TITLE: Mayor, Shelby County Government

DATE: _____

APPROVED AS TO FO
AND LEGALITY:
Assistant Contract Admin
Assistant County Atto

Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control, Air Division

BY: Maya Rao

TITLE: Chief, Air Division

DATE: 05/28/08

Arkansas Department of Environmental Quality (ADEQ)

BY: Teresa Marks

TITLE: Director

DATE: 6/20/08

Airs	Name	Parameter	POC	PQAO	Latitude	Longitude	Street Address	CBSA
47-157-0014	PM2.5(daily)	88101	1	1025	35.085833	-89.949444	3431 Sharpe Avenue	Memphis, TN-MS-AR
47-157-0016	PM10 (1/6)	81102	1	1025	35.164444	-89.970833	GSC Meagher Street	Memphis, TN-MS-AR
	PM10 (1/6)	81102	2	1025				
47-157-0021	Ozone	44201	1	1025	35.2175	-90.019444	1330 Frayser Blvd.	Memphis, TN-MS-AR
47-157-0024	CO	42101	1	1025	35.150833	-90.041389	416 Alabama	Memphis, TN-MS-AR
	PM2.5 Cont	88502	3	1025				
	PM2.5 Speciation (1/3)		5	1217				
47-157-0046	SO2	42401	1	1025	35.272778	-89.961389	3065 Fite Road	Memphis, TN-MS-AR
	PM10 (1/6)	81102	1	1025				
47-157-0047	PM2.5 (daily)	88101	1	1025	35.16895	-90.021567	1064 Breedlove	Memphis, TN-MS-AR
	PM2.5 (1/6)	88101	2	1025				
47-157-1004	Ozone	44201	1	1025	35.377222	-89.832222	6855 Mudville Rd.	Memphis, TN-MS-AR
47-157-0075	NCore				35.15159	-89.85022	Haley Road	Memphis, TN-MS-AR

Note:

The proposed NCore site located at Shelby Farms has been granted official EPA approval.

4 Nashville AMP

Ambient Air Monitoring Plan

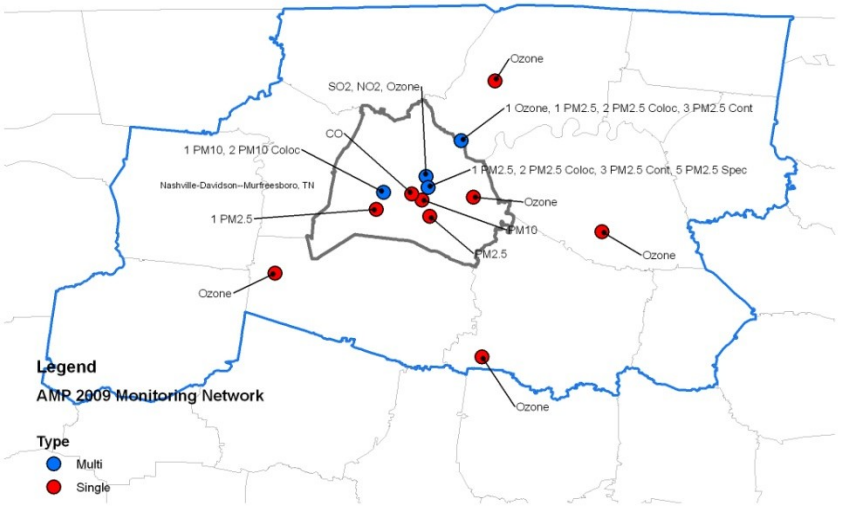
2010

Metro Public Health Department
Pollution Control Division
Nashville, Tennessee

Draft Plan
March 12, 2010

Nashville-Davidson--Murfreesboro, TN MSA Area

Airs	Name	REPORG CODE	Latitude	Longitude	StreetAddress	CBSA2003Title
470370002	PM10	0682	+36.143244	-86.754611	LESTER and HART STS	Nashville-Davidson--Murfreesboro, TN
470370011	SO2, NO2, Ozone	0682	+36.205000	-86.744722	1015 EAST TRINITY LANE	Nashville-Davidson--Murfreesboro, TN
470370021	CO	0682	+36.159167	-86.781667	700 BROADWAY	Nashville-Davidson--Murfreesboro, TN
470370023	1 PM2.5, 2 PM2.5 Coloc, 3 PM2.5 Cont, 5 PM2.5 Spec	0682	+36.176326	-86.738902	105 SOUTH 17TH ST at LOCKELAND SCHOOL	Nashville-Davidson--Murfreesboro, TN
470370024	1 PM10, 2 PM10 Coloc	0682	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	Nashville-Davidson--Murfreesboro, TN
470370026	Ozone	0682	+36.150556	-86.621111	PERCY PRIEST	Nashville-Davidson--Murfreesboro, TN
470370036	1 PM2.5	0682	+36.118251	-86.873547	400 DAVIDSON RD	Nashville-Davidson--Murfreesboro, TN



Tennessee's Interpretation of Ambient Air Monitors Needed to meet the 40CFR, Part 58 Requirements

Census Area Identification and Population Data			12128 Lead		42101 CO		42401 SO2		42602 NO2		44201 Ozone			81102 PM 10				88101 PM 2.5				88502 PM 2.5 Speciation		88101 or 88501 PM 2.5 Cont	
CBSA 2003 Code	Census 2000	CBSA 2003 Title (MS Areas)	Operating	Required	Operating	Required	Operating	Required	Operating	Required	Operating	2007 2009 8 Hr DV	Required	Operating	2009 24 Hr Max. 150 ug/m3	2009 Annual 50 ug/m3	Required	Operating	2007 2009 Annual DV	2007 2009 24 Hr DV 35/65 ug/m	Required	Operating	Required	Operating	Required

Local programs air monitoring report criteria summary

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representative ness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470370021	42101	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	42401	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	42602	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370011	44201	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370026	44201	1	0682	See table.	See table.	Continuous	No	See table.	DNA	See table.
470370002	81102	1	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370024	81102	1	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370024	81102	2	0682	See table.	See table.	1 in 6	No	See table.	DNA	See table.
470370023	88101	1	0682	See table.	See table.	Every Day	No	See table.	Suitable	See table.
470370023	88101	2	0682	See table.	See table.	1 in 6	No	See table.	Suitable	See table.
470370023	88502	3	0682	See table.	See table.	Continuous	No	See table.	Does Not Apply	See table.
470370036	88101	1	0682	See table.	See table.	Every Day	No	See table.	Suitable	See table.
470370023	88502	5	0682	See table.	See table.	1 in 6	No	See table.	Not suitable	See table.

Local Program Monitors Criteria Data Tables

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470370002	81102	1	0682	19900101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370011	42401	1	0682	19740301	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Dasibi 4108 EQSA-1086-061 061
470370011	42602	1	0682	19750106	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 42C RFNA-1289-074 074
470370011	44201	1	0682	19720101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370021	42101	1	0682	19720414	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	MOBILE	MICROSCALE	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 48C RFCA-0981-054 054
470370023	88101	1	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370023	88101	2	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120

Airs	Parameter	POC	REP ORG CODE	Date Sampling Began	CBSA 2003 Title	Population of CBSA 2006 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE	Sampling Instrument Name and Designation
470370023	88501	3	0682	20010301	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Approved AQI (Non-regulatory)	R & P TEOM Gravimetric 50 deg C PM2.5 VSCC w/Correction Factor 717
470370023	88502	5	0682	20020213	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Speciation (Non-regulatory)	Met One Super SASS and URG 3000N Carbon 810
470370024	81102	1	0682	19900101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370024	81102	2	0682	20000501	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	MIDDLE SCALE	HIGHEST CONCENTRATION	SLAMS	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370026	44201	1	0682	19780101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	FOREST	RURAL	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370036	88101	1	0682	19990101	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120

Tennessee's Ambient Air Monitoring Network Additional Criteria Data Tables (All state and local monitors including collocated monitors)

Airs	Co FIPS	Parameter	POC	Operating Schedule	REP ORG CODE	SLI	Latitude	Longitude	Street Address	CBSA_2003_Code	CBSA_2003_Title
470370002	037	81102	1	1 in 6	0682	L	+36.143244	-86.754611	LESTER & HART STS	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	42401	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	42602	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370011	037	44201	1	Continuous	0682	L	+36.205000	-86.744722	1015 TRINITY LANE	34980	Nashville-Davidson--Murfreesboro, TN
470370021	037	42101	1	Continuous	0682	L	+36.159167	-86.781667	810 BRODWAY	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88101	1	Every Day	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88101	2	1 in 6	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88502	3	Continuous	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370023	037	88502	5	1 in 6	0682	L	+36.176326	-86.738902	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	34980	Nashville-Davidson--Murfreesboro, TN
470370024	037	81102	1	1 in 6	0682	L	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	34980	Nashville-Davidson--Murfreesboro, TN
470370024	037	81102	2	1 in 6	0682	L	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	34980	Nashville-Davidson--Murfreesboro, TN
470370026	037	44201	1	Continuous	0682	L	+36.150556	-86.621111	PERCY PRIEST	34980	Nashville-Davidson--Murfreesboro, TN
470370036	037	88101	1	Every Day	0682	L	+36.118251	-86.873547	400 DAVIDSON RD	34980	Nashville-Davidson--Murfreesboro, TN

(615) 340-5653

Writer's Direct FAX Number:
(615) 340-2142

March 12, 2010

Mr. Jackie Waynick
Chief of Technical Services
Tennessee Air Pollution Control
Department of Environment and Conservation
9th Floor – L & C Annex
401 Church Street
Nashville, Tennessee 37243-1531

Dear Mr. Waynick:

To comply with the provisions as required by the *Code of Federal Regulations 40, Part 58*, the Metro Public Health Department, Pollution Control Division (MPHDPCD), Nashville and Davidson County Tennessee, is submitting the required information for each monitor station in this agency's ambient air monitoring network. Also, the EPA grant commitment specifies that "Each state will develop and submit for approval, a statewide ambient monitoring network design plan incorporating the changes to 40 CFR Parts 50, 53, 58 regarding the National Monitoring Strategy and the NCore network design concept. Local agencies will coordinate with the state." Therefore, the MPHDPCD is forwarding the enclosed spread sheets with the pertinent air monitoring site information so that the contents may be incorporated into the State of Tennessee Monitoring Network plan to EPA.

As indicated by the Network Evaluation Report, changes to our monitoring network for FY2009-2010 include the following:

1) Installation of a new URG 3000N Carbon in addition to the Met One Super SASS Speciation sampler at site 470370023 (Lockeland School), began sampling on 4/1/09.

According to the recent revisions of the NO2 NAAQS as per *40 CFR Parts 50 and 58 Primary National Ambient Air Quality Standards for Nitrogen Dioxide; Final Rule, Tuesday, February 9, 2010*, EPA has promulgated new NO_2 network design requirements. EPA proposed a two-tier network design composed of (1) near-road monitors which would be placed in locations of expected maximum 1-hour. NO_2 concentrations near heavily trafficked roads in urban areas and (2) monitors located to characterize areas with the highest expected NO_2 concentrations at the neighborhood and larger spatial scales. As of this date, MPHDPCD operates an approved SLAMS NO2 monitor, AQS site number 47-037-0011, located approximately 4 miles northeast of the metro Nashville inter-city. This site is located in a dense populated area with a designated specific monitoring objective as "high, population oriented surveillance". It is our intention to review the historic data from this site in support for EPA approval and concurrence as an acceptable category (2) NO2 site. Also, as to this date, MPHDPCD is reviewing traffic count documentation for the best probable near-road monitoring site selection. Also, factors presently in review such as monetary, safety, accessibility, and security will determine the final selection for a category (1) NO2 site.

Because Nashville/Davidson County has no sources that generate lead emissions of 0.5 ton/year, and in accordance to the provisions designated in the EPA CFR, November 12, 2008 Final Rule for Lead, the MPHDPCD is not required and therefore will not participate in any source-oriented lead monitoring for FY2010. We have examined each air monitoring site and have evaluated each accordingly to the requirements and provisions of the new regulations in CFR 40, Parts 50, 53, and 58. We have concluded that the number and location of the air monitors in our network comply with the CFR provisions and also contribute the best means, through assessments, to provide sufficient air quality data and information to

promote a healthier community. Also, the frequency for PM2.5 sampling is unchanged to assure that the air quality data of sufficient quantity is collected and will best represent the air quality data and information reported to the general public.

If you have any questions or comments concerning the attached spread sheets, or if you require additional information, please contact me or call at 340-5653.

Sincerely,

Mathew Grupke, Chemist
Division of Pollution Control

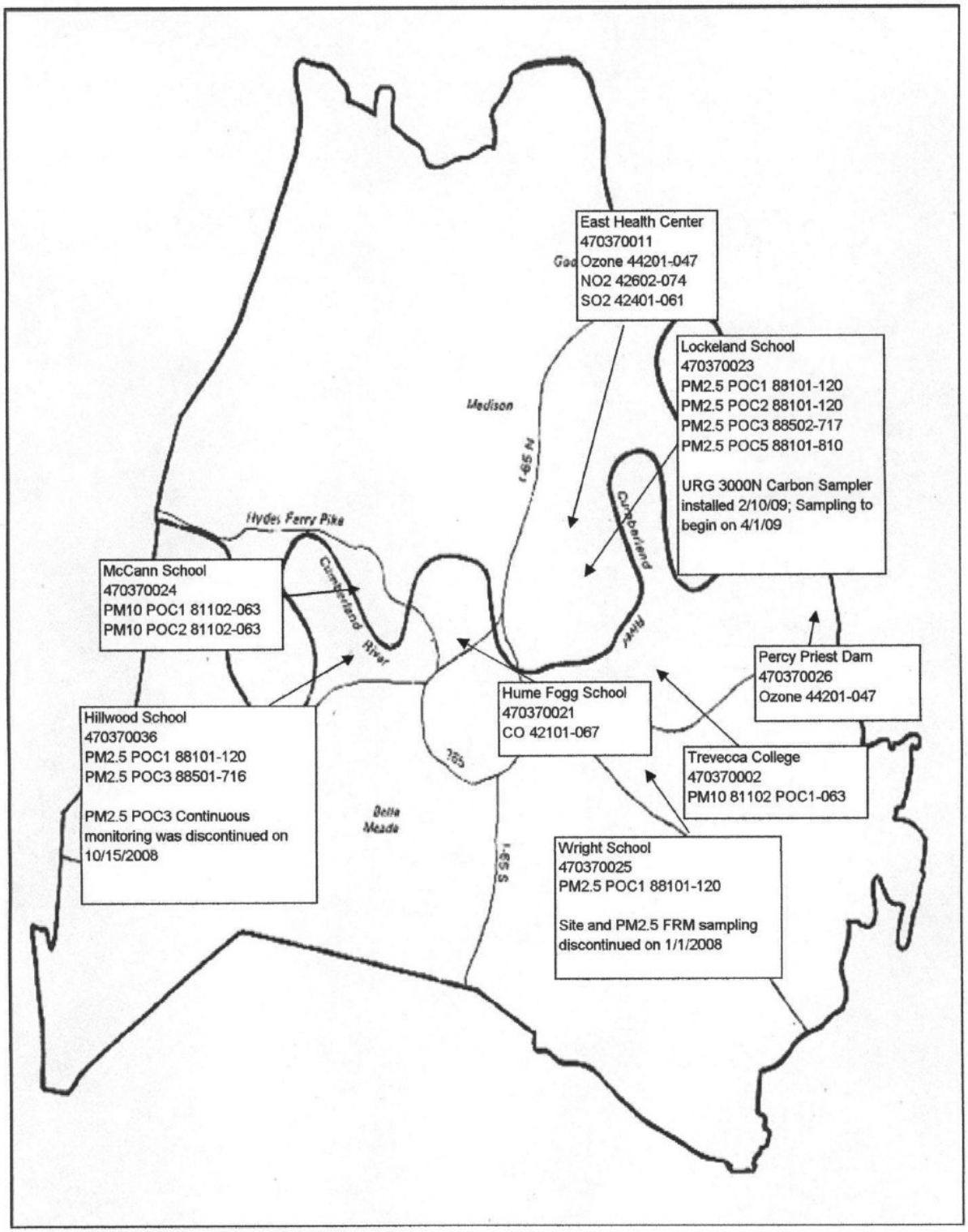
Mg/
cc: Mr. Robert Brawner

2010 Annual Ambient Monitoring Network Evaluation

I. INFORMATION FOR EXISTING NETWORK

AIRS Site Number	Street Address	Pollutant	Method Code	Specific Monitoring Objective	Spatial Scale	Meet Monitoring Objective?	NAMS Hard Copy Information Form and Photos Available?	Sampling Frequency	AQI Site?	Emergency Episode Site?	Comments
470370002	Trevecca College 333 Murfreesboro Road	$PM_{10,}$	063	Population oriented surveillance	Neighborhood	Yes	Yes	Every 6th day			▪ SLAMS
470370011	East Health Center 1015 E. Trinity Lane	▪ O_3; ▪ SO_2; ▪ NO_2;	▪ 047 ▪ 061 ▪ 074	High, population oriented surveillance	Neighborhood	Yes	Yes	▪ Continuous ▪ Continuous ▪ Continuous	▪ O_3; ▪ SO_2 ▪ NO2	▪ O_3; ▪ SO_2; ▪ NO_2	▪ O_3: NAMS ▪ SO_2: NAMS; ▪ NO_2: SLAMS
470370021	Hume Fogg School 700 Broadway	CO	054	High, mobile oriented surveillance	Micro	Yes	Yes	Continuous	CO	CO	▪ NAMS
470370023	Lockeland School 105 South 17th Street	▪ $PM_{2.5}$, POC1; ▪ $PM_{2.5}$, POC2; ▪ $PM_{2.5}$, POC3 TEOM; ▪ $PM_{2.5}$, POC5 Speciation	▪ 120 ▪ 120 ▪ 717 ▪ 810	Population oriented surveillance	Neighborhood	Yes	Yes	▪ Daily ▪ Every 6th day ▪ Continuous ▪ Every 6th day	PM 2.5		▪ SLAMS; ▪ SLAMS; ▪ SLAMS; ▪ URG 3000N Carbon Monitor installed

											2/10/09. Sampling began 4/1/09
470370024	McCann School 1300 56th Ave. North	▪ $PM_{10,}$ POC1; ▪ $PM_{10,}$ POC2	063	High, source oriented surveillance	Middle	Yes	Yes	Every 6th day		PM_{10}	▪ NAMS; ▪ SLAMS
470370026	Percy Priest Lake Stewart's Ferry Pike	O_3	047	High, background surveillance	Urban	Yes	Yes	Continuous	O_3		▪ SLAMS
470370036	Hillwood High School 400 Davidson Road	$PM_{2.5}$	120	High population oriented surveillance	Neighborhood	Yes	Yes	Daily			▪ SLAMS
Used for PM10 AQI only. No assigned site number.	Lentz Health Center 311 23rd Ave. North	$PM_{2.5}$	063			Yes		Daily	PM_{10}	PM_{10}	Used for AQI only


East Health Center
470370011
Ozone 44201-047
NO2 42602-074
SO2 42401-061
Lockeland School
470370023
PM2.5 POC1 88101-120
PM2.5 POC2 88101-120
PM2.5 POC3 88502-717
PM2.5 POC5 88101-810
URG 3000N Carbon Sampler installed 2/10/09; Sampling to begin on 4/1/09
Madison
I-65 N
Hydes Ferry Pike
McCann School
470370024
PM10 POC1 81102-063
PM10 POC2 81102-063
Cumberland River
Percy Priest Dam
470370026
Ozone 44201-047
Hume Fogg School
470370021
CO 42101-067
Hillwood School
470370036
PM2.5 POC1 88101-120
PM2.5 POC3 88501-716
PM2.5 POC3 Continuous monitoring was discontinued on 10/15/2008
Trevecca College
470370002
PM10 81102 POC1-063
Belle Meade
I-65 S
Wright School
470370025
PM2.5 POC1 88101-120
Site and PM2.5 FRM sampling discontinued on 1/1/2008

Airs	Site	Co FIPS	Parameter	POC	Operating Schedule	METHOD CODE	REP ORG CODE	SLI	Date Sampling Began	Date Sampling Ended	Latitude	Longitude	Street Address	CBSA_2003_LSAD	CBSA_2003_Code	CBSA_2003_Title	Population of CBSA 2005 Est	Population of CBSA 2000 Census	Land Use	Location Setting	Dominant Source	Measurement Scale	Monitor Objective	MONITOR TYPE		Sampling Instrument Name and Designation
470370002	470370002811021	037	81102	1	1 in 6	063	0662	L	19980101	0	+36.143244	-86.754611	LESTER & HART STS	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	81102063	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370011	470370011424011	037	42401	1	Continuous	061	0662	L	19740301	0	+36.216000	-86.744722	1015 TRINITY LANE	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	NAMS	42401061	Dasibi 4108 EQSA-1086-061 061
470370011	470370011426021	037	42602	1	Continuous	099	0662	L	19750106	0	+36.216000	-86.744722	1015 TRINITY LANE	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	42602074	Thermo Environmental Instruments 42C RFNA-1289-074 074
470370011	470370011442011	037	44201	1	Continuous	056	0662	L	19720101	0	+36.216000	-86.744722	1015 TRINITY LANE	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	NAMS	44201047	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370021	470370021421011	037	42101	1	Continuous	051	0662	L	19720414	0	+36.159167	-86.781667	810 BROADWAY	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	COMMERCIAL	URBAN AND CENTER CITY	MOBILE	MICROSCALE	HIGHEST CONCENTRATION	NAMS	42101067	Dasibi 3008 RFCA-0468-067 067
470370023	470370023881011	037	88101	1	Every Day	120	0662	L	19980101	0	+36.176326	-86.736802	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	88101120	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370023	470370023881012	037	88101	2	1 in 6	120	0662	L	19980101	0	+36.176326	-86.736802	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	88101120	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370023	4.7037E+14	037	88502	3	Continuous	717	0662	L	20010301	0	+36.176326	-86.736802	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Approved AQI (Non-regulatory)	88101702	R & P TEOM Gravimetric 50 deg C PM2.5 SCC w/Correction Factor 702
470370023	470370023885025	037	88502	5	1 in 6	820	1217	L	20020213	0	+36.176326	-86.736802	105 SOUTH 17TH ST @ LOCKELAND SCHOOL	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Speciation (Non-regulatory)	88502820	Andersen RAAS 820
470370024	470370024811021	037	81102	1	1 in 6	063	0662	L	19980101	0	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	HIGHEST CONCENTRATION	SLAMS	81102063	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370024	470370024811022	037	81102	2	1 in 6	063	0662	L	20000501	0	+36.162763	-86.854927	56TH AVE AND LOUISIANA ST	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS	81102063	Sierra-Andersen/GMW 1200 RFPS-1287-063 063
470370025	470370025881011	037	88101	1	1 in 3	120	0662	L	19980101	20080101	+36.100000	-86.734444	180 MCCALL ST.	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Non-Core	88101120	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370026	470370026442011	037	44201	1	Continuous	056	0662	L	19780101	0	+36.150556	-86.621111	PERCY PRIEST	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	FOREST	RURAL	AREA	URBAN SCALE	HIGHEST CONCENTRATION	SLAMS	44201047	Thermo Environmental Instruments 49C EQOA-0880-047 047
470370031	470370031421011	037	42101	1	Continuous	051	0662	L	19980101	0	+36.176389	-86.762222	210 NORTH 7TH STREET	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	URBAN AND CENTER CITY	MOBILE	MIDDLE SCALE	POPULATION EXPOSURE	NAMS	42101054	Thermo Environmental Instruments 49C RFCA-0881-054 054
470370036	470370036881011	037	88101	1	Every Day	120	0662	L	19980101	0	+36.118251	-86.873547	400 DAVIDSON RD	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Core	88101120	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120
470370036	4.7037E+14	037	88501	3	Continuous	716	0662	L	20060101	20080105	+36.118251	-86.873547	400 DAVIDSON RD	Metro Area	34980	Nashville-Davidson--Murfreesboro, TN	1,422,544	1,311,789	RESIDENTIAL	SUBURBAN	AREA	NEIGHBORHOOD	POPULATION EXPOSURE	SLAMS Raw Data (Non-regulatory)	88501120	Graseby Andersen RAAS2.5-300 RFPS-0598-120 120

(1) The AQS site identification number.	Parameter	POC Identifier	Reporting Org.	(2) The location, including street address and geographical coordinates.	(3) The sampling and analysis method(s) for each measured parameter.	(4) The operating schedules for each monitor.	(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.	(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.	(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM2.5 NAAQS as described in § 58.30.	(8) The MSA, CBSA, CSA or other area represented by the monitor.
470370021	42101	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370031	42101	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370011	42401	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370011	42602	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370011	44201	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370026	44201	1	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370002	81102	1	0682	See table.	See table.	1 in 6	None	See table.	Does Not Apply	See table.
470370024	81102	1	0682	See table.	See table.	1 in 6	None	See table.	Does Not Apply	See table.
470370024	81102	2	0682	See table.	See table.	1 in 6	None	See table.	Does Not Apply	See table.
470370023	88101	1	0682	See table.	See table.	Every Day	None	See table.	Acceptable for Comparison	See table.
470370023	88101	2	0682	See table.	See table.	1 in 6	None	See table.	Acceptable for Comparison	See table.
470370023	88502	3	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.
470370025	88101	1	0682	See table.	See table.	1 in 3	None	See table.	Acceptable for Comparison	See table.
470370036	88101	1	0682	See table.	See table.	Every Day	None	See table.	Acceptable for Comparison	See table.
470370036	88501	3	0682	See table.	See table.	Continuous	None	See table.	Does Not Apply	See table.