Georgia Department of Natural Resources

Environmental Protection Division

2 Martin Luther King Jr. Drive, Suite 1456, Atlanta, Georgia 30334 Judson H. Turner, Director (404) 656-4713

n.

MAY 3 0 2014

Heather McTeer Toney Regional Administrator U.S. EPA, Region 4 61 Forsyth Street, S.W. Atlanta, Georgia 30303-3104

Re: Revised Recommended Designations for 2012 PM_{2.5} National Ambient Air Quality Standard

Dear Ms. Toney:

On December 13, 2013, the Georgia Environmental Protection Division (EPD) submitted designation recommendations for the 2012 Revised Primary Annual Fine Particle National Ambient Air Quality Standard (NAAQS). In that submittal, EPD indicated that we would submit revised recommendations once 2013 $PM_{2.5}$ ambient monitoring data becomes available and is certified. This document contains those revised recommendations.

EPD evaluated all of the ambient $PM_{2.5}$ monitors that fall within Georgia as well as out-of-state monitors that are contained within multi-state CBSAs and CSAs that include Georgia. The 2013 design values for all of these monitors are below the 2012 Annual $PM_{2.5}$ NAAQS, as indicated below.

Site ID	Site Name	2013 design value (µg/m ³)
Albany, GA Co	pre Based Statistical Area	
13-095-0007	Turner Elementary School	10.9
AtlantaAthen	s-Clarke CountySandy Springs, GA Combined Statistical A	rea
13-059-0002	Fire Station #7, Athens	9.9
13-063-0091	Georgia DOT, Forest Park	11.1
13-067-0003	GA National Guard, Kennesaw	10.4
13-089-0002	2390-B Wildcat Road, Decatur (South DeKalb)	10.5
13-127-0006	Fire Station #8, Atlanta	11.6
13-125-0002	Gwinnett Technical College, Lawrenceville	10.1
13-139-0003	Boys and Girls Club, Gainesville	9.5
13-223-0003	King Farm, Rockmart (Yorkville)	9.3
Augusta-Richn	nond County, GA-SC Core Based Statistical Area	
13-245-0091	Bungalow Road Elem School, Augusta	10.5
45-037-0001	660 Woodyard Road, Trenton SC	9.3
Brunswick, GA	Core Based Statistical Area	
13-127-0006	Risley Middle School, Brunswick	8.2
Chattanooga-C	leveland-Dalton, TN-GA-AL Combined Statistical Area	
13-295-0002	601 Maple St, Rossville	10.5
47-065-0031	1517 Tombras Avenue, East Ridge TN	10.1
47-065-1011	Soddy Daisy H.S., Chattanooga TN	9.8
47-065-4002	Riverside Substation, Chattanooga TN	10.0
47-107-1002	Saint Mark AME Zion Church, Athens TN	9.5
Columbus-Aub	urn-Opelika, GA-AL Combined Statistical Area	
01-113-0001	St. Patrick Catholic Church, Phenix City AL	11.2
13-215-0001	Muscogee City Health Department, Columbus	10.8
13-215-0008	Columbus Airport, Columbus	10.5
13-215-0011	Cusseta Road Elementary School, Columbus	10.7

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Site ID	Site Name	2013 design value (μg/m³)
Macon-Warner	Robins, GA Combined Statistical Area	
13-021-0007	Allied Chemical, Macon	11.8
13-021-0012	Georgia Forestry Commission, Macon	9.4
13-153-0001	Warner Robins Air Force Base, Warner Robins	9.9
Rome Core Bas	sed Statistical Area	
13-115-0003	Coosa Elem. School, Rome	10.8
Savannah-Hine	sville-Statesboro, GA Combined Statistical Area	
13-051-0091	Mercer Middle School, Savannah	10.2
Valdosta GA Co	ore Based Statistical Area	
13-185-0003	S.L. Mason Elementary, Valdosta	8.9
Monitors not Lo	cated in a CBSA or CBSA	
13-319-0001	Gordon	11.2
13-303-0001	Sandersville	10.2

This data is taken from U.S. EPA's Air Quality System (AQS). An AQS 2013 Design Value Report is contained in attachment B and is summarized for the purpose of designations for the 2012 PM2.5 NAAQS in attachment A.

The attached table provides the Georgia EPD's revised recommendations for the designation status of each county in Georgia. It is recommended that all counties in Georgia be designated as "unclassifiable/attainment".

Please note as indicated in attachments A and B that, except for the Decatur (South DeKalb) site, all Georgia monitors have 2013 annual design values that do not meet the completeness criteria (75% data capture) found in 40 CFR 50 Appendix N. This is due in large part to data completeness issues during first quarter of 2011. The procedures specified in 40 CFR 50 Appendix N sections 4.1(b) and (c)(ii) have been performed and result in valid 2013 design values for all of the monitors in the Chattanooga CSA, Macon CSA, and Rome CBSA, and for the monitor in Gordon. The results of the determinations for these four areas are discussed in Attachment A. EPD is conducting further analyses of the monitors in the remaining areas. These analyses will be submitted to EPA at a later date.

Please contact Keith Bentley at (404) 363-7016 should you have any questions regarding this matter.

Sincerely,

Judson H. Turner Director

JHT: JPJ Attachments

c: Keith Bentley, Air Protection Branch Chief Jimmy Johnston, Planning & Support Program Manager

County Name	Designation	
		_
Appling	Unclassifiable/Attainment	
Atkinson	Unclassifiable/Attainment	
Bacon	Unclassifiable/Attainment	_
Baker	Unclassifiable/Attainment	
Baldwin	Unclassifiable/Attainment	
Banks	Unclassifiable/Attainment	
Barrow	Unclassifiable/Attainment	
Bartow	Unclassifiable/Attainment	
Ben Hill	Unclassifiable/Attainment	
Berrien	Unclassifiable/Attainment	
Bibb	Unclassifiable/Attainment	
Bleckley	Unclassifiable/Attainment	
Brantley	Unclassifiable/Attainment	
Brooks	Unclassifiable/Attainment	
Bryan	Unclassifiable/Attainment	
Bulloch	Unclassifiable/Attainment	
Burke	Unclassifiable/Attainment	
Butts	Unclassifiable/Attainment	
Calhoun	Unclassifiable/Attainment	1
Camden	Unclassifiable/Attainment	1
Candler	Unclassifiable/Attainment	1
Carroll	Unclassifiable/Attainment	1
Catoosa	Unclassifiable/Attainment	1
Charlton	Unclassifiable/Attainment	1
Chatham	Unclassifiable/Attainment	1
Chattahoochee	Unclassifiable/Attainment	1
Chattooga	Unclassifiable/Attainment	1
Cherokee	Unclassifiable/Attainment	1
Clarke	Unclassifiable/Attainment	1
Clay	Unclassifiable/Attainment	1
Clayton	Unclassifiable/Attainment	1
Clinch	Unclassifiable/Attainment	
Cobb	Unclassifiable/Attainment	1
Coffee	Unclassifiable/Attainment	
Colquitt	Unclassifiable/Attainment	
Columbia	Unclassifiable/Attainment	
Cook	Unclassifiable/Attainment	
Coweta	Unclassifiable/Attainment	
Crawford	Unclassifiable/Attainment	
Crisp	Unclassifiable/Attainment	
Dade	Unclassifiable/Attainment	
Dawson	Unclassifiable/Attainment	

County Name	Designation	
Desetur	Linglogoifichte/Attainment	
Decatur		
DeKalb		
Dodge		
Dooly	Unclassifiable/Attainment	
Dougherty	Unclassifiable/Attainment	
Douglas	Unclassifiable/Attainment	
Early	Unclassifiable/Attainment	
Echols	Unclassifiable/Attainment	
Effingham	Unclassifiable/Attainment	
Elbert	Unclassifiable/Attainment	
Emanuel	Unclassifiable/Attainment	
Evans	Unclassifiable/Attainment	
Fannin	Unclassifiable/Attainment	
Fayette	Unclassifiable/Attainment	
Floyd	Unclassifiable/Attainment	
Forsyth	Unclassifiable/Attainment	
Franklin	Unclassifiable/Attainment	
Fulton	Unclassifiable/Attainment	
Gilmer	Unclassifiable/Attainment	
Glascock	Unclassifiable/Attainment	
Glynn	Unclassifiable/Attainment	
Gordon	Unclassifiable/Attainment	
Grady	Unclassifiable/Attainment	
Greene	Unclassifiable/Attainment	
Gwinnett	Unclassifiable/Attainment	
Habersham	Unclassifiable/Attainment	
Hall	Unclassifiable/Attainment	
Hancock	Unclassifiable/Attainment	
Haralson	Unclassifiable/Attainment	
Harris	Unclassifiable/Attainment	
Hart	Unclassifiable/Attainment	
Heard	Unclassifiable/Attainment	
Henry	Unclassifiable/Attainment	
Houston	Unclassifiable/Attainment	
Irwin	Unclassifiable/Attainment	
Jackson	Unclassifiable/Attainment	
Jasper	Unclassifiable/Attainment	
Jeff Davis	Unclassifiable/Attainment	
Jefferson	Unclassifiable/Attainment	
Jenkins	Unclassifiable/Attainment	
Johnson	Unclassifiable/Attainment	
Jones	Unclassifiable/Attainment	

County Name	Designation
Lamar	Unclassifiable/Attainment
Lanier	Unclassifiable/Attainment
Laurens	Unclassifiable/Attainment
Lee	Unclassifiable/Attainment
Liberty	Unclassifiable/Attainment
Lincoln	Unclassifiable/Attainment
Long	Unclassifiable/Attainment
Lowndes	Unclassifiable/Attainment
Lumpkin	Unclassifiable/Attainment
McDuffie	Unclassifiable/Attainment
McIntosh	Unclassifiable/Attainment
Macon	Unclassifiable/Attainment
Madison	Unclassifiable/Attainment
Marion	Unclassifiable/Attainment
Meriwether	Unclassifiable/Attainment
Miller	Unclassifiable/Attainment
Mitchell	Unclassifiable/Attainment
Monroe	Unclassifiable/Attainment
Montgomery	Unclassifiable/Attainment
Morgan	Unclassifiable/Attainment
Murray	Unclassifiable/Attainment
Muscogee	Unclassifiable/Attainment
Newton	Unclassifiable/Attainment
Oconee	Unclassifiable/Attainment
Oglethorpe	Unclassifiable/Attainment
Paulding	Unclassifiable/Attainment
Peach	Unclassifiable/Attainment
Pickens	Unclassifiable/Attainment
Pierce	Unclassifiable/Attainment
Pike	Unclassifiable/Attainment
Polk	Unclassifiable/Attainment
Pulaski	Unclassifiable/Attainment
Putnam	Unclassifiable/Attainment
Quitman	Unclassifiable/Attainment
Rabun	Unclassifiable/Attainment
Randolph	Unclassifiable/Attainment
Richmond	Unclassifiable/Attainment
Rockdale	Unclassifiable/Attainment
Schley	Unclassifiable/Attainment
Screven	Unclassifiable/Attainment
Seminole	Unclassifiable/Attainment
Spalding	Unclassifiable/Attainment

County Name	Designation											
Stephens	Unclassifiable/Attainment											
Stewart	Unclassifiable/Attainment											
Sumter	Unclassifiable/Attainment											
Talbot	Unclassifiable/Attainment											
Taliaferro	Unclassifiable/Attainment											
Tattnall	Unclassifiable/Attainment											
Taylor	Unclassifiable/Attainment											
Telfair	Unclassifiable/Attainment											
Terrell	Unclassifiable/Attainment											
Thomas	Unclassifiable/Attainment											
Tift	Unclassifiable/Attainment											
Toombs	Unclassifiable/Attainment											
Towns	Unclassifiable/Attainment											
Treutlen	Unclassifiable/Attainment											
Troup	Unclassifiable/Attainment											
Turner	Unclassifiable/Attainment											
Twiggs	Unclassifiable/Attainment											
Union	Unclassifiable/Attainment											
Upson	Unclassifiable/Attainment											
Walker	Unclassifiable/Attainment											
Walton	Unclassifiable/Attainment											
Ware	Unclassifiable/Attainment											
Warren	Unclassifiable/Attainment											
Washington	Unclassifiable/Attainment											
Wayne	Unclassifiable/Attainment											
Webster	Unclassifiable/Attainment											
Wheeler	Unclassifiable/Attainment											
White	Unclassifiable/Attainment											
Whitfield	Unclassifiable/Attainment											
Wilcox	Unclassifiable/Attainment											
Wilkes	Unclassifiable/Attainment											
Wilkinson	Unclassifiable/Attainment											
Worth	Unclassifiable/Attainment											

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AQS Number ¹	CSA or CBSA/Monitor	2011	2012	2013	2011-2013
		Value	Value	Value	Design
					Value
13-095-0007	Albany CBSA	12.1*	10.6*	10.0	10.9
Atlanta CSA			学生学生		
13-059-0002	Athens CSA	10.7*	9.3*	9.7	9.9
13-063-0091	Forest Park	12.7*	10.8	9.7	11.1
13-067-0003	Kennesaw	11.5*	10.1	9.6	10.4
13-089-0002	South DeKalb	12.0	10.2	9.3	10.5
13-121-0039	Fire Station #8	13.1*	11.3*	10.4*	11.6
13-135-0002	Gwinnett	11.0*	10.3	8.9	10.1
13-139-0003	Gainesville	10.7*	9.3	8.5	9.5
13-223-0003	Yorkville	10.7*	8.8	8.5	9.3
Augusta CBSA					
13-245-0091	Bungalow Rd. Elementary	11.7*	10.4	9.2	10.5
45-037-0001	Trenton (SC)	10.4	8.9	8.7	9.3
13-127-0006	Brunswick CBSA	8.9*	7.5*	8.2*	8.2
Chattanooga CSA					
13-295-0002	Rossville	10.8*	10.5	10.0*	10.5
47-065-0031	East Ridge (TN)	11.1	10.1	9.3	10.1
47-065-1011	Soddy Daisy (TN)	10.3	10.0	9.2	9.8
47-065-4002	Riverside (TN)	11.1	10.0	8.9	10.0
47-107-1002	Athens (TN)	10.6	9.1*	8.8	9.5
Columbus CSA				松 温温温 爱	后心:北京,武法
13-215-0001	Health Department	11.8*	10.8*	9.7	10.8
13-215-0008	Airport	11.4*	10.2	9.9	10.5
13-215-0011	Cusseta Rd. Elementary	11.9*	10.4	9.7	10.7
01-113-0001	Phenix City (AL)	12.3	11.4	10.0	11.2
13-319-0001	Gordon	12.9*	10.9	9.8	11.2
Macon CSA					"堂远。""雪"
13-021-0007	Allied Chemical	14.2*	11.3	10.0	11.8
13-021-0012	Georgia Forestry	11.0*	9.0	8.2	9.4
	Commission				
13-153-0001	Warner Robins	11.4*	9.5	8.7	9.9
13-115-0003	Rome CBSA	12.5*	10.6	9.4	10.8
13-303-0001	Sandersville	11.3*	9.8	9.4	10.2
13-051-0091	Savannah CSA	12.2*	9.2*	9.0	10.2
13-185-0003	Valdosta CBSA	9.7*	8.6*	8.5	8.9

¹ The following monitors ceased operation at the end of 2012: Atlanta CSA: 13-067-0004, Powder Springs; 13-089-2001, Doraville; 13-121-0032, E. Rivers; Augusta CBSA: 13-245-0005, Medical College of Georgia; Savannah CSA: 13-051-0017, Market Street

ATTACHMENT B

AQS 2013 DESIGN VALUE REPORT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Jser ID: JJJ				DE	SIGN V	ALUE RE	PORT						
Report Request ID:	1214211			R	eport Code:	A	MP480						May. 16, 2014
					GEOG	RAPHI	C SELECT	TIONS					
	Tribal											EPA	
	Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	Region	
		13											
		01	113										
		45	037										
		47	065										
		47	107										
PRO	TOCOL SELECTIONS			1									
Parameter									.X.				
Classification	Parameter Me	thod	Duration										
DESIGN VALUE	88101			1									
	SELECTED OPTIONS	;											
Option Typ	e			Option	n Value								
SINGLE EVENT PRO	DCESSING	EX	CLUDE REG	JIONALL	Y CONCURRED	EVENTS	5						
WORKFILE DELI	MITER				,								
USER SITE MET	ADATA			STREET	ADDRESS								
MERGE PDF F	ILES			Y	ES								
QUARTERLY DATA IN	WORKFILE			1	NO								
AGENCY ROL	LE			P	QAO								
DA	TE CRITERIA											APPLICABLE STANDARDS	
Start Date	End Dat	e										Standard Description	
2013	2013									-		PM25 24-hour 2006	
												PM25 Annual 2006	

Selection Criteria Page 1

Report Date: May. 16, 2014

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page 1 of 8

Report Date: May. 16, 2014

Pollutant: Site-LevelP	Des	ign val	ue rea	ar: 20	13														
Standard Units: Microg: NAAQS Standard: PM25 24	REP	ORT EXC	LUDES	MEASUI	REMENT	s WIJ	TH REGI	ONALLY	CONCU	RRED E	VENT	FLAGS.							
Statistic: Annual Statistic: Annual	Weigl 98th	hted Perc	Mean	Lev Lev	el: 15 el: 35			Stat	e Nam	e: Al	Labama	à							
	2013							2012					201	1		24-Hour Annual			
<u>Site ID</u> /	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	. Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
STREET ADDRESS	Days	Qrtrs	Perctil	Mean	Eval	Days	Ortrs	Perctil	Mean	_Eval	Days	Ortrs	Perctil	Mean	Eval	Value	Ind.	Value	Ind.
01-113-0001	122	4	22.0	10.0	Y	120	4	24.2	11.4	Y	121	4	29.5	12.3		25	Y	11.2	Y
St. Patrick Catholic Church	, BRO	AD ST	REET																

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

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Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page 2 of 8

Report Date: May. 16, 2014

Pollutant: Site-LevelPM2.5 - Local Conditions(88101) Design Value Year: 2013 Standard Units: Micrograms/cubic meter (LC) (105) REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS. NAAOS Standard: PM25 24-hour 2006 / PM25 Annual 2006 Statistic: Annual Weighted Mean Level: 15 State Name: Georgia Statistic: Annual 98th Percentile Level: 35 2013 2012 2011 24-Hour Annual Site ID / Cert& | Cred. Comp. 98th Cert& Wtd. Cred. Comp. 98th Wtd. Cred. Comp. 98th Wtd. Cert& |Design Valid | Design Valid STREET ADDRESS _____ Eval | Days Ortrs Perctil Mean____ Eval Eval |Value Value Ind. Days Ortrs Perctil Mean Days Ortrs Perctil Mean Ind. 13-021-0007 342 20.5 10.0 Y 348 24.5 11.3 Y 316 29.7* 14.2* 4 4 3 Y 25 N 11.8 N Allied Chemical, 600 Guy Paine Road, Macon, Georgia 31206 13-021-0012 115 4 18.3 8.2 Y 109 4 18.2 9.0 Y 104 3 23.9* 11.0* Y 20 N 9.4 N Georgia Forestry Commission, 5645 Riggins Mill Road, Dry Branch, Georgia, 31020 13-051-0017 104 23.8 10.0 Y 97 3 42.8 11.7* Y 33 N 10.8 N 4 402 Market Street, Savannah, Georgia, 31408 13-051-0091 106 4 17.8 9.0 Y 95 2 20.3* 9.2 * Y 92 3 44.6 12.2* Y 28 N 10.2 N Mercer Middle School, 201 Rommel Avenue, Savannah, Georgia 31408 13-059-0002 100 4 28.0 9.7 Y 101 Y 101 23.5* 10.7* 9.9 N 3 16.4* 9.3 * 3 Y 23 N FIRE STATION #7, 2350 BARNETT SHOALS RD, ATHENS, GA 30603 13-063-0091 116 4 18.1 9.7 Y 116 4 20.8 10.8 Y 102 3 25.5* 12.7* Y 21 N 11.1 N Georgia DOT, 25 Kennedy Drive, Forest Park, GA 30297 13-067-0003 347 19.5 4 9.6 Y 340 4 18.9 10.1 Y 311 3 24.5* 11.5* Y 21 N 10.4 N GA National Guard, 1901 McCollum Parkway, Kennesaw, Georgia, 30144 13-067-0004 119 4 17.5 9.8 Y 105 3 24.0* 11.3* Y 21 N 10.6 N Aquatic Center, 3675 Macland Road, Powder Springs, Georgia, 30127 9.3 13-089-0002 365 4 18.7 Y 358 19.5 Y 356 Y 21 Y 10.5 Y 4 10.2 4 23.4 12.0 2390-B Wildcat Road, Decatur GA 30034 13-089-2001 332 4 17.6 10.1 Y 313 3 24.5* 11.6* Y 21 N 10.8 N Doarville Health Center, 3760 Park Avenue, Doraville, Georgia 30340 13-095-0007 364 4 25.7 10.0 Y 244 1 24.9* 10.6* N 312 3 28.8* 12.1* Y 26 N 10.9 N Turner Elementary School, 2001 Leonard Ave, Albany, Georgia, 31705

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
Annual Values not meeting completeness criteria are marked with an asterisk ('*').

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Pollutant: Site-LevelPN	Desi	Design Value Year: 2013																			
Standard Units: Microg:		REPORT EXCLIDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS																			
NAAQS Standard: PM25 24	4-hou	r 200	6 / PM2	25 Annu	al 200	06															
Statistic: Annual	Weig	hted	Mean	Lev	el: 15					-											
Statistic: Annual	98th	Perc	entile	Lev	el: 35			State Name: Geo					eorgra								
			201	3		1		201	2		1		201	1		24-H	our	Annu	al		
Site ID /	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid		
STREET ADDRESS	Days	Qrtrs	Perctil	Mean	Eval	Days	Ortrs	Perctil	Mean	Eval	Days	Qrtrs	Perctil	Mean	Eval	Value	Ind.	Value	Ind.		
13-115-0003	318	4	18.7	9.4	Y	308	4	20.3	10.6	У	297	3	25.8*	12.5*	Y	22	N	10.8	N		
COOSA ELEM.SCHOOL, HWY.20,	ROME,	GA 30	165																		
13-121-0032					ł	356	4	19.8	10.2	Y	317	З	22.9*	11.7*	Y	21	N	10.9	N		
E RIVERS SCH 8 PEACHTREE BA	TTLE A	VE NW	, ATLANTA	A, GA																	
13-121-0039	105	3	20.4*	10.4	۲ ۲	96	з	20.2*	11.3*	Y	98	3	26.8*	13.1*	Y	22	N	11.6	N		
Fire Station #8, 1711 Marie	tta Bl	vd, A	tlanta, (Georgia,	30318																
13-127-0006	96	2	18.7*	8.2	* Y	66	0	14.5*	7.5 *	N	74	l	26.9*	8.9*	N	20	N	8.2	N		
RISLEY MIDDLE SCHOOL, 2900	ALBANY	ST.,	BRUNSWIC	K, GA 31	520																
13-135-0002	116	4	18.3	8.9	Y	119	4	20.0	10.3	Y	99	3	25.9*	11.0*	Y	21	N	10.1	N		
Gwinnett Technical College,	5150	Sugar	loaf Parl	kway, La	wrence	ville,	Georg	ia, 3004	3												
13-139-0003	108	4	16.9	8.5	Y	114	4	16.6	9.3	Y	105	3	24.8*	10.7*	Y	19	N	9.5	N		
Boys and Girls Club, 1 Posi	tive I	Place,	Gainesv	ille, Ge	eorgia,	30501															
13-153-0001	118	4	18.3	8.7	Y	114	4	19.4	9.5	Y	102	з	22.9*	11.4*	Y	20	N	9.9	N		
Warner Robins Air Force Bas	se, Mer	norial	Park, 8	00 S. 1	st St, I	Warner	Robins	s, Georg	ia 3108	8											
13-185-0003	106	4	19.1	8.5	Y	103	3	14.4*	8.6 *	۲ ۲	81	з	28.1*	9.6*	N	21	N	8.9	N		
S.L. Mason Elementary School	01, 823	1 West	Gordon	Street,	Valdos	ta, Ge	eorgia,	31601													
13-215-0001	120	4	20.0	9.7	Y	104	3	24.0*	10.8 *	* Y	103	3	24.2*	11.8*	Y	23	N	10.8	N		
Muscogee City Health Depart	ment,	1958	8th Aven	ue, Coli	umbus,	Georgi	ia, 319	04													
13-215-0008	84	4	22.0	9.9	Y	58	4	20.4	10.2	Y	52	з	27.3*	11.4*	Y	23	N	10.5	N		
Columbus Airport, 3100 Thru	way D	rive,	Columbus	, Georg	ia, 319	09															
13-215-0011	116	4	26.8	9.7	Y	114	4	27.5	10.4	Y	104	3	26.2*	11.9*	Y	27	N	10.7	N		
Cusseta Road Elementary Sch	nool,.	4150 C	usseta R	oad, Co	lumbus,	Georg	gia, 31	903													

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

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Report Date: May. 16, 2014

Pollutant: Site-LevelPM2.5 - Local Conditions (88101)							Des:	ign Val	ue Yea	ar: 20	13								
Standard Units: Microg	rams/	cubic	meter	(LC) (:	105)		REPO	ORT EXC	TIMES	MEASU	EMEN	rs wr	TH REGT	ONAT.T.Y	CONCU	TT CIAR	ENT F	TAGS	
NAAQS Standard: PM25 2	4-hou	r 200	6 / PM2	25 Anni	ual 20	06		oni dite	10010			10 111	in nuor	United 1	001100			Lico.	
Statistic: Annual	Weig	hted	Mean	Lev	rel: 15	5		category and											
Statistic: Annual	98th	Perc	entile	Lev	rel: 35	5		Stat	e Nam	e: Ge	eorgia	a							
	1		201	3		L		201	2		1		201	1		24-H	7117	Annual	
Site ID /	Cred.	Comp.	98th	Wtd.	Cert&	Cred	. Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
STREET ADDRESS	Days	Qrtrs	Perctil	Mean	Eval	Days	Qrtrs	Perctil	Mean	Eval	Days	Qrtrs	Perctil	Mean	Eval	Value	Ind.	Value	Ind.
13-223-0003	111	4	19.1	8.5	Y	113	4	17.1	8.8	Y	104	3	22.4*	10.7*	Y	20	N	9.3	N
King Farm, 160 Ralph King H	Path, H	Rockma	rt, Georg	gia, 30	153														
13-245-0005					*	107	4	22.7	10.8	Y	101	з	23.6*	12.1*	Y	23	N	11.4	N
Medical College of Georgia,	Goss	Lane,	Augusta	, GA, 3	0901														
13-245-0091	111	4	17.7	9.2	Y	109	4	22.0	10.4	Y	99	3	27.6*	11.7*	Y	22	N	10.5	N
Bungalow Road Elem School,	2216 1	BUNGAL	OW RD, A	UGUSTA	GA 3090	6													
13-295-0002	95	3	22.9*	10.0	* Ү	104	4	19.0	10.5	Y	98	з	24.5*	10.8*	Y	22	N	10.5	N
601 Maple St, Lot#6, Rossvi	ille G	A 3074	1																
13-303-0001	110	4	21.8	9.4	Y	107	4	20.7	9.8	Y	101	з	27.2*	11.3*	Y	23	N	10.2	N
Washington County Health De	epartm	ent, 2	01 Morni:	ngside	Drive,	Sander	sville	, Georgi	a 3108:	2									
13-319-0001	105	4	21.6	9.8	Y	108	4	22.3	10.9	Y	101	з	24.7*	12.9*	Y	23	N	11.2	N
GORDON, GA 105 RAILROAD ST,	GORDO	N, GA	31031																

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
Annual Values not meeting completeness criteria are marked with an asterisk ('*').

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Report Date: May. 16, 2014

Pollutant: Site-LevelP	M2.5 ·	- Local Cond	iltions (88101	.)	Des	ign Val	ue Yea	ar: 20.	13								
Standard Units: Microg		REPO	REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVEN										FLAGS.					
NAAQS Standard: PM25 2	4-hou:	r 2006 / PM:)6	1000000														
Statistic: Annual	Weigl	hted Mean	Leve	1: 15			6 b c b				· · · · · · · ·							
Statistic: Annual	98th	Percentile	Leve	1: 35			Stat	ce Nam	e: Sc	buth (aroll	Ina						
			201	2		1		201	.1		24-Hour Annual							
Site ID /	Cred.	Comp. 98th	Wtd. C	ert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
STREET ADDRESS	Days	Ortrs Perctil	Mean _	Eval	Days	Ortrs	Perctil	Mean	Eval	Days	Ortrs	Perctil	Mean	Eval	Value	Ind.	Value	Ind.
45-037-0001	115	4 19.2	8.7		113	4	16.5	8.9	Y	111	4	22.8	10.4		20	Y	9.3	Y
660 WOODYARD ROAD [Trenton]																		

....

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

....

100000

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Report Date: May. 16, 2014

Pollutant: Site-LevelP	M2.5	- Loc	cal Cond	litions	5(8810	1)	Des	ign Val	ue Yea	ar: 20	13								
Standard Units: Microg:	rams/	cubic	meter	(LC) (2	L05)		REP	ORT EXC	LIDES	MEASU	EMEN	rs wra	TH REGI	ONALLY	CONCU	RRED EV	ENT I	LAGS.	
NAAQS Standard: PM25 24	4-hou	r 200	06 / PM2	25 Anni	al 20	06													
Statistic: Annual	Weig	hted	Mean	Lev	el: 15	5													
Statistic: Annual	98th	Perc	centile	Lev	el: 35	5		Stat	e Nam	e: Te	ennes	see							
	E.		201	3		T.		201	2		É		201	1		24-H	our	Annu	al
Site ID /	Cred.	Comp.	98th	Wtd.	Cert&	Cred	. Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
STREET ADDRESS	Days	Qrtrs	Perctil	Mean	_Eval	Days	Qrtrs	Perctil	Mean	Eval	Days	Ortrs	Perctil	Mean	Eval	Value	Ind.	Value	Ind.
47-065-0031	118	4	20.0	9.3	S	122	4	18.3	10.1	Y	106	4	23.9	11.1	S	21	Y	10.1	Y
1517 TOMBRAS AVENUE, EAST R	LIDGE																		
47-065-1011	61	4	15.5	9.2	S	60	4	21.7	10.0	Y	61	4	21.1	10.3	S	19	Y	9.8	Y
SODDY DAISY H.S. 00618 SEQ	HAYOU	RD																	
47-065-4002	122	4	18.7	8.9	S	120	4	16.9	10.0	Y	115	4	23.0	11.1	S	20	Y	10.0	Y
RIVERSIDE SUBSTATION 911 S	SISKIN	DR																	
47-107-1002	108	4	16.6	8.8	S	110	3	17.6*	9.1	* S	106	4	24.9	10.6	Y	20	N	9.5	N
SAINT MARK AME ZION CHURCH,	707 1	NORTH	JACKSON	ST. Ath	ens TN	37303													

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
Annual Values not meeting completeness criteria are marked with an asterisk ('*').

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Report Date: May. 16, 2014

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
м	The monitoring organization has revised data from this monitor since the
	most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required
	summary reports, but the certifying agency and/or EPA has determined
	that issues regarding the quality of the ambient concentration data cannot
	be resolved due to data completeness, the lack of performed quality
	assurance checks or the results of uncertainty statistics shown in the
	AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required
	summary reports. A value of "S" conveys no Regional assessment regarding
	data quality per se. This flag will remain until the Region provides an "N" or
	"Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification
	letter and summary reports for this monitor even though the due date has
	passed, or the state's certification letter specifically did not apply the
	certification to this monitor.
x	Certification is not required by 40 CFR 58.15 and no conditions apply to be
	the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no
	unresolved reservations about data quality (after reviewing the letter, the
	attached summary reports, the amount of quality assurance data
	submitted to AQS, the quality statistics, and the highest reported
	concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

- 2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
- 3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page 8 of 8

This attachment addresses data completeness issues for monitor data used in determining 2013 design values (DVs) contained in the Georgia Environmental Protection Division's (EPD's) revised 2012 annual PM_{2.5} National Ambient Air Quality Standard (NAAQS) designation recommendations for four areas: Chattanooga CSA, Gordon, Macon CSA, and Rome CBSA.

Section 4.1(b) of 40 CFR 50 Appendix N states the following regarding data completeness:

Three years of valid annual means are required to produce a valid annual $PM_{2.5}$ NAAQS DV. A year meets data completeness requirements when quarterly data capture rates for all four quarters are at least 75 percent. However, years with at least 11 creditable samples in each quarter shall also be considered valid if the resulting annual mean or resulting annual $PM_{2.5}$ NAAQS DV (rounded according to the conventions of section 4.3 of this appendix) is greater than the level of the applicable primary or secondary annual $PM_{2.5}$ NAAQS.

All of the monitors in Georgia or in neighboring states that share CSAs or CBSAs with Georgia have annual $PM_{2.5}$ NAAQS DVs below the level of the annual $PM_{2.5}$ NAAQS (12.0 µg/m³). Therefore, the applicable provision in the last sentence of section 4.1(b) would be years with an annual mean greater than the annual $PM_{2.5}$ NAAQS.

For monitors that do not meet the data completeness requirements of section 4.1(b), appendix N provides for the use of the "maximum quarterly value data substitution test" found in section 4.1(c)(ii) when the annual design value is below the NAAQS:

An annual PM2.5 NAAQS DV that is equal to or below the level of the NAAQS can be validated if it passes the maximum quarterly value data substitution test. This type of data substitution is permitted only if there is at least 50 percent data capture in each quarter that is deficient of 75 percent data capture in each of the three years under consideration. Data substitution will be performed in all quarter periods that have less than 75 percent data capture but at least 50 percent data capture. If any quarter has less than 50 percent data capture then this substitution test cannot be used.

Procedure: Identify for each deficient quarter (i.e., those with less than 75 percent but at least 50 percent data capture) the highest reported daily value for that quarter, excluding state-flagged data affected by exceptional events which have been approved for exclusion by the Administrator, looking across those three quarters of all three years under consideration. If after substituting the highest reported daily PM2.5 value for a quarter for all missing daily data in the matching deficient quarter(s) (i.e., to make those quarters 100 percent complete), the procedure yields a recalculated annual PM2.5 NAAQS test DV (TDVmax) that is less than or equal to the level of the standard, then the annual PM2.5 NAAQS DV is deemed to have passed the diagnostic test and is valid, and the annual PM2.5 NAAQS is deemed to have been met in that 3-year period.

The 2013 Design Value Report included in attachment C indicates that all of the monitors in Georgia, except for the South DeKalb monitor in Decatur, and the monitor in Athens, Tennessee, do not meet 75 percent data capture for one or more quarters included in 2013 three-year design values. EPD used the following process to determine if a 2013 (or 2012) design value is considered "valid" in accordance with 40 CFR 50 Appendix N:

- 1. Did the monitor satisfy the 75% data recovery requirement for all quarters in the 3-year design value?
 - a. If "yes", the 3-year design value is valid.
 - b. If "no", go to step 2.
- 2. Is the annual mean for the year of the incomplete quarter (less than 75% data capture) above the level of the NAAQS (12.0 μ g/m³)?
 - a. If "yes" to question 2, does each quarter in the year in question have at least 11 samples?
 - i. If "yes" to question 2.a., the annual mean for that year is valid
 - ii. If "no" to question 2.a., proceed to step 3.
 - b. If "no" to question 2, proceed to step 3.

(It should be noted that only calendar year 2011 had annual beans above the level of the NAAQS. Thus step 2 was only carried out for monitors that only had incomplete data (less than 75% capture) in 2011.)

- 3. Do all of the quarters included in the 3-year design value have at least 50% data capture?
 - a. If "yes" to question 3, conduct maximum quarterly value data substitution test.
 - i. Is result of maximum quarterly value data substitution test less than or equal to level of NAAQS (12.0 μg/m³)?
 - 1. If "yes" to question 3.a.i., 3-year design value is valid.
 - 2. If "no" to question 3.a.i., 3-year design value is not valid.
 - b. If "no" to question 3, 3-year design value is not valid.

It is important to note that all of the Georgia monitors, except for South DeKalb², have incomplete data for the first quarter of 2011. This was due to circumstances out of EPD's control that resulted from a snow and ice storm from January 9th through 11th, 2011. The storm caused problems with the power and environmental control systems for the EPD Laboratory which lost power on and off during the following week. The systems were brought on line by Friday, January 14th; however, the weighing rooms could not be stabilized until February 2nd, 24 days after the storm began. In order to meet Federal

² A continuous FEM monitor was located at the South DeKalb site during the incident. This FEM data was substituted for missing FRM data resulting in a complete data set for first quarter, 2011.

ambient monitor sampling deadlines, both pre- and post-sample weighing had to be conducted during this period. Furthermore, samples could not have been prepared or taken through the preparation process at another laboratory (commercial, Federal, State or academic) and still meet Federal sampling requirements. A number of data analysis studies were conducted to determine the sample validity status. These studies included a correlation analysis between our lab (Rossville) and Chattanooga, Tennessee sites (Soddy Daisy, Tombras and Siskin Drive), a statewide correlation test between the affected Federal Reference Monitor (FRM) and the co-located continuous monitors, scatter plots, and line plots. All of these analyses indicated that, while in general there is good correlation, there are certain areas that show poor correlation and since the data does not meet laboratory requirements, the data was not submitted to AQS as flagged, but as invalid.

			Table A-1	- Valid Data Ar	alysis for 202	13 Design Valu	les			
Monitor	2013 DV	All Qtrs >75% data capture?	2011 inc. quarters	2012 inc. quarters	2013 inc. quarters	2011 ann. mean > 12.0?	All 2011 inc. quarters 11+ samples?	All inc. quarters >50% ?	Results of data sub. test	Valid 2013 Design Value?
				Chatta	nooga CBSA					
Rossville	10.5	No	Q1	None	Q2	No	-	Yes	11.45	Yes
East Ridge, TN	10.1	Yes	-	-	-	-	-	-	-	Yes
Soddy Daisy, TN	9.8	Yes	-	-	-	-	-		-	Yes
Riverside, TN	10.0	Yes	-	-	-		-	-	-	Yes
Athens, TN	9.5	No	None	Q4	None	No	-	Yes	9.68	Yes
				Ma	acon CSA			•		
Macon Allied Chemical	11.8	No	Q1	None	None	Yes	Yes	-	-	Yes
Macon SE	9.4	No	Q1	None	None	No	-	Yes	9.92	Yes
Warner Robins	9.9	No	Q1	None	None	No	-	Yes	10.41	Yes
			****	Ro	me CBSA	1.				
Rome	10.8	No	Q1	None	None	Yes	Yes	-	-	Yes
				Monitor	s not in a CBS	SA				
Gordon	11.2	No	Q1	None	None	Yes	Yes	-	-	Yes

Chattanooga-Cleveland-Dalton, TN-GA-AL Combined Statistical Area

The Chattanooga-Cleveland-Dalton Combined Statistical Area (Chattanooga CSA) consists of six CBSAs:

Athens TN CBSA - McMinn County, Tennessee Chattanooga TN-GA CBSA - Catoosa, Dade and Walker Counties, Georgia, and Hamilton, Marion, and Sequatchie Counties, Tennessee Cleveland TN CBSA - Bradley and Polk Counties, Tennessee Dalton GA CBSA - Murray and Whitfield County, Georgia Dayton TN CBSA - Rhea County, Tennessee Scottsboro AL CBSA - Jackson County, Alabama

There are five monitoring sites in the Chattanooga CSA. The 2013 design values for these five monitors are 10.5 μ g/m³ (Rossville), 10.1 μ g/m³ (East Ridge, TN), 9.8 μ g/m³ (Soddy Daisy, TN), 10.0 μ g/m³ (Riverside, TN), and 9.5 μ g/m³ (Athens, TN). The Rossville monitor had two quarters (1st quarter, 2011, and 2nd quarter, 2013) that do not meet 75% data completeness. Both of these quarters have at least 50 percent data capture. Therefore the maximum quarterly value data substitution test was performed on the Rossville monitor. The result of the data substitution test is 11.45 μ g/m³. Therefore, the 2013 design value of 10.5 μ g/m³ for the Rossville site is valid. The Athens, Tennessee, monitor has one quarter (4th quarter, 2012) that does not meet 75% data completeness. This quarter has at least 50% data capture and is thus eligible for the maximum quarterly value data substitution test. The result of the data substitution test is 9.68 μ g/m³. Thus, the design value of 9.5 μ g/m³ for the Athens, Tennessee, site is valid. Both the East Ridge, TN, and Soddy Daisy, TN monitors meet the data completeness criteria of Appendix N. Therefore, EPD recommends that all of the Georgia counties in the Chattanooga-Cleveland-Dalton Combined Statistical Area (i.e., Catoosa, Dade, Murray, Walker, and Whitfield Counties) be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Gordon

Georgia's Gordon monitor is in Wilkinson County, Georgia. Wilkinson County is not part of a CBSA. The Gordon monitor has a 2013 design value below the standard at 11.2 μ g/m³. The Gordon monitor does not meet 75% data capture during 1st quarter, 2011. The 2011 annual mean was for the Gordon monitor was above the standard at 12.9 μ g/m³ and the site had more than 11 samples during first quarter, 2011. Therefore, the Gordon 2011 annual value and the 2013 design value of 11.2 μ g/m³ is valid in accordance with section 4.1(b). EPD recommends that Wilkinson County be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Macon-Warner Robins, GA Combined Statistical Area

The Macon-Warner Robins Combined Statistical Area (Macon CSA) consists of two CBSA's:

Macon GA CBSA - Bibb, Crawford, Jones, Monroe, and Twiggs Counties Warner Robins CBSA - Houston, Peach, and Pulaski Counties

There are three monitors in the Macon CSA. All three of the monitors have attaining 2013 design values of 11.8 μ g/m³ (Macon Allied Chemicals), 9.4 μ g/m³ (Macon SE), and 9.9 μ g/m³ (Warner Robins). Each of these three fails to meet 75% data capture during 1st quarter, 2011. The 2011 annual mean for the Macon Allied Chemicals site was above the standard at 14.2 μ g/m³ and had at least 11 samples during first quarter, 2011. Thus, the Macon Allied Chemical 2011 annual mean and 2013 design value of 11.8 μ g/m³ are valid in accordance with section 4.1(b). Neither Macon SE nor Warner Robins had a 2011 annual mean above the standard and thus cannot be determined valid in accordance with section 4.1(b). However, both of these sites have at least 50% data capture during 1st quarter, 2011, and are eligible for the maximum quarterly value data substitution test of section 4.1(c)(ii). The result of the data substitution tests are 9.92 μ g/m³ for Macon SE and 10.41 μ g/m³ for Warner Robins. Thus, the design value of 9.4 μ g/m³ for Macon SOutheast and 9.9 for Warner Robins are valid. EPD recommends that all counties in the Macon-Warner Robins CSA be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Rome CBSA

The Rome CBSA consists only of Floyd County. The Rome monitor has a 2013 design value below the standard at 10.8 μ g/m³. This monitor fails to meet 75% data capture during 1st quarter, 2011. The 2011 annual mean for the Rome site was above the standard at 12.5 μ g/m³ and had at least 11 samples during first quarter, 2011. Thus, the Rome 2011 annual mean and 2013 design value of 10.8 μ g/m³ are valid in accordance with section 4.1(b). Therefore, EPD recommends that Floyd County be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100

Judson H. Turner, Director

June 2, 2014

Heather McTeer Toney **Regional Administrator** U.S. EPA, Region 4 61 Forsyth Street, S.W. Atlanta, Georgia 30303-3104

Recommended Designations for 2012 PM25 National Ambient Air Quality Standard: Re: Additional Technical Analyses for select areas

Dear Ms. Toney:

In a separate letter dated May 30, 2014, the Georgia Environmental Protection Division (EPD) submitted revised designation recommendations for the 2012 Revised Primary Annual Fine Particle National Ambient Air Quality Standard (NAAQS). The attached document provides additional technical analyses to support those recommendations.

All of the ambient monitors in Georgia, and in neighboring states that share Core Based Statistical Areas (CBSAs) or Combined Statistical Areas¹ (CSAs) with Georgia, have 3-year design values showing attainment of the 2012 annual PM2.5 NAAQS of 12.0 µg/m3.

40 CFR 50 Appendix N, section 4.1 provides criteria and procedures for comparing data obtained from ambient PM25 monitors with the annual PM25 NAAQS. Sections 4.1(b) and 4.1(c) contain specific methodology for determining if a 3-year design value is valid where individual quarters that do not meet data capture rates of 75 percent. All of the monitors in three of the ten CBSAs and CSAs, plus one monitor located in a county that is not part of a CBSA, have been determined to be valid in accordance with sections 4.1(b) or 4.1(c). The analyses for these four areas were included with EPD's revised designation recommendations dated May 30, 2014.

At least one monitor in each of seven other CBSAs or CSAs, plus one other monitor not located in a CBSA, cannot be determined to be valid using the criteria and procedures contained in section 4.1(b) or 4.1(c). For such monitors, section 4.1(d) of Appendix N provides that their data may be considered valid with the approval or initiation of the EPA Administrator, who may take other factors into account. EPD has conducted the attached data completeness analyses for the monitors in these areas and submits this analysis to support EPD's designation recommendations for the 2012 annual PM25 NAAQS. The analysis method(s) used for each monitor are shown in the following table. Additional monitors at several of these areas had complete data or met the valid data requirements of sections 4.1(b) or 4.1(c) and are also discussed in the attached document.

¹ Combined Statistical Areas are comprised of two or more Core Based Statistical Areas

Heather McTeer Toney Page two

Area	Monitor	Analysis Method(s)
Albany CBSA	Albany	partial back-filling with co-located non-FEM continuous monitor
Atlanta CSA	Athens	maximum quarterly value data substitution test (4.1(c))
	Forest Park	valid per 4.1(b)
	Gainesville	maximum quarterly value data substitution test (4.1(c))
	Atlanta Fire Station #8	bootstrapping
	Kennesaw	bootstrapping
	Gwinnett	bootstrapping
	Yorkville	bootstrapping
	South DeKalb	not applicable - monitor has complete data
Augusta CBSA	Bungalow Road Elementary	back-filling co-located non-FEM continuous monitor,
100		imputation back-filling with co-located non-FEM continuous
		monitor, data substitution with 5-year maximum quarterly
		average, requested bootstrapping
	Trenton, SC	not applicable - monitor has complete data
Brunswick CBSA	Brunswick	long history of data well below the NAAQS, data substitution
		with 5-year maximum quarterly average
Columbus CBSA	Columbus Airport	back-filling co-located non-FEM continuous monitor,
		imputation back-filling with co-located non-FEM continuous
		monitor, bootstrapping
	Columbus Health Department	back-filling with nearby non-FEM continuous monitor,
		imputation back-filling with nearby non-FEM continuous
		monitor, bootstrapping
	Cusseta Road Elementary	back-filling with nearby non-FEM continuous monitor,
		imputation back-filling with nearby non-FEM continuous
		monitor, bootstrapping
	Phenix City, AL	not applicable - monitor has complete data
Sandersville	Sandersville	long history of data well below the NAAQS, data substitution
		with 5-year maximum quarterly average
Savannah CSA	Mercer Middle School	long history of data well below the NAAQS, back-filling with
		nearby non-FEM continuous monitor, data substitution with
		5-year maximum quarterly average, and requested
1111		bootstrapping
Valdosta CBSA	Valdosta	long history of data well below the NAAQS , back-filling with
		co-located non-FEIVI continuous monitor

EPD would like to thank EPA staff for providing technical assistance and for working through these issues with us to compile the best possible information for making the appropriate designation decisions.

Please contact Jimmy Johnston at (404)363-7014 or contact me at (404) 363-7016 should you have any questions regarding this matter.

Sincerely, . int Bentley

Keith Bentley Chief Air Protection Branch

KB:JPJ

Attachments

This attachment addresses data completeness issues for monitor data used in determining 2013 design values (DVs) contained in the Georgia Environmental Protection Division's (EPD's) revised updated 2012 annual PM_{2.5} National Ambient Air Quality Standard (NAAQS) designation recommendations. Data completeness is assessed for the following CSAs and CBSAs: Albany, Atlanta, Augusta, Brunswick, Columbus, Savannah, Valdosta, and Sandersville. Data completeness analyses for Chattanooga, Gordon, Macon, and Rome were included with EPD's revised designation recommendations.

40 CFR 50 Appendix N, section 4.1 provides criteria and procedures for comparing data obtained from ambient $PM_{2.5}$ monitors with the annual $PM_{2.5}$ NAAQS. Section 4.1(a) states that "The primary annual PM2.5 NAAQS is met when the annual $PM_{2.5}$ NAAQS DV is less than or equal to 12.0 µg/m³ at each eligible monitoring site. The secondary annual $PM_{2.5}$ NAAQS is met when the annual PM2.5 NAAQS DV is less than or equal to 15.0 µg/m³ at each eligible monitoring site. "Since the secondary annual $PM_{2.5}$ NAAQS is higher than the primary NAAQS, compliance with the primary standard of 12.0 µg/m³ also demonstrates compliance with the secondary NAAQS.

All of the PM_{2.5} monitors in Georgia and adjoining states that are located in CBSAs or CSAs with Georgia monitors have 2013 three-year design values below the level of the 2012 annual NAAQS. As shown in figure A-1, PM2.5 design values for all of these areas have been steadily decreasing and, with further emission reductions required by federal and state standards, are expected to continue to decline.



Figure A-1. Annual PM2.5 Design Values (µg/m³)

Section 4.1(b) of 40 CFR 50 Appendix N states that a 3-year design value is valid a) when all four quarters in each calendar year have at least 75 percent data capture or b) for 3-year design values or annual means that are above the level of the NAAQS, when all quarters in a year have at least 11 creditable samples. Section 4.1(c) specifies data substitution tests that may be used to determine if a 3-year design value is valid when the data does not meet the requirements of section 4.1(b). The data substitution test for areas that have design values equal to or below the NAAQS is permitted only if there is at least 50 percent data capture in each quarter that is deficient of 75 percent data capture in each of the three years under consideration. For monitors that cannot be determined valid using the criteria specified in section 4.1(b) or 4.1(c), appendix N provides EPA the authority to consider other factors to determine if a 3-year design value is valid.

4.1(d) A 24-hour PM2.5 NAAQS DV based on data that do not meet the completeness criteria stated in section 4(b) of this appendix and also do not satisfy the test conditions specified in section 4(c) of this appendix, may also be considered valid with the approval of, or at the initiative of, the EPA Administrator, who may consider factors such as monitoring site closures/moves, monitoring diligence, the consistency and levels of the daily values that are available, and nearby concentrations in determining whether to use such data.

There are twelve monitors in seven CSAs or CBSAs and one additional monitor that is not located in a CBSA that cannot be determined to be valid using the criteria and procedures in sections 4.1(b) and (c) (see table A-1). Additional analyses for each of these areas is provided in this document and presented to EPA for consideration to support EPD's recommended designation of "unclassifiable/attainment". Data from monitors that have been determined to be valid and are located in the CSAs and CBSAs with these invalid monitors are also presented here.

It is important to note that all of the Georgia monitors, except for South DeKalb¹, have incomplete data for the first quarter of 2011. This was due to circumstances out of EPD's control that resulted from a snow and ice storm from January 9th through 11th, 2011. The storm caused problems with the power and environmental control systems for the EPD Laboratory which lost power on and off during the following week. The systems were brought on line by Friday, January 14th; however, the weighing rooms could not be stabilized until February 2nd, 24 days after the storm began. In order to meet Federal ambient monitor sampling deadlines, both pre- and post-sample weighing had to be conducted during this period. Furthermore, samples could not have been prepared or taken through the preparation process at another laboratory (commercial, Federal, State or academic) and still meet Federal sampling requirements. A number of data analysis studies were conducted to determine the sample validity status. These studies included a correlation analysis between our lab (with Rossville monitor data) and the lab used by Chattanooga-Hamilton County Air Pollution Control Bureau for three Chattanooga, Tennessee sites (Soddy Daisy, Tombras and Siskin Drive), a statewide correlation test between the

¹ A continuous FEM monitor was located at the South DeKalb site during the incident. This FEM data was substituted for missing FRM data resulting in a complete data set for first quarter, 2011.

affected Federal Reference Monitor (FRM) and the co-located continuous monitors, scatter plots, and line plots. These analyses indicated that, while in general there is good correlation, there are certain areas that show poor correlation. Since the data does not meet laboratory requirements, it was submitted to AQS as invalid rather than flagged.

Attachment A: Data Completeness Analysis

Albany, Atlanta, Augusta, Brunswick, Columbus, Savannah, Valdosta, Sandersville

			Table	e A-1 - Valid I	Data Analysi	s for 2013 D	esign Values				
AFS Number	Monitor	2013	All Qtrs	2011	2012	2013	20112	All quarters	All	Results of	Valid 2013
		DV	>75% data	incompl.	incompl.	incompl.	ann. mean	11+ samples?	incompl.	data sub.	Design
			capture?	quarters	quarters	quarters	> 12.0?		quarters	test	Value? ³
									>50% ?		
Albany CBSA											
13-095-0007	Albany	10.9	No	Q1	Q2, Q3,	None	Yes	Yes	yes	13.89	No
					Q4						
Atlanta CSA											
13-059-0002	Athens	9.9	No	Q1	Q4	None	No	-	Yes	10.74	Yes
13-063-0091	Forest Park	11.1	No	Q1	None	None	Yes	Yes	-	-	Yes
13-067-0003	Kennesaw	10.4	No	Q1	None	None	No	-	No	-	No
13-089-0002	South DeKalb	10.5	Yes	-	-	-	-		-	•	Yes
13-121-0039	Atlanta – Fire	11.6	No	Q1	Q3	None	Yes	Yes	No	-	No
	Station #8										
13-135-0002	Gwinnett	10.1	No	Q1	None	None	No	-	No	-	No
13-139-0003	Gainesville	9.5	No	Q1	None	None	No	-	Yes	10.39	Yes
13-223-0003	Yorkville	9.3	No	Q1	None	None	No	-	No	-	No
Augusta CBSA			10								
13-245-0002	Bungalow Rd.	10.5	No	Q1	None	None	No	-	No	-	No
45-037-0001	Trenton, SC	9.3	Yes	•	-	-	-	-	-	-	Yes
Brunswick CBS	A										
13-127-0006	Brunswick	8.2	No	Q1, Q2,	Q1, Q2,	Q1, Q2	No	-	-	-	No
				Q4	Q3, Q4						

² All monitors have annual means below 12.0 μ g/m³ in 2012 and 2013. Thus, the valid data test of section 4.1(b) is only applicable to 2011 annual means. ³ "Yes" indicates valid in accordance with 40 CFR Part 50 Appendix N section 4.1(b) or 4.1(c).

Attachment A: Data Completeness Analysis

Albany, Atlanta, Augusta, Brunswick, Columbus, Savannah, Valdosta, Sandersville

			Table A-1 -	Valid Data A	nalysis for 2	013 Design	Values (conti	nued)			
AFS Number	Monitor	2013	All Qtrs	2011	2012	2013	20114	All quarters	All	Results of	Valid 2013
		DV	>75% data	incompl.	incompl.	incompl.	ann. mean	11+	incompl.	data sub.	Design
			capture?	quarters	quarters	quarters	> 12.0?	samples?	quarters	test	Value? ⁵
									>50% ?		
Columbus CSA											
13-215-0001	Health	10.8	no	Q1	None	None	No	-	No	-	No
	Department										
13-215-0008	Airport	10.5	No	Q1	None	None	No	-	No	-	No
13-215-0011	Cusseta Rd.	10.7	No	Q1	None	None	No	-	No	-	No
01-113-0001	Phenix City, AL	11.2	Yes	-	-	-	•	-	-	-	Yes
							· · · ·				
Savannah CSA					•						
13-051-0091	Mercer Middle	10.2	No	Q1	Q3, Q4	Q4	Yes	Yes	No	11.39	No
	Sch.										
Valdosta CBSA											
13-185-0003	Valdosta	8.9	No	Q1, Q3	Q2	None	No	-	No	-	No
Not in a CBSA											
13-303-0001	Sandersville	10.2	No	Q1	Q2	None	No	-	No		No

⁴ All monitors have annual means below 12.0 μ g/m³ in 2012 and 2013. Thus, the valid data test of section 4.1(b) is only applicable to 2011 annual means. ⁵ "Yes" indicates valid in accordance with 40 CFR Part 50 Appendix N section 4.1(b) or 4.1(c).

Albany GA Core Based Statistical Area

The Albany GA Core Based Statistical Area (CBSA) consists of Baker, Dougherty, Lee, Terrell, and Worth Counties. There is one Federal Reference Method (FRM) $PM_{2.5}$ monitor in the Albany CBSA. The 2013 design value for the Albany monitor is 10.9 μ g/m³, which indicates attainment with the 2012 $PM_{2.5}$ annual NAAQS. As illustrated in figure A-1, the Albany monitor has consistently been in compliance with the NAAQS.

The Albany monitor has one quarter in 2011 and three quarters in 2012 that do not meet 75% data completeness. The 2011 annual arithmetic mean was 12.1 μ g/m³ and all quarters in the three year period have more than 11 creditable samples; therefore, the 2011 arithmetic mean could be considered valid per section 4.1(b). However, there were three quarters in 2012 that did not meet 75% data capture and the 2012 arithmetic mean was below the standard at 10.6 μ g/m³. Therefore, the 2013 design valued cannot be considered valid per section 4.1(b). All of the quarters below 75% data capture at the Albany monitor have at least 50 percent data capture; consequently, the maximum quarterly value data substitution test was performed on the Albany monitor for all four incomplete quarters. The result of the data substitution test is 13.89 μ g/m³, which is higher than the standard. Therefore, the design value for Albany monitor cannot be considered valid using the methods of 40 CFR 50 Appendix N sections 4.1(b) or 4.1(c)(ii).

A non-Federal Equivalent Method (non-FEM) beta attenuation monitor (BAM) continuous monitor is colocated with the Albany FRM monitor. Starting with 2013, this continuous monitor was converted to a Federal Equivalent Method (FEM) monitor. EPD has used data from the continuous monitor to back-fill missing days from the Federal Reference Monitor (FRM) monitor in 2011 and 2012 as evidence that the Albany monitor was below the standard (Table A-2 and Figure A-2). This, together with the valid 2013 annual mean, yielded a three year design value of 11.0 μ g/m³.

Figure A-3 shows a least-squares fit comparison of the FRM data to the continuous monitor data. The continuous $PM_{2.5}$ measurements at the Albany monitor are generally higher than the FRM measurements. As such, the replacement of missing FRM data with the continuous data is a conservative approach. A continuous monitor comparability assessment for the co-located Albany BAM and FRM from the EPA AQS Data Mart is contained in Attachment D. The Division requests that based on the results of the back-filling analysis, that EPA consider the 2013 design value of 10.9 μ g/m³ for Albany valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N. Therefore, EPD recommends that all counties in the Albany GA CBSA be designated attainment for the 2012 $PM_{2.5}$ annual NAAQS.

Table A-2	Substit	ution of	Co-locat	ed Non-	FEM Co	ntinuous	Monito	r Data fo	or Missin	g FRM D	ata, Alb	any CBS/	Ą
	Quart	erly Per	cent Con	npletene	ess and A	nnual M	lean		10 900 C				Design
	2011			·········	2012				2013 -	FRM &	FEM		Value
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1
	51%	98%	98%	67%	86%	60%	57%	64%	100%	100%	100%	100%	
FRM		12	2.09			10	.64	A 100 E			10.9		
FRM +	98%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%	100%	11.0
cont.		12	.56			10.	.33			10).0	3	11.0



Figure A-2. Combination of original FRM data with substituted data from the Albany continuous monitor.



Figure A-3. Comparison of 2011-2012 FRM data with the continuous monitor at Albany.

Atlanta--Athens-Clarke County--Sandy Springs, GA Combined Statistical Area

The Atlanta-Athens-Clarke County-Sandy Springs Combined Statistical Area (Atlanta CSA) consists of eight CBSAs:

- Athens- Clark County GA CBSA Clarke, Madison, Oconee, and Oglethorpe Counties .
- Atlanta-Sandy Springs-Roswell GA CBSA Barrow, Bartow, Butts, Carroll, Cherokee, Clayton, Cobb, Coweta, Dawson, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Haralson, Heard, Henry, Jasper, Lamar, Meriwether, Morgan, Newton, Paulding, Pickens, Pike, Rockdale, Spalding, and Walton Counties
- Calhoun GA CBSA Gordon County .
- Cedartown GA CBSA Polk County .
- Gainesville GA CBSA Hall County .
- Jefferson GA CBSA Jackson County .
- LaGrange GA CBSA Troup County
- Thomaston GA CBSA Upson County .

There are eight monitoring sites in the Atlanta CSA⁶. All eight monitors have attaining design values ranging from 9.3 µg/m³ to 11.6 µg/m³. The South DeKalb site (13-089-0002) meets 75% data capture

⁶ The Powder Springs, Doraville, and E. Rivers monitors were shut down following 2012.

for all quarters and therefore the 2013 design value of 10.5 µg/m³ is considered valid. The 2013 design values and quarters that do not meet 75% data capture for the Atlanta CSA monitors are shown in Table A-3.

		Table A-3 – Atlanta O	CSA Monitors
AQS Number	Monitor	2013 design value (µg/m³)	Quarter(s) Below 75% Data Capture
13-089-2001	South DeKalb	10.5	None
13-059-0002	Athens CSA	9.9	2011 Q1 (57%), 2012 Q4 (73%)
13-063-0091	Forest Park	11.1	2011 Q1 (47%)
13-139-0003	Gainesville	9.5	2011 Q1 (53%)
13-121-0039	Fire Station #8	11.6	2011 Q1 (45%), 2012 Q3 (45%)
13-067-0003	Kennesaw	10.4	2011 Q1 (48%)
13-135-0002	Gwinnett	10.1	2011 Q1 (37%)
13-223-0003	Yorkville	9.3	2011 Q1 (47%)

<u>Athens.</u> Both of the quarters below 75% data capture at the Athens monitor have at least 50 percent data capture. Therefore the maximum quarterly value data substitution test was performed on the Athens monitor. The result of the data substitution test is 10.74 μ g/m³. Therefore, the 2013 design value of 9.9 μ g/m³ for the Athens site is valid per section 4.1 (c) (ii).

<u>Forest Park.</u> The 2011 annual arithmetic mean (the only year containing a quarter with less than 75% data capture) for Forest Park was above the standard at 12.7 μ g/m³ and the site had more than 11 samples for all quarters in the three-year period. Therefore, the 2011 arithmetic mean and the 2013 design of 11.1 μ g/m³ for the Forest Park monitor are considered valid per section 4.1(b).

<u>Gainesville.</u> The only quarter below 75% data capture at the Gainesville monitor (1st quarter, 2011) has at least 50 percent data capture. Therefore the maximum quarterly value data substitution test was performed on the Gainesville monitor. The result of the data substitution test is 10.33 μ g/m³. Therefore, the 2013 design value of 9.5 μ g/m³ for the Gainesville site is valid per section 4.1 (c) (ii).

<u>Fire Station No. 8.</u> The 2011 annual arithmetic mean for Atlanta - Fire Station #8 was above the standard at 13.1 μ g/m³ and the site had more than 11 samples during first quarter, 2011, the only quarter in 2011 with less than 75% data capture. Therefore, the 2011 annual value could be considered valid in accordance with section 4.1(b). However, this monitor also had less than 75% data capture during 3rd quarter, 2012, and the 2012 annual average was below the standard. The design value is therefore not valid per section 4.1(b). Since both 1st quarter, 2011, and 3rd quarter, 2012 had less than 50% data capture, the maximum quarterly data substitution test is not applicable. Therefore, the Fire Station #8 design value of 11.6 μ g/m³ is not considered valid in accordance with 40 CFR 50 Appendix N sections 4.1(c) or 4.1(c)(ii). EPA Region 4 has completed bootstrapping analyses that supports the

attainment status of the Atlanta Fire Station #8 monitor. The Division requests that based on the results of the EPA bootstrapping analysis, that EPA consider the 2013 design value of 11.6 μ g/m³ for Atlanta-Fire Station #8 valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

<u>Kennesaw, Gwinnett, and Yorkville.</u> The Kennesaw, Gwinnett, and Yorkville monitors all have 2013 design values below the standard. Each had less than 75% data completeness during first quarter, 2011. Each also had less than 50% data capture during this quarter and thus do not qualify for the maximum quarterly value data substitution test. Therefore, these three design values are not considered valid in accordance with 40 CFR 50 Appendix N sections 4.1(c) or 4.1(c)(ii). EPA Region 4 has completed bootstrapping analyses that supports the attainment status of the Kennesaw, Gwinnett, and Yorkville monitors. The Division requests that based on the results of the EPA bootstrapping analyses, that EPA consider the 2013 design values of 10.4 µg/m³ for Kennesaw, 10.1 µg/m³ for Gwinnett, and 9.3 µg/m³ for Yorkville valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

All of the eight operating monitors in the Atlanta CSA have 2013 design values below the 2012 PM_{2.5} NAAQS. Therefore, EPD recommends that all counties in the Atlanta CSA be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Augusta-Richmond County, GA-SC Core Based Statistical Area

The Augusta-Richmond County GA CBSA (Augusta CBSA) consists of Burke, Columbia, Lincoln, McDuffie, and Richmond counties in Georgia and Aiken and Edgefield Counties in South Carolina. There are two $PM_{2.5}$ monitoring sites in the Augusta CBSA⁷. The 2013 design values for these monitors are 10.5 μ g/m³ for Bungalow Road Elementary and 9.3 μ g/m³ for Trenton, S.C. The Trenton monitor had no incomplete quarters and thus has a valid 2013 design value.

The Bungalow Rd. Elementary monitor had incomplete data in first quarter, 2011 (43%). Since the 2011 annual mean for Augusta, Bungalow Rd. Elementary monitor was less than the standard, it cannot be determined valid in accordance with 4.1(b). Also, since first quarter, 2011, had less than 50% data capture, the maximum quarterly data substitution test of 4.1(c) is not applicable. Therefore the design value for Augusta monitor is not considered valid in accordance with 40 CFR 50 Appendix N sections 4.1(c) or 4.1(c)(ii).

However, a continuous monitor non-FEM tapered element oscillating microbalance (TEOM) monitor is co-located with the Augusta, Bungalow Road Elementary FRM monitor. EPD has used data from the continuous monitor to back-fill missing days from the FRM monitor in 2011 through 2013 as evidence that the Bungalow Road Elementary monitor was below the standard (Table A-4 and Figure A-4). This yielded a three year design value of 10.5 μ g/m³, the same as the design value prior to back-filling.

Figure A-5 shows that the continuous PM_{2.5} measurements at the Bungalow Road Elementary monitor correlate well with the FRM measurements. A continuous monitor comparability assessment for the co-

⁷ The Medical College of Georgia monitor in Augusta was shut down at the end of 2012.

located Bungalow Road TEOM and FRM from the EPA AQS Data Mart is contained in Attachment D. As such, the replacement of missing data with the continuous data is an appropriate approach. In addition, back-filling using imputation using regression analysis (finding the best fit line including intercept) also yielded a design value of 10.5, providing further evidence that this site is below the 12.0 μ g/m³ limit. Furthermore, substituting all missing data values from 2011-2013 with the highest quarterly average value observed in the past 5 years (since 2009, with the highest value 13.61 μ g/m³ in 2011Q2) yielded a value of 10.88 μ g/m³, well below 12.0 μ g/m³; proving again that this site is attaining.

Table A-4	- Substit	ution of	Co-locat	ted Non-	FEM Co	ntinuous	Monito	r Data fo	or Missin	g FRM D	ata, Bun	igalow R	d.
	Quarte	erly Perce	ent Com	pletenes	s and A	nnual Me	ean						Design
	2011			25.5	2012				2013	4			Value
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	43%	93%	97%	93%	94%	93%	90%	87%	93%	94%	87%	88%	
FRM	43% 93% 97% 93% 94% 93% 90% 87% 93% 94% 87% 88% 11.79 10.43 9.24 10.43 10.43 10.43 10.43 10.43 10.44												
FRM +	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	10.5
TEOIM		11	.77			10	.32		67	9.	41		10.5

Figure A-4. Combination of original FRM data with substituted data from the Bungalow Road continuous monitor.





Figure A-5. Comparison of 2011-2013 FRM data with the continuous monitor at Bungalow Rd. Monitor

The Division requests that EPA Region 4 conduct a bootstrapping analysis with a nearby monitor (such as the Trenton, SC monitor) to support the attaining design value for the Augusta Bungalow Road monitor.

The Division requests that based on the results of the data substitution with the 5-year maximum quarterly average, back-filling, imputation back-filling, and the requested EPA bootstrapping analysis, that EPA consider the 2013 design value of 10.5 μ g/m³ for Augusta Bungalow Road Elementary valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

Since both of the operating monitors in the Augusta CBSA have 2013 design values below the PM_{2.5} NAAQS and the Trenton monitor is valid in accordance with 40 CFR 50 Appendix N EPD recommends that all of the Georgia counties in the Augusta-Richmond County CBSA (i.e., Burke, Columbia, Lincoln, McDuffie, and Richmond Counties) be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Brunswick, GA Core Based Statistical Area

The Brunswick, Georgia, CBSA consists of Brantley, Glynn, and McIntosh Counties. There is one $PM_{2.5}$ monitoring site in the Brunswick CBSA. The 2013 design value for the Brunswick monitor is 8.2 μ g/m³, which indicates attainment with the 2012 $PM_{2.5}$ annual NAAQS. As illustrated in figure 1-A, the Brunswick monitor has consistently been in compliance with the NAAQS. The design value for this monitor has been at or below the level of the 2012 PM2.5 NAAQS since 2007. The Brunswick monitor has nine quarters that do not meet 75% data completeness. All of the annual averages are below the

standard and thus cannot be determined valid in accordance with section 4.1(b). Two of the nine incomplete quarters (1st quarter, 2011, and 3rd quarter, 2012) have less than 50% data capture and thus the maximum quarterly data substitution test of 4.1(c) is not applicable. Therefore, the Brunswick monitor cannot be determined to be valid in accordance with 40 CFR 50 Appendix N sections 4.1(c) or 4.1(c)(ii).

Substituting all missing data values from 2011-2013 with the highest quarterly average value observed in the past 5 years (since 2009, with the highest value 13.11 μ g/m³ in 2011Q2) yielded a value of 10.04 μ g/m³, well below 12.0 μ g/m³; providing further evidence that this site is attaining

The Division requests that EPA consider the long history of design values well below the level of the annual PM_{2.5} NAAQS at the Brunswick monitor and the results of substituting missing values with the highest quarterly average value over the past 5 years to exercise the Administrator's authority under section 4.1(d) of 40 CFR 50 Appendix N to conclude that this monitor is attaining the standard.

EPD recommends that all counties in the Brunswick, GA CBSA be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Columbus-Auburn-Opelika, GA-AL Combined Statistical Area

The Columbus-Auburn-Opelika Combined Statistical Area (Columbus CSA) consists of three CBSAs:

- Auburn-Opelika AL CBSA Lee County, Alabama
- Columbus GA-AL CBSA Chattahoochee, Harris, Marion, and Muscogee Counties, Georgia, and Russell County, Alabama
- Valley AL CBSA Chambers County, Alabama

The Columbus CSA has four monitors. All four monitors have attaining 2012 design values of 10.8 μ g/m³ for Columbus Health Department, 10.5 μ g/m³ for Columbus Airport, 10.7 μ g/m³ for Columbus Cussetta Road Elementary, and 11.2 μ g/m³ for Phenix City, AL.

The Phenix City, Alabama, monitor has at least 75% data capture during all four quarters and thus meets the data completeness criteria of Appendix N.

All three Columbus monitors failed to meet the 75% data completeness requirements during first quarter, 2011. The 2011 annual means for all three of these were below the standard in 2011 and thus do not qualify as valid under section 4.1(b) of 40 CFR 50 Appendix N. All three of the Columbus monitors also had less than 50% data capture during first quarter, 2011, and thus do not qualify for the maximum quarterly data substitution test of section 4.1(c). Therefore, the 2013 design values for all three of the Columbus monitors are not valid in accordance with 40 CFR 50 Appendix N sections 4.1(b) and 4.1(c)(ii). However, a continuous monitor non-FEM TEOM monitor is co-located with the Columbus Airport FRM monitor. This continuous monitor is approximately 3.5 miles northeast of the Health Department monitor and 6.4 miles north of the Cusseta Road Elementary monitor. EPD has used data from the continuous monitor to back-fill missing days from all three of the Columbus FRM monitors in

2011 through 2013 as evidence they were below the standard (Tables A-5 through A-7 and Figures A-6 through A-8) and that their design values are valid. This yielded a three year design value of 10.6 μ g/m³ for Columbus Health Department, 10.4 μ g/m³ for Columbus Airport, and 10.7 μ g/m³ for Columbus Cussetta Road Elementary. After back-fill, the design values only changed by 0.2 μ g/m³ or less.

Figures A-9 through A-11 shows that the continuous $PM_{2.5}$ measurements at the Airport monitor correlate very well with the FRM measurements at all three of the Columbus monitors. As such, the replacement of missing data is an appropriate approach. A continuous monitor comparability assessment for the co-located Columbus Airport TEOM and FRM from the EPA AQS Data Mart is contained in Attachment D. In addition, imputation using regression analysis (finding the best fit line including intercept) yielded design values of 10.7, 10.4, and 10.7 for the Columbus Health Department, Columbus Airport and Columbus Cussetta Road Elementary, respectively, all the same as with direct back-fill except for a 0.1 µg/m³ variation for the Health Department. This provides further evidence that this site is below the 12.0 µg/m³ standard.

Table A-5 for Missir	- Substin ng FRM D	tution of Data at C	f Columb Columbu	ous Airpo s Health	ort Non- Departi	FEM Con ment Mo	ntinuou: onitor	Monito	r Data				
	Quarte	erly Perc	ent Com	pletene	ss and A	nnual M	ean				9		Design
	2011				2012		n and her da		2013				Value
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1
	47%	93%	100%	100%	94%	76%	81%	93%	97%	97%	100%	100%	
FRM		11	.83			10	.83			9.	66		10.8
FRM +	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	10.5
TEON		11	.73			10	.50			9.	61		10.6

Table A-6 for Missin	- Substil	tution of Data at C	Columbu	ous Airpo s Airport	ort Non-	FEM Co	ntinuous	Monito	or Data					
TOT THISSIE	Quarterly Percent Completeness and Annual Mean													
	Quarterly Percent Completeness and Annual Mean 2011 2012												Value	
	Q1	ZOTI ZOTZ ZOTS Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4												
6	47%	94%	94%	100%	93%	93%	94%	100%	100%	93%	89%	97%		
FRM		11	.40			10	.21			9.	94		10.5	
FRM +	100%	100% 100% <th< td=""></th<>												
TEOIVI		11	.32			10	.04			9.	72		10.4	

Table A-7	- Substit	tution of	Columb	ous Airpo	ort Non-	FEM Co	ntinuous	Monita	or Data					
for Missin	Vissing FRM Data at Columbus Cusseta Road Elementary Monitor													
	Quarterly Percent Completeness and Annual Mean													
	2011 2012 2013												Value	
	Q1	Q1 Q2 Q3 Q4												
	47%	100%	100%	97%	100%	93%	87%	93%	100%	90%	93%	97%		
FRM		11	.88			10	.40			9.	72		10.7	
FRM +	100%	100% 100% <th< td=""></th<>												
		11	.88			10	.50			9.	61	-	10.7	



Figure A-6. Combination of original Columbus Health Department FRM data with substituted data from the Columbus Airport continuous monitor.

Figure A-7. Combination of original Columbus Airport FRM data with substituted data from the Columbus Airport continuous monitor.





Figure A-8. Combination of original Columbus Cusseta Road Elementary FRM data with substituted data from the Columbus Airport continuous monitor.

Figure A-9. Comparison of 2011-2013 Columbus Health Department FRM data with the continuous monitor at the Columbus Airport Monitor.





Figure A-10. Comparison of 2011-2013 Columbus Airport FRM data with co-located continuous monitor.

Figure A-11. Comparison of 2011-2013 Columbus Cusseta Road Elementary FRM data with the continuous monitor at the Columbus Airport Monitor.



EPA Region 4 has completed bootstrapping analyses that supports the attainment status of the Columbus Health Department, Columbus Airport, and Cusseta Road Elementary monitors.

The Division requests that based on the results of the back-filling, imputation back-filling, and the EPA bootstrapping analyses, that EPA consider the 2013 design values of 10.8 μ g/m³ for Columbus Health Department, 10.5 μ g/m³ for Columbus Airport, 10.7 μ g/m³ for Columbus Cusseta Road Elementary valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

Therefore, EPD recommends that all Georgia counties (Chattahoochee, Harris, Marion, and Muscogee Counties) in the Columbus-Auburn-Opelika GA-AL Combined Statistical Area be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Sandersville

Georgia's Sandersville monitor is in Washington County, Georgia. Washington County is not part of a CBSA. The 2013 design value for the Sandersville monitor is $10.2 \ \mu g/m^3$, which indicates attainment with the 2012 PM_{2.5} annual NAAQS. As illustrated in figure 1-A, the Sandersville monitor has consistently been in compliance with the NAAQS. The design value for this monitor has been at or below the level of the 2012 PM2.5 NAAQS since 2010. The Sandersville monitor has two quarters that do not meet 75% data completeness, first quarter, 2011, and second quarter, 2012. Both the 2011 and 2012 annual means for Sandersville were below the standard and thus cannot be determined to be valid in accordance with section 4.1(b). First quarter, 2011, is below 50% data capture. Thus, the maximum quarterly value data substitution test cannot be applied to the Sandersville monitor. Therefore, the Sanderville monitor cannot be determined to be valid in accordance with sections 4.1(b) or 4.1(c)(ii) of 40 CFR 50 Subpart N.

Substituting all missing data values from 2011-2013 with the highest quarterly average value observed in the past 5 years (since 2009, with the highest value 14.01 μ g/m³ in 2011Q3) yielded a value of 10.74 μ g/m³, well below 12.0 μ g/m³ and providing evidence that this site is attaining.

The Division requests that based a history of design values below the NAAQS, a 2013 design value well below the NAAQS, and the results of the data substitution with the 5-year maximum quarterly average, that EPA consider the 2013 design value of 10.2 μ g/m³ for Augusta Bungalow Road Elementary valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

Therefore, EPD recommends that Washington County be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Savannah-Hinesville-Statesboro, GA Combined Statistical Area

The Savannah-Hinesville-Statesboro Combined Statistical Area (Savannah CSA) consists of two CBSAs:

Hinesville GA CBSA - Liberty and Long Counties

Savannah GA CBSA - Bryan, Chatham, Effingham, and Bulloch Counties

There is one $PM_{2.5}$ monitor currently operating in the Savannah CSA⁸, the Savannah-Mercer Middle School monitor which has a 2013 design value of 10.2 µg/m³. The Mercer Middle School monitor failed to meet 75% data completeness in 1st quarter, 2011, 3rd and 4th quarter, 2012, and 4th quarter, 2013. The 2011 annual mean for 2011 was above the standard at 12.2 µg/m³ and the site had 11 valid samples during all quarters. Thus the 2011 annual mean for Savannah Mercer Middle School could be considered valid in accordance with section 4.1(b). However, there were two quarters in 2012 and one in 2012 that did not meet 75% data capture and the 2012 and 2013 annual means for the Mercer Middle School monitor were both below the standard. Thus, the 2013 design value cannot be determined valid using the criteria in accordance with section 4.1(b). First quarter, 2011 did not have at least 50% data capture, therefore, the maximum quarterly value data substitution test of section 4.1(c)(ii) cannot be applied to the Mercer Middle School monitor. The design value for Savannah Mercer Middle School monitor is not considered valid in accordance with 40 CFR 50 Appendix N sections 4.1(c) or 4.1(c)(ii).

A non-FEM TEOM continuous monitor is located at EPD's Lathrop and Augusta site which is approximately 1.6 miles northwest of the Mercer Middle School FRM monitor. EPD has used the data from this continuous monitor to back-fill missing data from the FRM monitor as evidence that the Mercer Middle School monitor was below the standard (see Table A-8 and Figure A-12). This yielded a three year mean of 10.2 μ g/m³. Furthermore, substituting all missing data values from 2011-2013 with the highest quarterly average value observed in the past 5 years (since 2009, with the highest value 16.61 μ g/m³ in 2011Q2) yielded a value of 11.62 μ g/m³, below 12.0 μ g/m³ and providing additional evidence that this site is attaining.

Figure A-13 shows that the continuous $PM_{2.5}$ measurements at the Lathrop and Augusta monitor are generally higher than the FRM measurements; therefore, the replacement of missing data with the continuous data is a conservative approach.

school FR	M Data												
	Quarte	erly Perc	ent Com	pletene	ss and A	nnual M	ean		-	_			Design
	2011		,		2012				2013				Value
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4]
	37%	90%	87%	90%	84%	87%	71%	65%	93%	84%	93%	59%	
FRM		12	.19			9.	24			10.2			
FRM +	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	10.7
cont.		12	.03	€ la		9.	63			8.	97	yanne.	10.2

Table A-8 - Substitution of Lathrop & Augusta Non-FEM Continuous Monitor Data for Missing Mercer Middle school FRM Data

⁸ The Savannah Market Street monitor shut down at the end of 2012. Page 20 of 24



Figure A-12. Combination of original FRM data from Mercer Middle School monitor with substituted data from the Lathrop & Augusta continuous monitor.

Figure A-13. Comparison of 2011-2013 Mercer Middle School FRM data with the Lathroop & Augusta continuous monitor.



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The Division requests that EPA Region 4 conduct a bootstrapping analysis with a nearby monitor (such as the Charleston or North Charleston monitors in South Carolina) to support the attaining design value for the Savannah Mercer Middle School monitor.

The Division requests that, based on the results of the data substitution with the 5-year maximum quarterly average, the back-filling, and the requested EPA bootstrapping analyses, EPA consider the 2013 design values of 10.2 μ g/m³ for Savannah Mercer Middle School monitor valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

Based on this analysis, EPD recommends that all counties in the Savannah GA CSA be designated attainment for the 2012 PM_{2.5} annual NAAQS.

Valdosta GA Core Based Statistical Area

The Valdosta CBSA consists of Brooks, Echols, Lanier, and Lowndes Counties. There is one $PM_{2.5}$ monitoring site in the Valdosta CBSA. The 2013 design value for the Valdosta monitor is 8.9 µg/m³, which indicates attainment with the 2012 $PM_{2.5}$ annual NAAQS. The monitor has historically been below the level of the standard (since 2008). The Valdosta monitor has three quarters that do not meet 75% data completeness, 1st quarter, 2011, 3rd quarter, 2011, and 2nd quarter, 2012. None of the annual means are above the standard, thus the monitor cannot be determined to be valid in accordance with section 4.1(b). 1st quarter, 2011, has less than 50% data capture. Therefore, the maximum quarterly value data substitution test cannot be applied to this monitor. The Valdosta monitor cannot be determined to be valid in accordance with 40 CFR 50 Subpart N sections 4.1(b) or 4.1(c)(ii).

A non-FEM BAM continuous monitor is co-located with the Valdosta FRM monitor. EPD has used the data from this continuous monitor to back-fill missing data from the FRM monitor as evidence that the Valdosta monitor was below the standard (see Table A-9 and Figure A-14). This yielded a three year mean of 10.1 μ g/m³.

Figure A-15 shows that the continuous PM_{2.5} measurements at the Valdosta monitor are generally higher than the FRM measurements; therefore, the replacement of missing data with the continuous data is a conservative approach. A continuous monitor comparability assessment for the co-located Valdosta BAM and FRM from the EPA AQS Data Mart is contained in Attachment D.

Table A-9	- Substit	ution of	Co-loca	ted Nor	-FEM Co	ontinuou	s Monit	or Data	for Miss	ing FRM	Data, V	aldosta	CBSA
	Quarte	erly Perc	ent Com	pletene	ss and A	nnual M	ean						Design
	2011				2012				2013				Value
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1
	27%	77%	77%	87%	84%	60%	94%	100%	80%	90%	83%	94%	
FRM		9.	60			8.	57			8.9			
FRM +	100%	100%	100%	100%	97%	100%	97%	100%	100%	100%	100%	100%	10.4
Cont.		12	.25			9.	43			10.1			







Figure A-15. Comparison of 2011-2013 FRM data with the continuous monitor at Valdosta.

The Division requests that, based on the long history of design values well below the level of the annual $PM_{2.5}$ NAAQS and the results of the back-filling analysis, EPA consider the 2013 design values of 8.9 µg/m³ for Valdosta monitor valid under the authority of section 4.1(d) of 40 CFR 50 Appendix N.

Based on this analysis, EPD recommends that all counties in the Valdosta GA CBSA be designated attainment for the 2012 PM_{2.5} annual NAAQS.

AQS Number	CSA or CBSA/Monitor	2011	2012	2013	2011-2013
		Value	Value	Value	Design
				(Value
13-095-0007	Albany CBSA	12.1*	10.6*	10.0	10.9
Atlanta CSA	• 1000 147				
13-059-0002	Athens CSA	10.7*	9.3*	9.7	9.9
13-063-0091	Forest Park	12.7*	10.8	9.7	11.1
13-067-0003	Kennesaw	11.5*	10.1	9.6	10.4
13-067-0004	Powder Springs ⁹	11.3*	9.8	n/a	n/a
13-089-0002	South DeKalb	12.0	10.2	9.3	10.5
13-089-2001	Doraville ³	11.6*	10.1	n/a	n/a
13-121-0032	E. Rivers ³	11.7*	10.2	n/a	n/a i
13-121-0039	Fire Station #8	13.1*	11.3*	10.4*	11.6
13-135-0002	Gwinnett	11.0*	10.3	8.9	10.1
13-139-0003	Gainesville	10.7*	9.3	8.5	9.5
13-223-0003	Yorkville	10.7*	8.8	8.5	9.3
Augusta CBSA					
13-245-0005	Medical College of Georgia ³	12.1*	10.8	n/a	n/a
13-245-0091	Bungalow Rd. Elementary	11.7*	10.4	9.2	10.5
45-037-0001	Trenton (SC)	10.4	8.9	8.7	9.3
13-127-0006	Brunswick CBSA	8.9*	7.5*	8.2*	8.2
Chattanooga CSA	.			1997 () ()	
13-295-0002	Rossville	10.8*	10.5	10.0*	10.5
47-065-0031	East Ridge (TN)	11.1	10.1	9.3	10.1
47-065-1011	Soddy Daisy (TN)	10.3	10.0	9.2	9.8
47-065-4002	Riverside (TN)	11.1	10.0	8.9	10.0
47-107-1002	Athens (TN)	10.6	9.1*	8.8	9.5
Columbus CSA					
13-215-0001	Health Department	11.8*	10.8*	9.7	10.8
13-215-0008	Airport	11.4*	10.2	9.9	10.5
13-215-0011	Cusseta Rd. Elementary	11.9*	10.4	9.7	10.7
01-113-0001	Phenix City (AL)	12.3	11.4	10.0	11.2
13-319-0001	Gordon	12.9*	10.9	9.8	11.2
Macon CSA			·		
13-021-0007	Allied Chemical	14.2*	11.3	10.0	11.8
13-021-0012	Georgia Forestry	11.0*	9.0*	8.2	9.4
	Commission				
13-153-0001	Warner Robins	11.4*	9.5	8.7	9.9
13-115-0003	Rome CBSA	12.5*	10.6	9.4	10.8
13-303-0001	Sandersville	11.3*	9.8	9.4	10.2
Savannah CSA					
13-051-0017	Market Streee	11.7*	10.0	n/a	nfa
13-051-0091	Mercer Middle School	12.2*	9.2*	9.0	10.2
13-185-0003	Valdosta CBSA	9.7*	8.6*	8.5	8.9

Attachment B: Annual Means and Design Values

*incomplete data per 40 CFR 50 Appendix N (less than 75% data capture for each quarter)

⁹ Monitor ceased operation at the end of 2012.

Attachment C: Design Value Report

UNITED STATES ENVIRONMENTAL PI	ROTECTION AGE	NCY
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User ID: JJJ					DE	SIGN V	ALUE RE	PORT						
Report Request ID:	1218259			R	eport Code:	A	4P480						May. 3	30, 201
	Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region		
		13												
		01	113											
		45	037											
		47	065											
		47	107											
PROTOC	COL SELECTIONS			1										
Parameter														
Classification I	Parameter Me	thod I	Duration											
DESIGN VALUE	88101			1										
SEI	LECTED OPTIONS							7						
Option Type				Option	Value									
SINGLE EVENT PROCE	USER	EX	CLUDE REC	GIONALL	CONCURRED	EVENTS	3	,						
SITE METADATA M	ERGE			STREET	ADDRESS									
PDF FILES				Y	ES									
QUARTERLY DATA IN W	ORKFILE			ľ	10									
AGENCY ROLE				P	DAO									
DATE	CRITERIA		7									APPLICABLE STANDARDS		
Start Date	End Date	3										Standard Description		
2013	2013											PM25 24-hour 2006		
												PM25 Annual 2006		

Report Date: May, 30, 2014

Notes: I. Computed design values are a snapshot of the data at the time the report las run (may not be all data for year).

Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
Annual Values not meeting completeness criteria are marked with an asterisk (***).

Page 1 of 8

Report Date: May. 30, 201.4

Pollutant: Site-LevelPM2.5 - Local Conditions (88101) Design Value Year: 2013 Standard Units: Micrograms/cubic meter (LC)(105) REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS. NAAQS Standard: PM25 24-hour 2006 / PM25 Annual 2006 Statistic: Annual Weighted Mean Level: 15 State Name: Alabama Statistic: Annual 98th Percentile Level: 35 2012 201.3 2011 24-Hour | Annual Site ID 1 | Cred. Comp. 98th Wtd. Cert& lcred.Comp. 98th Ntd. Cert& | Cred.Comp. 98th Ntd. Cert& IDesign validiDesign Valid STREET ADDRESS Eval 1 Days Ortrs Perctil Mean 1 Days Ortrs Perctil Mean 1 Days Ortrs Perctil Eval IValue Ind. IValue 122 4 22.0 **Y** 120 4 24.2 11.4 Y 121 4 29.5 12.3 25 y 01-113-0001 10.0 11.2 y St. Patrick Catholic Church, BROAD STREET

Computed design values are a snapshot of the data at the time the report Has run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis. 3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page 2 of B

1.

Pollutant: Site-LevelPM2.5 - Local Conditions (88101) Design Value Year: 2013 Standard Units: Micrograms/cubic meter (LC)(105) REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS. NAAOS Standard: PM25 24-hour 2006 / PM25 Annual 2006 Statistic: Annual Weighted Mean Level: 15 State Name: Georgia Statistic: Annual 98th Percentile Level: 35 2013 2012 2011 24-Hour | Annual Site ID Cert& IDesign ValidiDesign Valid Wtd. Cert& | Cred.Comp. 98th Wtd. Cert& | Cred.Comp. 98th Wtd. I Cred. Comp. 98th STREET ADDRESS Value Ind. / Value .!!!! I Days Ortrs Perctil Mean Eval : Days Ortrs Perctil I Days Ortrs Perctil y 348 13-021-0007 342 4 20.5 10.0 4 24.5 11.3 N 316 3 29.7* 14.2* \mathbf{v} 25 N 11.8 N Allied Chemical, 600 Guy Paine Road, Macon, Georgia 31206 13-021-0012 115 4 18.3 8.2 y 109 4 18.2 9.0 y 104 3 23.9* 11.0* Y 20 N 9.4 N Georgia Forestry Commission, 5615 Riggins Mill Road, Dry Branch, Georgia, 31020 10.0 y 97 42.8 11.7* Y 13-051-0017 104 4 23.8 3 33 N 10.8 N 402 Market Street, Savannah, Georgia, 31408 y 95 4 2 20.3* 9.2 -У 92 3 44.6 12.2* Y 28 N 10.2 N 13-051-0091 106 17.8 9.0 Mercer Middle School, 201 Rommel Avenue, Savannah, Georgia 31408 y 101 23.5* 10.7* 23 N 13-059-0002 100 4 28.0 9.7 3 16.4* 9.3 -У 101 3 У 9.9 N FIRE STATION 117, 2350 BARNETT SHOALS RD, ATHENS, GA 30603 20.8 10.8 102 25.5* 12.7* - y 21 N 11.1 N 116 18.1 9.7 У 3 13-063-0091 4 y 116 -4 Georgia DOT, 25 Kennedy Drive, Forest Park, GA 30297 311 3 . 3 21 N 13-067-0003 347 4 19.5 9.6 y 340 4 18.9 10.1 5 24.5* 11.5* 10.4 N GA National Guard, 1901 lcCollum Parkvlay, Kennesavl, Georgia, 30144 9.8 105 10.6 N 119 17.5 У 3 24.0* 11.3* У 21 N 13-067-0001 4 Aguatic Center, 3675 Macland Road, Powder Springs, Georgia, 30127 356 12.0 У 21 v 10.5 v 13-089-0002 365 4 18.7 9.3 358 4 19.5 10.2 V 4 23.11 \mathbf{N} 2390-B Wildcat Road, Decatur GA 30034 . 332 17.6 10.1 313 24.5* 11.6* y 21 N 13-089-2001 J. Y 3 10.8 N Doarville Health Center, 3760 Park Avenue, Doraville, Georgia 30340 13-095-0007 364 4 25.7 10.0 y 244 1 24.9* 10.6* 312 3 28.8* 12.1* Y 26 N 10.9 N N Turner Elementary School, 2001 Leonard Ave, Albany, Georgia, 31705

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk (***).

Page 3 of 8

Pollutant: Site-LevelPM2.5 - Local Conditions (88101) Design Value Year: 2013 Standard Units: Micrograms/cubic meter (LC)(105) REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS. NAAOS Standard: PM25 24-hour 2006 / PM25 Annual 2006 Statistic: Annual Weighted Mean Level: 15 State Name: Georgia Statistic: Annual 98th Percentile Level: 35 2013 2012 2011 24-Hour Annual Site ID / Wtd. Certs Cred.Comp. 98th Wtd. Certs Cred.Comp. 98th Cred. Comp. 98th Wtd. Cert& !Design ValidiDesign Valid STREET ADDRESS Eval Days Ortrs Perctil !ean Eval Days Ortrs Perctil 1 Value .MM .: Days Ortrs Perctil IValue Ind. 4 y 308 20.3 10.6 297 3 12.5* 31 22 N 10.8 N 318 18.7 9.4 4 Y 25.8* 13-115-0003 COOSA ELEM.SCHOOL, InlY.20, ROME, GA 30165 13-121-0032 356 .1 19.8 10.2 Y 317 3 22.9* 11.7* y 21 N 10.9 N E RIVERS SCH 8 PEACHTREE BATTLE AVE ml. ATLANTA, GA 26.8* 13-121-0039 105 3 20.4* 10.4* y. 96 3 20.2* 11.3* У 98 3 13.1* 1. 22 N 11.6 N Fire Station #8, 1711 Marietta Blvd, Atlanta, Georgia, 30318 7.5 * 13-127-0006 96 2 18.7* B.2* y 66 0 14.5* N 74 1 26.9* 8.9* N 20 N 8.2 N RISLEY MIDDLE SCHOOL, 2900 ALBANY ST., BRUNSWICK, GA 31520 18.3 8.9 20.0 10.3 25.9* 11.0* - Y 13-135-0002 116 4 v 119 .5 \mathbf{N} 99 3 21 N 10.1 N Gllinnett Technical College, 5150 Sugarloaf Parkway, Lallrenceville, Georgia, 30043 13-139-0003 108 4 16.9 8.5 v 114 4 16.6 9.3 Y 105 3 24.8* 10.7* Y 19 N 9.5 N Boys and Girls Club, 1 Positive Place, Gainesville, Georgia, 30501 13-153-0001 118 4 18.3 8.7 v 114 19.4 9.5 102 3 22.9* 11.4* У 20 N 9.9 N 4 N. /arner Robins Air Force Base, Memorial Park, 800 S. 1st St, Narner Robins, Georgia 31088 106 4 19.1 8.5 v 103 14.4* 8.6 * 81 3 28.1* 9.6* 21 N 13-185-0003 3 V N 89 N S.L. Mason Elementary School, 821 West Gordon Street, Valdosta, Georgia, 31601 24.0* 11.8* 13-215-0001 120 4 20.0 9.7 v 104 3 10.8* y 103 3 24.2* У 23 N 10.8 N Muscogee City Health Department, 1958 Bth Avenue, Columbus, Georgia, 31904 13-215-0008 84 4 22.0 9.9 v 58 4 20.4 10.2 52 3 27.3* 11.4* V 23 N 10.5 N Columbus Airport, 3100 Thruway Drive, Columbus, Georgia, 31909 116 4 26.0 9.7 y 114 4 27.5 10.4 104 11.9* 13-215-0011 y 3 26.2* Y 27 N 10.7 N Cusseta Road Elementary School, .4150 Cusseta Road, Columbus, Georgia, 31903

Notes: 1. Computed design values are a snapshot of the data at the time the report liss run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked llith an asterisk ('*').

Page 4 of 8

Report Date: Hay, 30, 2014

Pollutant: Site-LevelP	PM2.5	- Loc	cal Cond	litions	5 (8810)1)	Des	ign Val	ue Yea	ir: 2	013								
Standard Units: Microg	rams/	cubic	c meter	(LC)()	105)	106	REP	ORT EXC	LUDES	MEASU	REMENT	S WI	TH REGI	ONALLY	CONCUP	RED E	ENT	FLAGS.	
NAAQS Standard: PM25 2	4-10u	200	IO # EM2	25 Minn	uai 20	500													
Statistic: Annual Statistic: Annual	Weig 98th	hted h Per	Mean centile	Lev Lev	el: 1 el: 3	5		Stat	te Name	e: 0	Georgi	а							
			201	3				201	12				203	11		24-H	2110	1 annus	- 1
Site ID /	ICred.	.Comp.	98th	Wtd.	Cert&	lcree	i.Comp.	98 th	Wtd.	Certs	Cred	.Comp.	98th	Wtd.	Certa	!Design	Valic	liDesign	Valid
STREET ADDRESS	Days	Qrtrs	Perctil		Eval	Days	Qrtrs	Perctil			Days	Qrtrs	Perctil		Eval	!Value	Ind.	Value	Ind.
13-223-0003	111	4	19.1	8.5	У	113	4	17.1	8.8	У	104	3	22.4*	10.7*	У	20	ы	9.3	И
King Farm, 160 Ralph King B	Path,	Rockma	irt, Georg	gia, 301	153														
13-245-0005					*	107	-1	22.7	10.8	У	101	3	23.6*	12.1*	y	23	N	11.4	11
Medical College of Georgia,	, Goss	Lane,	Augusta,	, GA, 30	0901														
13-245-0091	111	4	17.7	9.2	У.	109	4	22.0	10.4	У	99	3	27.6*	11.7*	У	22	N	10.5	N
Bungalow Road Elem School,	2216	BUNGAL	ON RD, AU	JGUSTA G	GA 3090	06													
13-295-0002	95	3	22.9*	10.0	• у	104	4	19.0	10.5	У	98	3	24.5*	10.8*	У	22	N	10.5	N
601 Maple St, Lot#6, Rossvi	lle G	A 3074	11																
13-303-0001	110	4	21.8	9.4	У	107	4	20.7	9.8	У	101	.3	27.2*	11.3*	N	23	N	10.2	14
Washington County Health De	epartm	ent, 2	201 Mornir	ngside D	Drive,	Sande	rsville	e, Georgi	a 31082	2									
13-319-0001	105	4	21.6	9.8	У	108	4	22.3	10.9	M	101	3	24.7*	12.9*	У	23	ы	11.2	14
GORDON, GA 105 RAILROAD ST,	GORDO	N, GA	31031																

Notes: 1. Computed design values are a snapshot of the data at the time the report Was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page S of 8

Report Date: lay. 30, 2014

Design Value Year: 2013 Pollutant: Site-LevelPM2.5 - Local Conditions (88101) Standard Units: Micrograms/cubic meter (LC) (105) REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS. NAAOS Standard: PM25 24-hour 2006 / PM25 Annual 2006 Statistic: Annual Weighted Mean Level: 15 State Name: South Carolina Statistic: Annual 98th Percentile Level: 35 2013 2012 2011 24-Hour Annual Site ID 1 Cred. Comp. 98th Wtd. Cert& iCred.Comp. 98th l'ltd. Cert& iCred.Comp. 98th Wtd. Cert& !Design Valid / Design Valid STREET ADDRESS Days Ortrs Perctil Days Ortrs Perctil Eval Days Ortrs Perctil Eval Jvalue Ind. : Value Ind. 115 4 19.2 8.7 113 4 16.5 8.9 y 111 4 22.8 10.4 20 y 45-037-0001 9.3 V 660 WOODYARD ROAD [Trenton]

Computed design values are a snapshot of the data at the time the report thas run (may not be all data for year).

1.

2. Some FM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis. 3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Page 6 of 8

Report Date: May. 30, 2014

Pollutant:Site-LevelP Standard Units:Microg NAAQS Standard:PM25 2	M2.5 rams/ 4-hou	- Loc cubic r 200	cal Cond meter)6 / PM2	(LC) (25 Anni	s(8810 105) 1al 2()1))06	Des REP	ign Val ORT EXC	ue Ye	ar: 2 MEASU	013 JREMEN	FS WIN	TH REGIO	ONALLY	CONCU	RRED EV	ENT	FLAGS.	
Statistic: Annual Statistic: Annual	Weig 98th	hted Perc	Mean centile	Lev Lev	el: 1 el: 3	.5 5		Stat	te Nam	e: :	fennes	see							
			201	3				201	2				201	1		24-H	ur	I Annu	al
Site ID /	Cred.	Comp.	98th	Wtd.	Cert&	ICred	.Comp.	98th	Wtd.	Cert&	I Cred	.Comp.	98th	ltd.	Certs	!Design	Vali	diDesign	Valid
STREET ADDRESS	Days	Qrtrs	Perctil		Days		Qrtrs	Perctil			i Days	Qrtrs	Perctil			IValue	Ind.	i <u>Value</u>	Ind.
47-065-0031	110	4	20.0	9.3	s	122	-4	18.3	10.1	У	106	-4	23.9	11.1	S	21	У	10.1	5
1517 TOMBRAS AVENUE, EAST F	RIDGE																		
47-065-1011	61	4	15.5	9.2	S	60	4	21.7	10.0	У	61	-4	21.1	10.3	S	19	У	9,8	У
SODDY DAISY H.S. 00618 SEC	HAYOU	RD																	
47-065-4002	122	4	18.7	8.9	S	120	4	16.9	10.0	N	115	4	23.0	11.1	S	20	У	10.0	У
RIVERSIDE SUBSTATION 911 S	SISKIN	DR																	
47-107-1002	108	4	16.6	8.8	S	110	3	17.6*	9.1	* S	106	-4	24.9	10.6	У	20	N	9.5	N
SAINT MARK AME ZION CHURCH,	707 1	ORTH .	JACKSON S	ST. Athe	ens TN	37303													

Computed design values are a snapshot of the data at the time the report \.las run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

1.

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Report Date: May. 30, 2014

CERTIFICATION EVALUATION AND CONCU ENCE FLAG HEAVINGS

FLAG	leaning
H	The monitoring organization has revised data from this monitor since the
	most recent certification letter received from the state.
结	The certifying agency has submitted the certification letter and required
	summary reports, but the certifying agency and/or EPA has determined
	that issues regarding the quality of the ambient concentration data cannot
	be resolved due to data completeness, the lack of performed quality
	assurance checks or the results of uncertainty statistics sharm in the
	ALIP255 report or the certification and quality assurance report.
5	The certifying agency has submitted the certification letter and required
	summary reports. A value of "5" conveys no Regional assessment regarding
	data quality per sa. This flag will remain until the Region provides an "N" or
	"Y" concurrence flag.
u	Uncertified. The certifying agency did not submit a required certification
	letter and summary reports for this monitor even though the due date has
	passed, or the state's certification letter specifically did not apply the
	certification to this monitor.
2	Ce tification is not required by 40 CFR 58.15 and no conditions apply to be
	the basis for assigning another flag value
X	The certifying agency has submitted a c rtification letterf and EPA has no
	unresolved reservations about data quality (after reviewling the letter, the
	attached summary reports, the amount of quality assumance data
	submitted to AQS, the quality statistics, and the highest reported
	-Concentrations).

Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).

2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.

3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

1.

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ATTACHMENT D: PM 2.S Continuous Monitor Comparability Assessment







