



State of Ohio Environmental Protection Agency

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Ms. Lynn Buhl
Regional Administrator
Attn.: R-19J
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604

Re: Comments on Intended Designations in Ohio for the 2006 Fine Particulate Matter Air Quality Standards

Dear Administrator Buhl:

On August 18, 2008, Ohio EPA received your letter and detailed description of areas where EPA intends to modify Ohio's recommendations on air quality designations for the 2006 24-hour PM_{2.5} standards. Ohio EPA would like to take this opportunity to comment on these proposed designations.

USEPA intends to maintain the nonattainment status in five townships, with a partial nonattainment county designation. Ohio EPA believes that Ashtabula Township (Ashtabula Co.), Franklin Township (Coshocton Co.), Monroe and Sprigg Townships (Adams Co.), and Cheshire Township (Gallia Co.), designated as partial nonattainment areas, should be designated as attainment areas.

The designation of a township as nonattainment for the PM_{2.5} standards, and therefore the designation of a county as partial nonattainment for such standards, has to do primarily with the existence of an electric generating unit (power plant) in the township. Ohio EPA believes that the existence of an electric generating unit in a township should not be the sole factor in determining nonattainment.

Some emissions from the electric generating units located in Monroe and Sprigg Townships (Adams Co.) and Cheshire Township (Gallia Co.) are already controlled with highly efficient control equipment, and other emissions are expected to be controlled within year 2009. Besides electrostatic precipitators, all these units have installed flue gas desulfurization systems, which are currently operational or will be operational by July 2009. Moreover, all the units have selective catalytic reduction (SCR) systems, which will be operating for the entire ozone season, controlling and reducing nitrogen oxides emissions. In addition, some units, in both counties, will have SCR equipment in continuous operation (the whole year) starting in year 2009, increasing the reduction of nitrogen oxides emissions.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

The emissions from the Conesville power plant located in Franklin Township (Coshocton Co.) have long been controlled with efficient control equipment, and some of the units are expected to have additional controls by the year 2009. Currently there are four operating units and two units that shut down permanently during 2006. Besides electrostatic precipitators, these operating units have installed or are planning to install flue gas desulfurization systems. Moreover, the largest unit (800 MW) will have a selective catalytic reduction (SCR) system in place and operating for the entire ozone season, starting in June 2009. In addition, this unit (800 MW) will have SCR equipment in continuous operation (the whole year) starting in year 2011, increasing the nitrogen oxides emission reductions.

The actual emissions from Cleveland Electric Illuminating power plant, located in Ashtabula Township (Ashtabula Co.), are less than a three percent (3%) of its allowable emissions. Besides having electrostatic precipitators, the plant has only operated one unit since 2002. In addition, Ashtabula County has insignificant emissions due to low population and insignificant commuting traffic. Ohio EPA believes the above factors demonstrate that Ashtabula is not contributing to the PM_{2.5} problems in this nonattainment area. Moreover, a Cleveland area windrose (enclosed) shows that, for most of the time, the wind is coming from the southwest; consequently it is likely that high pollution levels being detected in Ashtabula Co. are coming from counties south and west of this County and not from local sources.

USEPA's proposal also designates Mahoning Co., Trumbull Co., and Clark Co. as nonattainment counties, and maintains the nonattainment status of Lawrence and Scioto Counties. Ohio EPA believes that all five counties should be maintained and/or designated as attainment areas.

Lawrence and Scioto Counties have low population and insignificant commuting traffic. Moreover, due to the location of the monitor in Lawrence County, it is likely the PM_{2.5} levels being detected are coming from sources across the Ohio River in West Virginia and Kentucky. The low emissions from sources in Lawrence and Scioto counties are not a significant source of PM_{2.5}. Moreover, Ohio EPA questions the rationale used by USEPA (Region 4) for not recommending Greenup County (Kentucky) for nonattainment designation. Greenup Co. is located in the border of Scioto and Lawrence Counties (both in Ohio). Based on emission levels and CES values, and applying the same analysis that has apparently resulted in Scioto and Lawrence Counties being considered as nonattainment areas, it would seem that Boyd, Lawrence, and Greenup Counties in Kentucky are also candidates for the 24-hour PM_{2.5} nonattainment designation.

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Clark County (Dayton-Springfield MSA) has low emissions and a low commuting level into Montgomery County. In addition, a Dayton-Springfield area windrose (enclosed) shows that most of the time the wind is coming from the southwest; consequently it is likely that high pollution levels being detected in Clark Co. are coming from counties south and west of this county and not from local sources.

Ohio EPA's initial recommendation to USEPA (December 2007) recommended Mahoning and Trumbull Counties as nonattainment areas for the new 24-hour PM_{2.5} standard; however, since that time air quality has improved in the area.

Furthermore, in making the nonattainment designations, USEPA is considering air quality data from 2005-2007. During 2005, due to flooding in the western United States, low sulfur coal supplies were disturbed which led to higher sulfur content coal being used in power plants; and, as a result, the ambient air data in the eastern portion of the country, showed significant deterioration. Air quality data after 2005 has been improving considerably and consistently. Ohio EPA urges USEPA to provide adequate time so that Ohio EPA can submit data from 2006-2008 for use in determining which areas are in compliance with the new 24-hour PM_{2.5} standard. These data (2006-2008) are more representative of the current ambient air quality throughout the State.

From the attached "Air Quality Data" table, it can be observed that all monitors, from USEPA proposed nonattainment areas discussed in this letter, show no violations or slightly violate the 2006 24-hour PM_{2.5} standard. When considering air quality data from 2006-2008, it can be seen that Lawrence and Scioto Counties have no monitored violations.

Finally, beginning in 2004, refineries began phasing in a new sulfur level for gasoline due to the new federal standard for fuel. This standard requires the average sulfur level to be no greater than 30 parts per million (ppm). This represents a 10-fold reduction where average national levels in 2002 were 300 ppm. Also beginning in 2006, a new requirement for ultra low sulfur diesel fuel (15 ppm) began phasing in. As with gasoline, this represents an enormous decrease from the 380 ppm average measured in 2002. These sulfur reductions are a key contributor to large scale vehicular emission reductions in SO₂, which in turn, will continue to have a positive impact on reducing PM_{2.5} emission.

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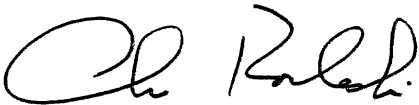
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The consequences of having a nonattainment designation status will have a significant economic impact on the townships as well as the entire counties discussed above, which are already experiencing severe fiscal problems, high rates of unemployment, population migration, and the other social dislocation associated with such economic distress. Given these circumstances and the absence of data which solidly demonstrate that such nonattainment designations are appropriate, I strongly encourage US EPA to reconsider its original findings.

Attached you will find a detailed table of all emission reduction control systems installed by the electric generating units mentioned above, and a table with air quality data, including year 2008 for the latest data available, from all monitors in or adjacent the USEPA's proposed, new nonattainment designations.

I appreciate the opportunity to provide additional recommendations and will work cooperatively with USEPA Region 5 staff as we both review new ambient data, including 2008 data, and USEPA prepares their announcement on their intended designations. If you have any questions concerning these recommendations, please feel free to contact Carolina Prado of the Division of Air Pollution Control at (614) 644-2310.

Sincerely,



Chris Korleski
Director

cc: Cheryl L. Newton, Acting Director
Air and Radiation Division

Enclosures

Annual PM2.5 air quality data (for USEPA proposed partial nonattainment townships)

Site	County	Year										Average '99-'01	Average '00-'02	Average '01-'03	Average '02-'04	Average '03-'05	Average '04-'06	Average '05-'07	Average '06-'08	
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008									
39-035-0013	Cuyahoga	17.9	19.7	17.7	16.9	16.7						18.43	18.10	17.10	16.80	16.70				
39-035-0027		18.4	17.2	17.8	16.5	15.4	15.6	17.3	13.0	14.5	14.9	17.80	17.17	16.57	15.83	16.10	15.30	14.93	14.12	
39-035-0034		15.6	15.0	14.3	13.4	12.6	16.3	11.5	13.6	12.8		15.30	14.97	14.23	13.43	14.10	13.47	13.80	12.65	
39-035-0038		21.0	20.1	19.8	17.7	17.6	17.5	19.2	14.9	16.3	15.8	20.30	19.20	18.37	17.60	18.10	17.20	16.80	15.65	
39-035-0045		13.9	18.8	17.4	16.2	16.4	15.3	19.3	14.1	15.3	15.9	16.70	17.47	16.67	15.97	17.00	16.23	16.23	15.09	
39-035-0060		18.6	19.5	17.7	17.5	17.2	16.4	19.4	15.0	15.9	15.9	18.60	18.23	17.47	17.03	17.67	16.93	16.77	15.59	
39-035-0065		17.6	18.5	16.6	15.8	15.6	15.2	18.6	13.1	15.8	17.1	17.57	16.97	16.00	15.53	16.47	15.63	15.83	15.33	
39-035-0066		14.5	15.4	14.6	14.2	13.9	11.7					14.83	14.73	14.23	13.27	12.80				
39-035-1002		15.6	15.0	14.8	15.1	13.9	13.2	16.8	11.6	14.6	14.6	15.13	14.97	14.60	14.07	14.63	13.87	14.33	13.59	
39-049-0024		Franklin	18.4	17.8	17.9	15.8	16.4	15.0	16.4	13.6	14.5	14.1	18.03	17.17	16.70	15.73	15.93	15.00	14.83	14.05
39-049-0025	17.3		17.1	16.9	16.1	15.5	14.6	16.5	13.8	14.7	14.0	17.10	16.70	16.17	15.40	15.53	14.97	15.00	14.16	
39-049-0081	17.1		18.3	16.8	16.2	14.9	13.6	14.6	12.9	13.1	12.4	17.40	17.10	15.97	14.90	14.37	13.70	13.53	12.81	
39-087-0010	Lawrence	17.9	17.4	17.7	15.5	14.3	13.7	17.0	14.4	15.0		17.67	16.87	15.83	14.50	15.00	15.03	15.47	14.70	
39-087-0012											12.6									
39-145-0013	Scioto	24.7	21.1	20.3	16.7	14.7	13.0	16.2	14.3	14.0	13.1	22.03	19.37	17.23	14.80	14.63	14.50	14.83	13.78	

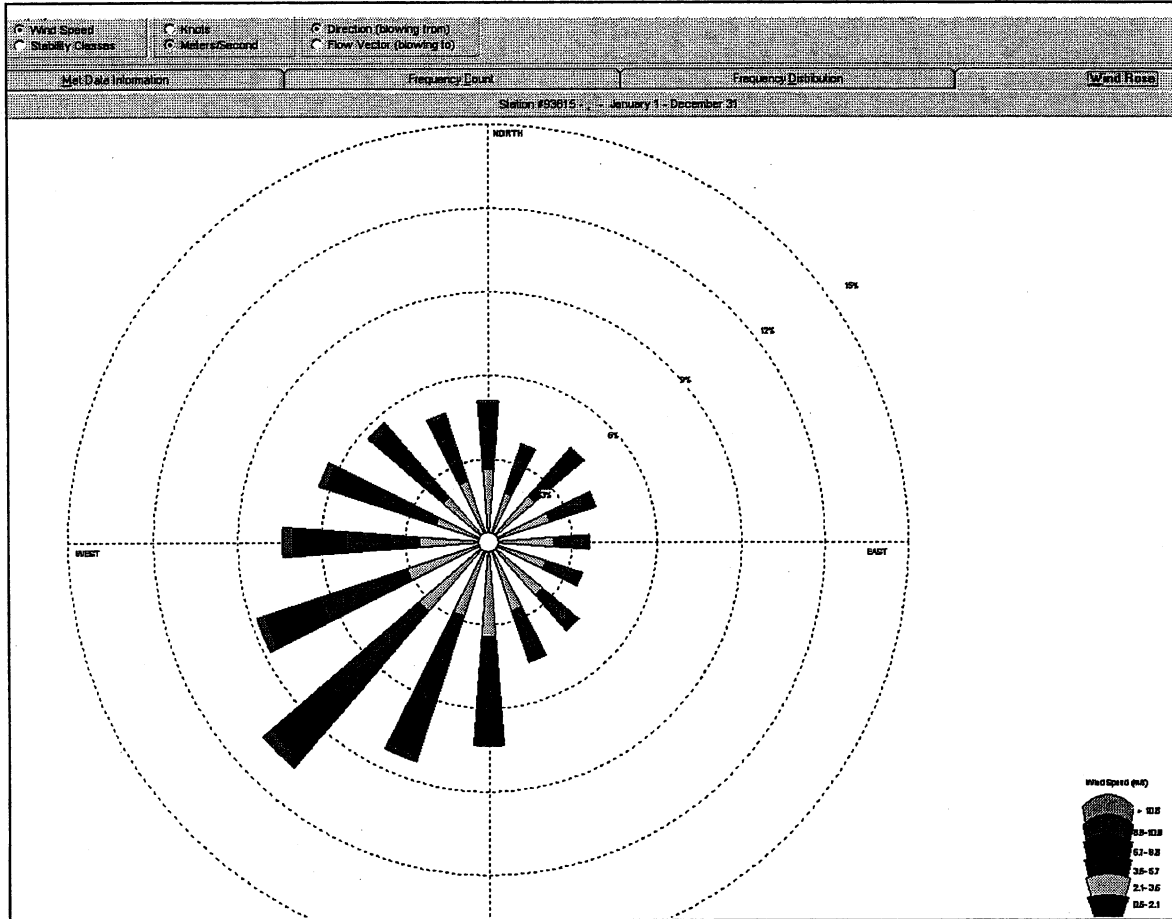
Less than 75% capture in at least one quarter

24-hour PM2.5 air quality data (for USEPA proposed partial nonattainment townships)

Site	County	Year										Average '99-'01	Average '00-'02	Average '01-'03	Average '02-'04	Average '03-'05	Average '04-'06	Average '05-'07	Average '06-'08
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008								
39-035-0013	Cuyahoga	39.7	44.6	43.2	40.1	38.5						42.50	42.63	40.60	39.30				
39-035-0027		47.8	42.6	44.9	40.9	41.3	39.5	35.7	31.5	39.0	37.8	45.10	42.80	42.37	40.57	38.83	35.57	35.40	36.10
39-035-0034			38.1	39.7	36.8	37.2	32.9	43.8	29.1	37.5	34.3		38.20	37.90	35.63	37.97	35.27	36.80	33.63
39-035-0038		49.2	42.4	47.3	44.5	47.3	42.5	51.2	36.1	39.7	40.1	46.30	44.73	46.37	44.77	47.00	43.27	42.33	38.63
39-035-0045		21.7	43.6	43.1	38.4	42.2	36.1	46.2	29.5	37.0	36.3	36.13	41.70	41.23	38.90	41.50	37.27	37.57	34.27
39-035-0060		43.0	45.8	42.7	39.8	45.5	42.2	49.5	31.0	38.7	40.3	43.83	42.77	42.67	42.50	45.73	40.90	39.73	36.67
39-035-0065		41.3	43.3	42.2	37.3	39.1	36.1	47.9	27.8	39.1	36.0	42.27	40.93	39.53	37.50	41.03	37.27	38.27	34.30
39-035-0066		33.8	36.9	40.2	35.3	34.4	32.0					36.97	37.47	36.63	33.90				
39-035-1002		34.4	28.1	39.8	35.7	31.9	30.5	41.6	27.7	35.2	30.2	34.10	34.53	35.80	32.70	34.67	33.27	34.83	31.03
39-049-0024		Franklin	39.8	40.0	41.0	39.2	39.2	35.1	45.0	34.0	34.2	26.5	40.27	40.07	39.80	37.83	39.77	38.03	37.73
39-049-0025	39.6		41.0	39.0	40.2	37.0	35.5	44.9	34.0	35.5	39.0	39.87	40.07	38.73	37.57	39.13	38.13	38.13	36.17
39-049-0081	36.5		36.5	41.3	39.3	33.7	34.1	34.7	31.2	33.5	25.3	38.10	39.03	38.10	35.70	34.17	33.33	33.13	30.00
39-087-0010	Lawrence	34.2	40.2	41.0	42.4	29.3	31.2	38.5	30.8	35.2		38.47	41.20	37.57	34.30	33.00	33.50	34.83	33.00
39-087-0012											26.0								
39-145-0013	Scioto	43.2	43.5	49.2	42.1	32.8	29.4	40.3	30.5	37.5	24.3	45.30	44.93	41.37	34.77	34.17	33.40	36.10	30.77

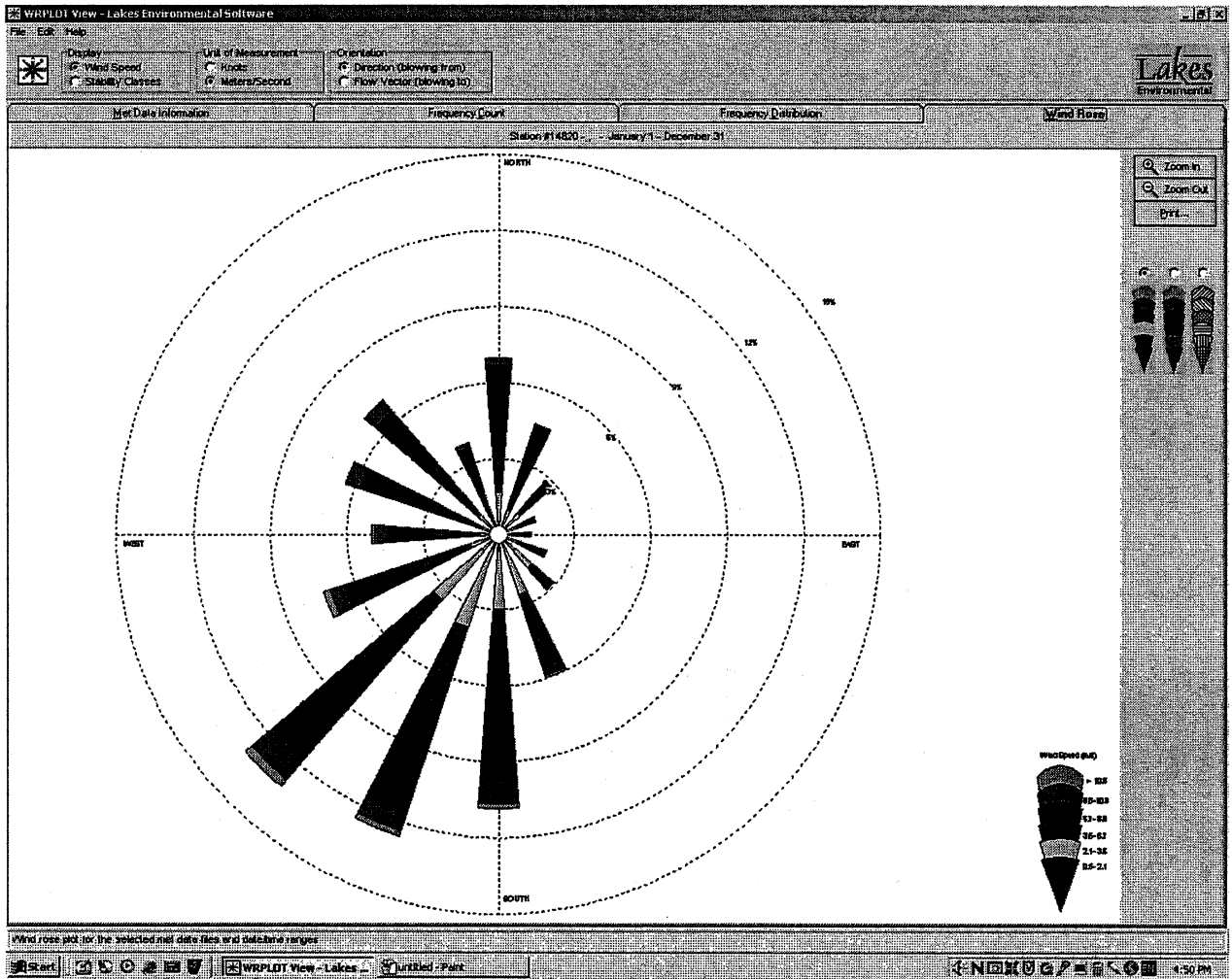
Less than 75% capture in at least one quarter

Dayton Area Windrose



Source: Lakes Environmental Software

Cleveland Area Windrose



Source: Lakes Environmental Software

OHIO COAL EGU CONTROL SYSTEMS (August 29, 2008)

PLANT	Unit & MW	COUNTY	Electrostatic Precip. (ESP)	Flue Gas Desulfurization (Scrubber)	SCR	SNCR	SCR/SNCR Continuous Operation Per Consent Decree	Total MW
AEP - Conesville	# 1 (125 MW), shut down 06	Coshocton	Yes	Not planned	No	No		125
AEP - Conesville	# 2 (125 MW), shut down 06	Coshocton	Yes	Not planned	No	No		125
AEP - Conesville	# 3 (165 MW)	Coshocton	Yes	Not planned	No	No		165
AEP - Conesville	# 4 (800 MW)	Coshocton	Yes	Estimated Completion 6/09	Estimated Operational 6/09	No	Yes, by 12/31/2010	800
AEP - Conesville	# 5 (425 MW)	Coshocton	Yes	Yes	No	No		425
AEP - Conesville	# 6 (425 MW)	Coshocton	Yes	Yes	No	No		425
AEP - Gavin	# 1 (1300 MW)	Gallia	Yes	Yes	Yes	No	Yes, by 1/1/2009	1300
AEP - Gavin	# 2 (1300 MW)	Gallia	Yes	Yes	Yes	No	Yes, by 1/1/2009	1300
Dayton P&L - JM Stuart	# 1 (573 MW)	Adams	Yes	Operating 7/08, will run all year	Yes, plan to run all year starting May 2009	No		573
Dayton P&L - JM Stuart	# 2 (573 MW)	Adams	Yes	Operating 7/08, will run all year	Yes, plan to run all year starting May 2009	No		573
Dayton P&L - JM Stuart	#3 (573 MW)	Adams	Yes	Operating 7/08, will run all year	Yes, plan to run all year starting May 2009	No		573
Dayton P&L - JM Stuart	#4 (573 MW)	Adams	Yes	Operating 7/08, will run all year	Yes, plan to run all year starting May 2009	No		573
Dayton P&L - Killen	# 2 (587 MW)	Adams	Yes	Yes, running since 6/07, 95%+ removal	Yes, since 2004	No		587
First Energy - Ashtabula	# 7 (244 MW)	Ashtabula	Yes	No	No	No		244
Ohio Valley Electric - Kyger Creek	# 1 (217 MW)	Gallia	Yes	Operational June 2009	Yes, unknown due to lack of legal obligation to operate year long	No		217
Ohio Valley Electric - Kyger Creek	# 2 (217 MW)	Gallia	Yes	Operational July 2009	Yes, unknown due to lack of legal obligation to operate year long	No		217
Ohio Valley Electric - Kyger Creek	# 3 (217 MW)	Gallia	Yes	Operational May 2009	Yes, unknown due to lack of legal obligation to operate year long	No		217
Ohio Valley Electric - Kyger Creek	# 4 (217 MW)	Gallia	Yes	Operational April 2009	Yes, unknown due to lack of legal obligation to operate year long	No		217
Ohio Valley Electric - Kyger Creek	# 5 (217 MW)	Gallia	Yes	Operational March 2009	Yes, unknown due to lack of legal obligation to operate year long	No		217
								8,873

DP & L - Stuart Plant by May 2009 all Scrubbers/SCRs run all year (as per Sierra Club consent decree and will be in Title V AEP consent decree requires SCR's to operate continuously.
AEP's Muskingum River units and Conesville have a staged combustion process to minimize NOx emissions