

Analysis of technical information for Ohio 8-hr Designation 120 day letters November 20, 2003

The following is a list of the metropolitan areas in Ohio and the summary of the analysis performed on the states 8-hour ozone designation recommendations. Additional data is available as part of the docket (i.e. tables and charts summarizing data as well as the Ohio EPA submittal).

Canton-Massillon CMSA

Includes Stark and Carroll Counties

Ohio EPA Recommendation:

Ohio EPA recommended Stark County as nonattainment and Carroll county as attainment.

Issue:

Designating less than the presumptive area

EPA 120 day Recommendation:

EPA agrees with Ohio EPA to designate less than the presumptive boundary by designating nonattainment for Stark county and attainment for Carroll county.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where USEPA included technical information to supplement the State recommendation. Copies of the data are included in the docket.

1) Emissions and Air Quality

Carroll County VOC and NOx emissions are less than 2000 tons/year while Stark County is over 20,000 tons/year of each pollutant. **This is a small county in terms of mass emissions.**

1999 NEI emissions:

	<u>Carroll</u>	<u>% of CMSA</u>	<u>Stark</u>
VOC	1,435	6%	22,840
NOX	1,963	11%	15,755

2) Population Density and degree of Urbanization

The population density is 73 people per square mile.

Carroll county is over 96% wooded or agriculture. **There are no significant urban areas in this county.** Carroll counties population is less than 30,000 while Stark is over 375,000. **This is very small in terms of county population. The majority of the population is in Stark county.**

	<u>Carroll</u>	<u>% of CMSA</u>	<u>Stark</u>
2000 population	27,400	7%	374,700

3) Monitoring Data

Stark County has a monitor that is violating the 8 hour standard. There is no monitor in Carroll County.

4) Location of Emissions Sources

There are few point sources in Carroll county. Source listings from 1999 NEI are available in the docket. This data indicates 1 source over 100 t/y of NO_x and zero VOC sources of this size.

5) Traffic and Commuting Patterns

There are 7,000-8,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Carroll County from 2000-2010 is expected to be -1.9%. The population in the county is small with projected negative growth.

7) Meteorology

Ohio EPA indicated that Carroll County should be attainment due to its location south of the Canton urban/industrial area which would not be expected to be impacted by, nor should it be considered a receptor for, the Canton area.

8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**

9) Jurisdictional Boundaries - **Ohio EPA did not rely on jurisdictional boundaries to support its recommendation. Stark county was nonattainment for the 1 hour standard.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NO_x SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. Based on our analysis of the 11 factors we agree with Ohio EPA to designate Carroll county as attainment. The majority of emissions and population is located within Stark county. Carroll county is not a high growth area or an area with significant commuters and traffic. Carroll county is rural, with a low population density and does not significantly contribute to the CMSA.

Cincinnati-Hamilton OH-KY-IN CMSA

Includes Brown, Butler, Clermont, Hamilton and Warren counties in Ohio. Clinton county is an adjacent county with a violating monitor. Other counties outside the state included in the CMSA are Dearborn and Ohio counties in Indiana (Region 5) and Boone, Kenton, Campbell, Gallatin, Grant and Pendleton counties in Kentucky (Region 4).

Ohio EPA Recommendation:

Ohio EPA recommended all counties in the Ohio portion of CMSA as nonattainment except for

Brown County. Ohio EPA also did not make a recommendation on whether to include Clinton county (adjacent to the CMSA) with the Cincinnati-Hamilton nonattainment area. The Ohio EPA did recommend Clinton county as nonattainment.

Issue:

Designating less than the presumptive area and adding an adjacent county with a violating monitor to the nonattainment area.

EPA 120 day Recommendation:

EPA agrees with Ohio EPA to designate less than the presumptive boundary by designating nonattainment for all Ohio counties in the CMSA except for Brown county. EPA also recommends that Clinton County be included with the Cincinnati-Hamilton nonattainment area

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where EPA included additional technical information. Copies of the raw data are included in the docket.

1) Emissions

Ohio EPA noted that Brown county VOC and NOx emissions are less than 2,500 tons/year of each pollutant. CMSA emissions of the remaining Ohio counties are over 90,000 tons per year VOC and over 150,000 tons per year NOx. **Brown County is considered a small county in terms of the mass emissions and population as well as very small in terms of percentage of the overall CMSA**

1999 NEI emissions:

<u>Brown % of CMSA</u>		
VOC	2,054	<1%
NOX	3,067	<1%

2) Population Density and degree of Urbanization

The population density of Brown County is 86 people per square mile. The majority of the population is in the central part of the CMSA in Hamilton County. There are no large urbanized areas within Brown county. Brown county is over 97% wooded or agriculture. Brown county's population is less than 45,000 while the total population for the CMSA is 1,979,202.

<u>Brown % of CMSA</u>		
2000 population	40,770	2%

3) Monitoring Data

In the Ohio portion of the CMSA, Hamilton, Clermont, Butler and Warren counties contain monitors that are violating the 8 hour standard. There is no monitor in Brown County. There is a monitor in Clinton County that is violating the 8-hr standard.

4) Location of Emissions Sources

There are few significant sources in Brown county. Source listings from 1999 NEI are available in the docket. There are no major sources (100t/y) of VOC or NOx.

5) Traffic and Commuting Patterns

There are 11,000-12,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Brown County from 2000-2010 is expected to be 8.3%. Since the 2000 population is 40,770, this growth rate is not going to significantly increase the population in comparison to the population for the CMSA.

7) Meteorology

Ohio EPA stated that the majority of Brown county is located south/southwest of the Cincinnati urban/industrial area which would not be expected to be significantly impacted by, nor should it be considered a receptor for, the Cincinnati area.

8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**

9) Jurisdictional Boundaries - **The old 1 hour ozone boundary did not include Brown county.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NOx SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors we agree with Ohio EPA to designate Brown county as attainment. Brown County is a very small portion of the overall CMSA in terms of population and emissions. The majority of emissions and population are located within the rest of the CMSA. Brown county is rural, with a low population density, population and mass emissions.

We also recommend that Clinton county be included with the Cincinnati-Hamilton nonattainment area. Ohio EPA recommended Clinton county as nonattainment. They did not take a position of whether Clinton county should be a part of with the Cincinnati CMSA. This county contains a violating monitor that is upwind of emissions in the remainder of the CMSA. The Clinton county monitor appears to be an indicator of air quality for the nonattainment area.

Cleveland-Akron CMSA

Includes Lorain, Medina, Cayahoga, Lake, Geauga, Summitt, Portage and Ashtabula counties.

Ohio EPA Recommendation:

Ohio EPA recommended the entire CMSA as nonattainment but also recommended that the nonattainment area be split into 2 separate nonattainment areas. One area would include the Akron area counties of Summitt and Portage while the other area would contain Lorain, Medina, Cayahoga, Lake, Geauga, and Ashtabula counties.

Issue:

Splitting a CMSA into 2 separate nonattainment areas.

EPA 120 day Recommendation:

EPA intends to designate the CMSA as one nonattainment area. The Ohio EPA provided no technical justification or analysis to indicate a basis for splitting the CMSA.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where USEPA included technical information to supplement the State recommendation. Copies of the data are included in the docket.

- 1) Emissions and Air Quality - **Emissions are distributed throughout the CMSA.**
- 2) Population Density and degree of Urbanization - **Population densities are Lorain (578), Medina (358), Cuyahoga (3,040), Lake (997), Geauga (225), Ashtabula (146), Summitt (1,315), Portage (309). The entire CMSA is a mix of urbanized areas and cities connected by freeways.**
- 3) Monitoring Data - **There are monitors violating the 8-hr standard in Lorain, Medina, Cuyahoga, Summit, Portage, Geauga, Lake and Ashtabula counties.**
- 4) Location of Emissions Sources - **larger sources are concentrated in Cuyahoga, Summitt and Lake counties.**
- 5) Traffic and Commuting Patterns - **Ohio EPA did not provided an analysis of commuting patterns to support its recommendation.**
- 6) Expected Growth - **The entire CMSA is projected to have positive growth from 2000-2010.**
- 7) Meteorology - **the area is considered one airshed**
- 8) Geography -**Ohio EPA did not rely on geography to support its recommendation.**
- 9) Jurisdictional Boundaries - **The MPOs in that area already work together and will need to in the future in order to plan an attainment strategy for the CMSA. The entire CMSA was designated as one nonattainment area for the 1-hour ozone standard.**
- 10) Level of Emission Controls - **The entire CMSA implements the same control strategies. Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**
- 11) Regional Emission Reductions - **Ohio EPA is part of the NOx SIP call.**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In the 120 day letters we intend to designate the entire CMSA as one nonattainment area. The Ohio EPA provided no technical justification or analysis to indicate a basis for splitting the CMSA. The CMSA is large but planning should be done together to implement emission reduction strategies.

Columbus CMSA

Includes Delaware, Madison, Franklin, Pickaway, Licking and Fairfield counties. Knox county is an adjacent county with a violating monitor.

Ohio EPA Recommendation:

Ohio EPA recommended all counties in the CMSA as nonattainment except Pickaway county. Ohio EPA also recommended that Knox county, an adjacent county with a violating monitor be considered a separate nonattainment area.

Issue:

Designating less than the presumptive area and an adjacent county with a violating monitor recommended as a separate nonattainment area.

EPA 120 day Recommendation:

EPA agrees with Ohio EPA to designate less than the presumptive boundary by designating nonattainment for all counties in the CMSA except for Pickaway county. EPA also recommends that Knox County be included as part of the Columbus nonattainment area. The Ohio EPA provided no technical justification or analysis to indicate a basis for separating Knox county from the CMSA.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where EPA included additional technical information. Copies of the raw data are included in the docket.

1) Emissions

Ohio EPA noted that Pickaway county VOC and NOx emissions are 3,736 and 5,914 tons/year of each pollutant. CMSA emissions are 90,632 tons per year VOC and 109,802 tons per year NOx. **Pickaway is considered a small county in terms of the mass emissions.**

1999 NEI emissions:	<u>Pickaway</u>	<u>% of CMSA</u>
	VOC 3,736	5%
	NOX 5,914	8%

2) Population Density and degree of Urbanization

The population density of Pickaway County is 105 people per square mile. The majority of the population is in the central part of the CMSA is in Franklin County. Circleville is the largest city in Pickaway county at less than 14,000 people. Pickaway county is over 97% wooded or agriculture. Pickaway county's population is just over 52,000 while the total CMSA is 1,540,157.

	<u>Pickaway</u>	<u>% of CMSA</u>
2000 population	52,727	3 %

3) Monitoring Data

In the CMSA, Madison, Delaware, Franklin, and Licking counties contain monitors that are violating the 8 hour standard. There is also a violating monitor in Knox county, adjacent to the CMSA. There is no monitor in Pickaway County.

4) Location of Emissions Sources

There are few significant sources in Pickaway county. Source listings from 1999 NEI are available in the docket. This data indicates that Pickaway county has 1 major VOC source and 3 major NO_x sources (i.e. sources greater than 100 t/y).

5) Traffic and Commuting Patterns

There are 14,000-15,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Pickaway County from 2000-2010 is expected to be 11.8%. Since the 2000 population is 52,727, this growth rate is not significant given the population of the CMSA. Pickaway grew by less than 5,000 people since 1990.

7) Meteorology

Ohio EPA stated that Pickaway county is not expected to be impacted by, nor should it be considered a receptor for, the Columbus area. **Pickaway is upwind from the CMSA.**

8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**

9) Jurisdictional Boundaries - **Ohio EPA did not rely on jurisdictional boundaries to support its recommendation.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NO_x SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors, we agree with Ohio EPA to designate Pickaway county as attainment. Pickaway County is a small portion of the overall CMSA in terms of population and emissions. The majority of emissions and population are located within the rest of the CMSA. Pickaway county is rural, with a low population density, population and mass emissions and does not significantly contribute to the CMSA.

We also recommend that Knox county be included with the Columbus nonattainment area. This county contains a violating monitor that is a receptor for air quality in the CMSA. The Ohio EPA provided no technical justification or analysis to indicate a basis for separating Knox county from the CMSA. The Ohio EPA did recommend nonattainment for Knox county.

Dayton-Springfield CMSA

Includes Miami, Montgomery, Clark and Green counties.

Ohio EPA Recommendation:

Ohio EPA recommended that the entire CMSA be designated a nonattainment area.

Issue:

No issues. Ohio EPA has followed EPA guidance and recommends designating the entire CMSA as nonattainment, which is the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio's recommendation to designate the Dayton-Springfield CMSA as a nonattainment area. There are violating monitors in all four counties.

Huntington-Ashland CMSA

Includes Lawrence county in Ohio, Cabell and Wayne counties in West Virginia (Region 3) and Boyd, Greenup, and Carter Kentucky (Region 4).

Ohio EPA Recommendation:

Ohio EPA recommended that Lawrence county, the entire Ohio portion of the CMSA, be designated as part of the nonattainment area.

Issue:

No issues. Ohio EPA has followed EPA guidance and recommends designating the entire portion of the CMSA as nonattainment, which is the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio's recommendation to designate Lawrence county as part of the Huntington-Ashland nonattainment area. The Lawrence county monitor was violating from 2000-2002 but with preliminary 2003 data it appears to be meeting the standard. There are other violating monitors in additional counties within the CMSA. However, the presumption is that Lawrence county be included as part of the nonattainment area because it is a county within a CMSA with a violating monitor. The Ohio EPA would have to address the 11 factors if they intend to change their recommendation.

Lima CMSA

Includes Allen and Auglaize Counties

Ohio EPA Recommendation:

Ohio EPA recommended Allen County as nonattainment and Auglaize county as attainment.

Issue:

Designating less than the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio EPA to designate less than the presumptive boundary by designating nonattainment for Allen county and attainment for Auglaize county.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate

where USEPA included technical information to supplement the State recommendation. Copies of the data are included in the docket.

1) Emissions and Air Quality

Auglaize County VOC and NOx emissions are less than 4,000 tons/year while Allen County has 12,500 and 14,600 tons per year of NOx and VOC. **Auglaize county is 20-24% of the emission in the CMSA, it is a small county in terms of mass emissions.**

1999 NEI emissions:	<u>Auglaize</u>	<u>% of CMSA</u>
	VOC 3,115	20%
	NOX 3,224	24%

2) Population Density and degree of Urbanization

The population density is 116 people per square mile for Auglaize and 268 people per square mile for Allen.

Auglaize county is over 95% wooded or agriculture. **There are no significant urban areas in this county.** Allen county is 84% wooded pr agriculture. Auglaize county's population is less than 50,000 while Allen is over 100,000. **This is very small in terms of county population. The majority of the population is in Allen county.**

	<u>Auglaize</u>	<u>% of CMSA</u>
2000 population	46,611	30%

3) Monitoring Data

Allen County has a monitor that is violating the 8 hour standard. There is no monitor in Auglaize County.

4) Location of Emissions Sources

There are few point sources in Auglaize county. Source listings from 1999 NEI are available in the docket. This inventory shows that there are 0 VOC sources and 1 NOx source over 100 tons/year. Over one third of the VOC and over two thirds of the NOx are from mobile sources.

5) Traffic and Commuting Patterns

There are 12,000-13,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Auglaize County from 2000-2010 is expected to be 7.7%.

7) Meteorology

Ohio EPA indicated that Auglaize is located upwind (to the south) of Lima on summer ozone days and would not be expected to significantly contribute to the nonattainment problem, nor would Auglaize County be expected to be impacted by emissions from, nor should it be considered a receptor for, the Lima urban industrial area.

- 8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**
- 9) Jurisdictional Boundaries - **Ohio EPA did not rely on jurisdictional boundaries to support its recommendation.**
- 10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**
- 11) Regional Emission Reductions - **Ohio is part of the NO_x SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors, we agree with Ohio EPA to designate Auglaize county as attainment. The majority of emissions and population is located within Allen county. Auglaize county is rural. It also contains a small amount of mass emissions.

Mansfield CMSA

Includes Crawford and Richland counties.

Ohio EPA Recommendation:

Ohio EPA recommended that the CMSA be designated attainment.

Issue:

No issues. There are no violating monitors in the CMSA.

EPA 120 day Recommendation:

EPA agrees with Ohio's recommendation to designate Crawford and Richland counties as attainment.

Parkersburg-Marietta CMSA

Includes Washington county in Ohio and Wood county in West Virginia (Region 3).

Ohio EPA Recommendation:

Ohio EPA recommended that Washington county, the entire Ohio portion of the CMSA, be designated as part of the Parkersburg-Marietta nonattainment area.

Issue:

No issues. Ohio EPA has followed EPA guidance and recommends designating Washington county as part of the nonattainment area, which is the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio's recommendation to designate Washington county as part of the Parkersburg-Marietta CMSA as nonattainment. There is a violating monitor in Washington county.

Steubenville-Weirton CMSA

Includes Jefferson county in Ohio and Beaver and Washington county, PA (Region 3).

Ohio EPA Recommendation:

Ohio EPA recommended that Jefferson county, the entire Ohio portion of the CMSA, be designated a nonattainment area.

Issue:

No issues. Ohio EPA has followed EPA guidance and recommends designating Jefferson county as part of the Steubenville-Weirton nonattainment area, which is the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio's recommendation to designate Jefferson county in the Steubenville-Weirton CMSA as nonattainment. There is a violating monitor in Jefferson county.

Toledo CMSA

Includes Fulton, Lucas and Wood counties.

Ohio EPA Recommendation:

Ohio EPA recommended Lucas and Wood counties as nonattainment and Fulton county as attainment.

Issue:

Designating less than the presumptive area.

EPA 120 day Recommendation:

EPA agrees with Ohio EPA to designate less than the presumptive boundary by designating Lucas and Wood as nonattainment and Fulton county as attainment.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where EPA included additional technical information. Copies of the raw data are included in the docket.

1) Emissions

Ohio EPA noted that Fulton county VOC and NOx emissions are less than 5,000 tons/year of each pollutant while Lucas and Wood counties combine for nearly 50,000 tons per year of each.

Fulton county:

1999 NEI emissions:

	<u>% of CMSA</u>	
VOC	4,559	11%
NOX	5,240	10%

2) Population Density and degree of Urbanization

The population density of Fulton County is 103.5 people per square mile. The majority of the population density is in Lucas (1,337) and Wood (196). Fulton county is over 96%

wooded or agriculture. Fulton county's population is 42,084.

	<u>Fulton % of CMSA</u>	
2000 population	42,084	7 %

3) Monitoring Data

In the CMSA, Lucas and Wood contain monitors that are violating the 8 hour standard. There is no monitor in Fulton County.

4) Location of Emissions Sources

There are few significant sources in Fulton county. Source listings from 1999 NEI are available in the docket. This inventory shows that there are 2 VOC sources and 1 NOx source over 100 tons/year.

5) Traffic and Commuting Patterns

There are 12,000-13,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Fulton County from 2000-2010 is expected to be 1%.

7) Meteorology

Ohio EPA stated that Fulton county is located upwind (to the west) of the Toledo urban/industrial area on summer ozone days and would not be expected to significantly contribute to the nonattainment problem, nor would Fulton county be expected to be impacted by, nor should it be considered a receptor for, the Toledo population.

8) Geography - **Ohio EPA did not rely on jurisdictional boundaries to support its recommendation.**

9) Jurisdictional Boundaries - **The old 1 hour ozone boundary included only Lucas and Wood counties.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NOx SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors, we agree with Ohio EPA to designate Fulton county as attainment. Fulton County is a small portion of the overall CMSA in terms of population and emissions. The majority of emissions and population are located within the rest of the CMSA. Fulton county is rural, with a low population density, population and mass emissions.

Wheeling CMSA

Includes Belmont county in Ohio and Ohio and Marshall counties in West Virginia (Region 3)

Ohio EPA Recommendation:

Ohio EPA recommended that Belmont county be designated attainment.

Issue:

Designating less than the presumptive area as nonattainment.

EPA 120 day Recommendation:

EPA intends to modify the Ohio recommendation to include Belmont county as part of the Wheeling nonattainment area.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate where EPA included additional technical information. Copies of the raw data are included in the docket.

1) Emissions

Ohio EPA noted that Belmont county VOC emissions are 4,750 t/yr and NOx emissions are 14,342 tons per year. **The primary NOx source is a power plant covered by the NOx SIP call. It is not known if controls would be installed as part of the SIP call.** Ohio EPA also indicated that the MSA VOC and NOx emissions are 11,572 and 72,905 tons per year.

1999 NEI emissions:	<u>Belmont</u>	<u>% of CMSA</u>
	VOC 4,419	36%
	NOX 11,314	16%

2) Population Density and degree of Urbanization

The population density of Belmont County is 131 people per square mile. I-70 runs through Belmont county and Wheeling is on the border of Belmont West Virginia counties.

Belmont county is over 95% wooded or agriculture. Belmont county's population is just over 70,000 while the MSA total is 153,172.

	<u>Belmont</u>	<u>% of CMSA</u>
2000 population	70,226	46%

3) Monitoring Data

There are no monitors in Belmont county. There are violating monitors in Ohio and Marshall West Virginia.

4) Location of Emissions Sources

There are few significant point sources in Belmont county. Source listings from 1999 NEI are available in the docket. For NOx, there is one major source which is the R.E. Burger power plant (5,885 t/y). For VOC, there are no sources over 100 tons/year. The majority of the rest of the emissions are from highway mobile sources.

5) Traffic and Commuting Patterns

There are 11,000-12,000 workers commuting in or out of the county.

6) Expected Growth

According to the US Census the expected growth of Belmont County from 2000-2010 is expected to be -10.4%. Ohio EPA indicated that the population in both Belmont and the MSA is decreasing (-3.8% 1990-2000).

7) Meteorology

Ohio EPA stated that Belmont county is located west of the Wheeling urban/industrial area. The area would not expect to be impacted by, nor should it be considered a receptor for, the Wheeling area.

8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**

9) Jurisdictional Boundaries - **Ohio EPA did not rely on jurisdictional boundaries to support its recommendation.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NO_x SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors, we intend to modify the Ohio EPA recommendation and include Belmont county as part of the Wheeling nonattainment area. Belmont county was included because it is a large percentage of the emissions and population in the presumptive area. It is also a larger county in terms of mass emissions and population. The recommendation was not compelling to exclude Belmont county.

Youngstown-Warren CMSA

Includes Trumbull, Mahoning and Columbiana counties in Ohio.

Ohio EPA Recommendation:

Ohio EPA recommended that Columbiana county be designated as a nonattainment area, that Trumbull and Mahoning be designated as a nonattainment area and that Mercer county, Pennsylvania be considered a separate nonattainment area.

Issue:

Splitting a CMSA into 2 or more nonattainment areas.

EPA 120 day Recommendation:

The EPA intends to modify the Ohio recommendation to designate one single nonattainment area that includes Trumbull, Mahoning, Columbiana and Mercer county, PA.

Technical Analysis:

This is a summary of how the 11 factors are addressed by the Ohio EPA. Bold areas indicate

where EPA included additional technical information. Copies of the raw data are included in the docket. The Ohio EPA provided no technical justification to split the area.

1) Emissions - **In the Ohio counties: Columbiana VOC is 5,968 t/y and NOx is 6,073 t/y, Mahoning VOC is 15,562 t/y and NOx 12,853 t/y, Trumbull VOC is 17,352 t/y and NOx is 18,878 t/y. Mercer county PA VOC is 8,511 t/y and NOx is 7,930 t/y.**

2) Population Density and degree of Urbanization

The population density is: Trumbull (365), Mahoning (620), Columbiana (211)

3) Monitoring Data

In the Ohio portion of the CMSA, Trumbull and Mahoning counties contain monitors that are violating the 8 hour standard. There is no monitor in Columbiana County. There is also a violating monitor in Mercer county, PA.

4) Location of Emissions Sources - **Source listings from 1999 NEI are available in the docket.**

5) Traffic and Commuting Patterns - **The Ohio EPA did not provide an analysis of traffic and commuting patterns in relation to their recommendation.**

6) Expected Growth

2000-2010 growth projections - Trumbull (5%), Mahoning (7%), Columbiana (2%)

7) Meteorology

Ohio EPA stated that Mercer county should be considered a separate, adjacent nonattainment area since this area is primarily impacted by the Pittsburgh MSA during periods of high ozone. In the PA recommendations, they recommended Mercer county to be included with the 3 Ohio counties as one nonattainment area. PA indicated in their recommendations that the Mercer county monitor is a downwind monitor for the Youngstown area.

8) Geography - **Ohio EPA did not rely on geography to support its recommendation.**

9) Jurisdictional Boundaries - **While the CMSA for Ohio includes only Columbiana, Mahoning and Trumbull counties, the old 1 hour ozone boundary included all 3 Ohio counties as well as Mercer county, PA. The presumptive area is the larger of the 1 hour boundary or the CMSA.**

10) Level of Emission Controls - **Ohio EPA did not provide information regarding level of emission controls. Some RACT rules implemented by Ohio EPA have been statewide.**

11) Regional Emission Reductions - **Ohio is part of the NOx SIP call**

Region 5 review:

No one factor is the basis for the designation decision. All of the 11 factors were analyzed together. In our analysis of the 11 factors, we intend to modify the Ohio EPA recommendation to have one nonattainment area that includes Trumbull, Mahoning and Columbiana, Ohio along with Mercer county, PA. There is no monitor in Columbiana county so it is unclear how the Ohio EPA would be able to show the area getting into attainment. **The presumption is the larger of the 1 hour boundary or the CMSA. The old 1 hour boundary includes the 3 counties in Ohio and Mercer county, PA so that is the presumptive area.** The Ohio EPA provided no technical analysis or rationale for splitting the presumptive area.

