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Air and Radiation Docket and Information Center  
Environmental Protection Agency  
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RE: **Proposed designations for the 2006 24-hour fine particle (PM2.5) standards  
Docket ID No. EPA-HQ-OAR-2007-0562**

Wisconsin Manufacturers & Commerce (WMC) submits these comments in response to the Environmental Protection Agency's (EPA) proposed designations for the 2006 24-hour fine particle (PM2.5) standards, and consistent with the public comment notice published in the September 2, 2008, issue of the Federal Register, 73 Federal Register 51259.

WMC is the state's largest business trade association, with over 4,000 members in the manufacturing, service, health care, retail, energy, banking and insurance sectors of our economy. Roughly one in every four workers in Wisconsin is employed by a WMC member company. WMC is dedicated to making Wisconsin the most competitive state to do business in the nation, and toward that goal, we support consistent, cost-effective and market-driven regulatory approaches that recognize a balance between environmental protection and the competitiveness of Wisconsin's jobs and economy.

WMC members are substantially impacted by the proposed nonattainment designations for 6 Wisconsin counties with respect to the 24-hour PM2.5 standard because the designations may result in significant barriers to economic development in those areas, as well as costly regulatory burdens resulting in adverse impacts on Wisconsin jobs. For these reasons, great care must be taken to ensure that the Administrator designates only those counties that are clearly required to be designated under the Clean Air Act. Similarly, those counties that are not required to be designated, especially counties with comparatively low emissions, should not be designated.

#### **I. RACINE COUNTY SHOULD NOT BE DESIGNATED NONATTAINMENT**

Racine County has been proposed for designation as nonattainment despite the lack of monitor data indicating a violation of the PM2.5 standard in that county. WMC disagrees that Racine County contributes to violations in Milwaukee County, and does not believe the data supports EPA's preliminary conclusion that Racine County has high emissions of PM2.5 or its precursors. We also note in detail below that emissions associated with commuting trips between Racine

County and Milwaukee County are minimal, and should not be characterized as contributing to violations in Milwaukee County.

#### **A. RACINE COUNTY HAS LOW PM2.5 EMISSIONS**

In proposing Racine County as nonattainment for the 24-hour PM2.5 standard, EPA noted that Racine County has “relatively high emissions.” WMC respectfully disagrees with this assertion. EPA emission data presented in *Table 1: PM2.5 24-hour Component Emissions, and CES* on page 14 of the EPA’s August 18, 2008 response letter to Governor Doyle (Table 1) indicates total stationary and mobile source PM2.5 emissions attributable to Racine County to be 1,242 tons in 2005, which is 10.1% of the total PM2.5 emissions for the 6-county Southeastern Wisconsin area, and 7.3% of the regional total for all counties listed in Table 1. Rather than being “relatively high,” the data suggests Racine County plays a small role in PM2.5 emissions.

#### **B. RACINE COUNTY HAS LOW PM2.5 PRECURSOR EMISSIONS**

The two primary precursor emissions for PM2.5 pollution are oxides of nitrogen (NOx) and sulfur dioxide (SO2). Racine County’s emissions for these two pollutants are extraordinarily low, and could not reasonably be considered to contribute to PM2.5 violations in Milwaukee County. According to EPA data in Table 1, SO2 emissions attributable to Racine County in 2005 were 761 tons. This amount represents a mere 1.3% of the total SO2 emissions for the 6-county Southeastern Wisconsin area, and 1.0% of the regional total for all counties listed in the table. Racine County NOx emissions are also quite low, with Table 1 attributing 5,858 tons of NOx in 2005. This amount represents just 7.4% of the total NOx emissions for the 6-county Southeastern Wisconsin area, and 5.0% of the regional total for all counties listed in Table 1. Thus, Racine County’s contribution for the most significant precursors associated with PM2.5 pollution is quite low.

#### **C. STATIONARY SOURCES IN RACINE COUNTY DO NOT CONTRIBUTE TO DOWNWIND PM2.5 VIOLATIONS IN MILWAUKEE COUNTY**

For the reasons described in Section (E) below, the magnitude of stationary source PM2.5 emissions in Racine County is relevant to the determination of whether the County should be designated nonattainment. By any measure, stationary source emissions in Racine County are minimal, and could not reasonably be considered to contribute to air quality violations in Milwaukee County.

The DNR Air Emission Inventory generally requires stationary sources to report emissions of most criteria pollutants above a threshold of 3 tons per year (See Chapter NR 438 Wis. Adm. Code). Although specific data relative to PM2.5 is not reported to the DNR, facilities do report their PM10 emissions on an annual basis. Reported PM10 emissions conservatively represent stationary source PM2.5 emissions, as PM2.5 emissions are necessarily a fraction or subset of PM10 emissions. Consequently, the reported PM10 emissions would generally overstate the stationary source contribution to PM2.5 emissions.

The DNR's emission inventory for calendar year 2005 indicates particulate emissions for Racine County were significantly below those appearing in Table 1 of the EPA response letter. Specifically, DNR data indicates total stationary source PM10 emissions in Racine County for 2005 of 147.2 tons. As a result, stationary sources in Racine County contributed, at the very most, 1.2% of all PM2.5 emissions in the 6-county Southeastern Wisconsin area, or 0.9% of the regional total for all counties listed in Table 1. Again, these percentages conservatively assume that 100% of reported PM10 emissions are a surrogate for PM2.5 emissions. In reality, the fraction attributable to PM2.5 emissions would be smaller, and even these minimal percentages are therefore overstated. Nevertheless, this "worst-case" analysis provides evidence of the very limited role which stationary sources in Racine County play in PM2.5 emissions.

Similarly, PM2.5 precursor emissions from stationary sources in Racine County are quite low, and could not reasonably be considered to contribute to PM2.5 violations in Milwaukee County. According to the DNR's emission inventory, stationary sources in Racine County reported 321.2 tons of NOx emissions in 2005. This accounts for a mere 0.4% of the total NOx emissions for the 6-county Southeastern Wisconsin area, and 0.3% of the regional total for all counties listed in Table 1.

Stationary sources in Racine County also emit very low levels of SO2. The DNR's emission inventory data indicates 254.5 tons of SO2 from stationary sources in Racine County for 2005. This amount represents 0.4% of the total SO2 emissions for the 6-county Southeastern Wisconsin area, and 0.3% of the regional total for all counties listed in Table 1. We believe the DNR data proves beyond doubt that stationary sources in Racine County contribute a minute fraction of total PM2.5 (1.2%), NOx (0.4%) and SO2 (0.4%) emissions in the 6-county Southeastern Wisconsin area, and therefore do not contribute to downwind PM2.5 violations in Milwaukee County.

#### **D. EMISSIONS ASSOCIATED WITH RACINE COUNTY COMMUTING PATTERNS ARE MINIMAL**

Page 15 of the EPA response letter to Governor Doyle presents data in Table 4 which estimates a total of 17,060 commuting trips from Racine County to "any violating county." Since Milwaukee County is the only "violating county" in the region, we assume the data is intended to convey roughly 17,000 commuting trips from Racine County to Milwaukee County. This figure is consistent with 2000 data from the U.S. Census Bureau, which indicates roughly 13,000 commuting trips from Racine County to Milwaukee County.

The estimated 17,000 commuting trips from Racine County to Milwaukee County represent 2.6% of all commuting trips occurring within Milwaukee County, according to the data set forth in Table 4. While we believe this ratio, on its face, bespeaks the very limited impact of Racine County commuting on the overall commuting within Milwaukee County, a closer look at associated emissions underscores this point.

WMC examined emission factors for passenger cars and light-duty trucks published in EPA's August, 2005 document titled "Average Annual Emissions and Fuel Consumption for Gasoline-

Fueled Passenger Cars and Light Trucks.” (EPA420-F-05-022). Page 2 of this document states, in relevant part:

*The most current version of the computer model used by EPA to estimate average in-use emissions from highway vehicles is MOBILE6.2. EPA, the states, and others use this model to estimate total emissions of pollutants generated by highway vehicles in various geographic areas and over specific time periods. The emission rates (also commonly termed emission factors) and annual emissions presented for gasoline-fueled passenger and light-duty trucks in this fact sheet are based on national average data representing the in-use fleet as of July 1, 2005... These estimates are suitable for use in obtaining first-order approximations of vehicle emissions.*

Based upon the above description of the data appearing in the EPA fact sheet, WMC believes it to be a reliable source for estimating emissions associated with commuting trips from passenger vehicle and light-duty trucks.

While the August, 2005 EPA Fact Sheet provides PM<sub>2.5</sub> and NO<sub>x</sub> emission factors for both cars and light-duty trucks, there is no quantification given of the ratio between these two vehicle types. For the purpose of estimating emissions associated with commuting trips, we have assumed a 1:1 ratio between passenger cars and light-duty trucks. We believe this likely overstates the contribution from light-duty trucks, and therefore overstates emissions.

The average emission factor tables from the EPA Fact Sheet are copied below.

### Average Emissions and Fuel Consumption for Passenger Cars<sup>1</sup>

Pollutant/Fuel	Emission and Fuel Consumption Rates (per mile driven)	Calculation	Annual Emissions and Fuel Consumption
Hydrocarbons (HC)	1.36 grams (g)	1.36 g/mi * 12,000 mi/yr * 1 lb/454g	36.0 lb
Carbon monoxide (CO)	12.4 g	12.4 g/mi * 12,000 mi/yr * 1 lb/454 g	328 lb
Nitrogen oxides (NO <sub>x</sub> )	0.95 g	0.95 g * 12,000 mi/yr * 1 lb/454 g	25.1 lb
Particulate matter (PM <sub>10</sub> )	0.0052 g	0.0052 g * 12,000 mi/yr * 1 lb/454 g	0.14 lb
Particulate matter (PM <sub>2.5</sub> )	0.0049 g	0.0049 g * 12,000 mi/yr * 1 lb/454 g	0.13 lb
Carbon dioxide (CO <sub>2</sub> )	369 g	369 g/mi * 12,000 mi/yr * 1 lb/454 g	9760 lb
Gasoline consumption	0.0417 gallons (gal)	(12,000 mi/yr) / (24.0 mi/gal)	500 gal

**Average Emissions and Fuel Consumption for Light-Duty Trucks<sup>2</sup>**  
(most pick-up trucks, SUVs, etc.)

Pollutant/Fuel	Emission and Fuel Consumption Rates (per mile driven)	Calculations	Annual Emissions and Fuel Consumption
Hydrocarbons (HC)	1.61 grams (g)	$1.617 \text{ g/mi} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	53.2 lb
Carbon monoxide (CO)	15.7 g	$15.7 \text{ g/mi} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	519 lb
Nitrogen oxides (NO <sub>x</sub> )	1.22 g	$1.22 \text{ g} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	40.3 lb
Particulate matter (PM <sub>10</sub> )	0.0065 g	$0.0065 \text{ g} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	0.21 lb
Particulate matter (PM <sub>2.5</sub> )	0.0060 g	$0.0060 \text{ g} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	0.20 lb
Carbon dioxide (CO <sub>2</sub> )	511 g	$511 \text{ g/mi} * 15,000 \text{ mi/yr} * 1 \text{ lb/454 g}$	16,900 lb
Gasoline Consumption	0.0578 gallons (gal)	$(15,000 \text{ mi/yr}) / (17.3 \text{ mi/gal})$	867 gal

The annual emission factors for passenger vehicles assume 12,000 miles driven per year, while the emission factors for light-duty trucks assume 15,000 miles driven per year. Based upon these values, and utilizing the EPA estimate of 17,060 commuting trips in 2005 attributable to Racine County, the resulting emissions appear in the table below. Note that the table assumes an equal number of commuting trips between passenger vehicles and the higher-polluting light-duty trucks.

	Passenger Vehicles	Light-Duty Trucks	Total
<b>Commuting Trips</b>	8,530	8,530	17,060
<b>PM2.5 Emissions</b>	0.55 tons	0.85 tons	1.4 tons
<b>NOx Emissions</b>	107.1 tons	171.9 tons	279 tons

We believe the emissions reflected in the above table, which may be overstated based upon the use of generous assumptions, demonstrate the very limited impact of PM2.5 and NOx emissions associated with commuting in Racine County. Consequently, we do not believe there is a basis to conclude that Racine County commuting patterns contribute to PM2.5 violations in Milwaukee County, as those emissions represent a very small fraction of emissions in Milwaukee County and the region as a whole.

**E. DESIGNATING RACINE COUNTY AS NONATTAINMENT WILL NOT RESULT IN MEANINGFUL EMISSION REDUCTIONS OR DOWNWIND AIR QUALITY IMPROVEMENTS**

In deciding whether to designate Racine County as nonattainment for the 24-hour PM2.5 standard, it is critically important to analyze the magnitude of stationary source emissions

within the County. The Clean Air Act establishes a process for addressing air quality nonattainment through the development of State Implementation Plans (SIP) to reduce emissions. However, the Clean Air Act also generally preempts states from enacting emission control strategies that regulate mobile emission sources (see Section 209, 42 USC §7543). As such, SIP control strategies designed to reduce PM<sub>2.5</sub> pollution will generally be limited to stationary source controls.

Correspondingly, the effectiveness of those stationary source control strategies will be dependent upon the magnitude of stationary source emissions in a given county. For example, it may be possible to design effective PM<sub>2.5</sub> control strategies in counties with high levels of PM<sub>2.5</sub> and precursor emissions. Conversely, it would be difficult or impossible to design effective control strategies in counties with very low PM<sub>2.5</sub> and precursor emissions. As noted above, stationary sources in Racine County contribute a very small fraction of the total PM<sub>2.5</sub> (1.2%), NO<sub>x</sub> (0.4%) and SO<sub>2</sub> (0.4%) emissions in the 6-county Southeastern Wisconsin.

Consequently, control strategies designed to reduce Racine County emissions as part of a SIP planning process associated with an attainment demonstration for Milwaukee County would not provide a meaningful impact on air quality. There simply are not enough stationary source emissions in Racine County to make an appreciable difference. This analysis is relevant to Factor 9, "Level of Control of emission sources," and demonstrates that emission sources subject to SIP controls are already well-controlled. Consistent with EPA's analysis with respect to Kenosha County, which found that a well-controlled power plant does not contribute to violations in Milwaukee County, WMC believes a finding that Racine County does not contribute is similarly justified.

While there is no meaningful air quality benefit associated with designating Racine County as nonattainment, the potential for adverse economic consequences is considerable. The costly barriers to economic development attendant to a nonattainment designation, including emission offset requirements and nonattainment New Source Review air permitting requirements, could have severe impacts on Racine County jobs and the local economy.

## **II. WAUKESHA COUNTY SHOULD NOT BE DESIGNATED NONATTAINMENT**

Waukesha County has been proposed for designation as nonattainment despite the fact that quality-assured monitor data for the years 2005-2007 shows Waukesha County in compliance with the 24-hour PM<sub>2.5</sub> standard. WMC disagrees that Waukesha County contributes to violations in Milwaukee County, and does not believe the data supports EPA's draft conclusion that Waukesha County has high emissions. We also note in detail below that emissions associated with commuting trips between Waukesha County and Milwaukee County are minimal, and could not be characterized as contributing to violations in Milwaukee County. Furthermore, we note that EPA's commuting statistics relative to Waukesha County are overstated by a factor of three, when compared to 2000 U.S. Census Bureau data. We therefore believe EPA used flawed data and assumptions as the basis to propose Waukesha County as nonattainment because of a contribution to violations in Milwaukee County.

### **A. WAUKESHA COUNTY HAS LOW PM2.5 EMISSIONS**

In proposing Waukesha County as nonattainment for the 24-hour PM2.5 standard, EPA noted that Waukesha County has “relatively high emissions.” WMC respectfully disagrees with this assertion. EPA emission data presented in *Table 1: PM2.5 24-hour Component Emissions, and CES* on page 14 of the EPA’s response letter to Wisconsin (Table 1) indicates total stationary and mobile source PM2.5 emissions attributable to Waukesha County to be 2,134 tons in 2005, which is 17.3% of the total PM2.5 emissions for the 6-county Southeastern Wisconsin area, and 12.5% of the regional total for all counties listed in Table 1. Rather than being “relatively high,” the data suggests Waukesha County plays a limited role in PM2.5 emissions.

### **B. WAUKESHA COUNTY HAS LOW PM2.5 PRECURSOR EMISSIONS**

The two primary precursor emissions for PM2.5 pollution are oxides of nitrogen (NOx) and sulfur dioxide (SO2). Waukesha County’s emissions for these two pollutants are extraordinarily low, and could not reasonably be considered to contribute to PM2.5 violations in Milwaukee County. According to EPA data in Table 1, SO2 emissions attributable to Waukesha County in 2005 were 1,020 tons. This amount represents a mere 1.7% of the total SO2 emissions for the 6-county Southeastern Wisconsin area, and 1.3% of the regional total for all counties listed in the table. Waukesha County NOx emissions are also comparatively low, with Table 1 attributing 12,168 tons of NOx in 2005. This amount represents just 15.4% of the total NOx emissions for the 6-county Southeastern Wisconsin area, and 10.3% of the regional total for all counties listed in Table 1. Thus, Waukesha County’s contribution for the most significant precursors associated with PM2.5 pollution is comparatively low.

That being said, we believe the annual NOx emissions of 12,168 tons attributed to Waukesha County in Table 1 appears to be irregularly high. NOx emission of this magnitude are typically associated with counties with a coal-fired power plant or other coal-fired emission units. However, there are no coal fired utility, industrial, commercial or institutional boilers in Waukesha County. As noted below, stationary source NOx emissions in Waukesha County are less than 500 tons per year. We ask the EPA to review data for Waukesha County to determine if the overstatement of commuting trips detailed in Section (D) below has resulted in an overstatement of NOx emissions attributable to the County.

### **C. STATIONARY SOURCES IN WAUKESHA COUNTY DO NOT CONTRIBUTE TO DOWNWIND PM2.5 VIOLATIONS IN MILWAUKEE COUNTY**

For reasons previously stated in these comments, WMC believes the magnitude of stationary source PM2.5 emissions in Waukesha County is relevant to the determination of whether the County should be designated nonattainment. Similar to the case in Racine County, stationary source emissions in Waukesha County are minimal, and could not reasonably be considered to contribute to air quality violations in Milwaukee County.

The DNR’s emission inventory for calendar year 2005 indicates particulate emissions for Waukesha County significantly below those appearing in Table 1 of the EPA response letter. Specifically, DNR data indicates stationary source PM10 emissions in Waukesha County for

2005 of 197.9 tons. As a result, stationary sources in Waukesha County contributed, at the very most, 1.6% of all PM2.5 emissions in the 6-county Southeastern Wisconsin area, or 1.2% of the regional total for all counties listed in Table 1. In reality, the fraction of these emissions attributable to PM2.5 emissions would be much smaller, and these percentages are therefore overstated. Nevertheless, this “worst-case” analysis provides evidence of the very limited role which stationary sources in Waukesha County play in PM2.5 emissions.

Similarly, PM2.5 precursor emissions from stationary sources in Waukesha County are quite low, and could not reasonably be considered to contribute to PM2.5 violations in Milwaukee County. According to the DNR’s emission inventory, stationary sources in Waukesha County reported 428.2 tons of NOx emissions in 2005. This accounts for a mere 0.5% of the total NOx emissions for the 6-county Southeastern Wisconsin area, and 0.4% of the regional total for all counties listed in Table 1.

Stationary sources in Waukesha County also emit very low levels of SO2. The DNR’s emission inventory data indicates 106.6 tons of SO2 from stationary sources in Waukesha County for 2005. This amount represents 0.2% of the total SO2 emissions for the 6-county Southeastern Wisconsin area, and 0.1% of the regional total for all counties listed in Table 1. We believe the DNR data proves beyond doubt that stationary sources in Waukesha County contribute a minute fraction of total PM2.5 (1.6%), NOx (0.5%) and SO2 (0.2%) emissions in the 6-county Southeastern Wisconsin area, and therefore do not contribute to downwind PM2.5 violations in Milwaukee County.

#### **D. EMISSIONS ASSOCIATED WITH WAUKESHA COUNTY COMMUTING PATTERNS DO NOT CONTRIBUTE TO PM2.5 VIOLATIONS IN MILWAUKEE COUNTY**

The EPA response letter to Governor Doyle references data in Table 4 on page 15 which estimates a total of 180,500 commuting trips from Waukesha County to “any violating county.” Because Milwaukee County is the only “violating county” in the region, we assume the data is intended to convey 180,500 commuting trips from Waukesha County to Milwaukee County. This figure is grossly overstated, and inconsistent with data from the U.S. Census Bureau. WMC is concerned that the use of this flawed data may have resulted in a threefold overstatement of commuting trips attributable to Waukesha County. In turn, this flawed data may have resulted in an overestimate of emissions in Waukesha County, and may have skewed the County’s CES score.

The most recent data available to WMC which attributes commuting trips on an individual county-by-county basis is “*MINORITY STATUS OF WORKERS BY COUNTY OF RESIDENCE AND COUNTY OF WORK: 2000*” from the U.S. Census Bureau. A copy of this data is attached for your reference. The data for all workers, regardless of race, appears in the third table. As you will note, this table indicates a total of 61,035 commuting trips originating in Waukesha County, to Milwaukee County. Notably, this total is roughly one-third the number of commuting trips which EPA has attributed to Waukesha County.

While the 2000 Census Bureau data may be a bit dated, the Census Bureau does have statistics for Waukesha County commuting trips in calendar year 2005. This data, which shows a county-

wide total of 182,183 commuting trips from all motorized sources in 2005, is attached for your review. If the EPA data in Table 4 were accurate, 180,500 of 182,183 commuting trips (99%) in Waukesha County have a destination in Milwaukee County. In other words, virtually every person in the civilian labor force in Waukesha County commutes to Milwaukee County. This could not possibly be the case, and stands contrary to the 2000 U.S. Census Bureau data of 61,035 commuting trips from Waukesha County to Milwaukee County.

The U.S. Census Bureau estimate of 61,035 commuting trips from Waukesha County to Milwaukee County, which we believe is a much more reliable and realistic data set, represents just **13.5%** of all commuting trips occurring within Milwaukee County from the 6-county Southeastern Wisconsin area. This figure is substantially lower than the 94% cited by EPA for Waukesha County trips to a “violating county” in Table 4.

Looking more closely at the emission impact of Waukesha County commuting trips to Milwaukee County underscores the very limited impact on air quality. Using the same assumptions and EPA emission factors utilized in the Racine County example above, the following table summarizes Waukesha County emissions attributable to commuting trips.

	<b>Passenger Vehicles</b>	<b>Light-Duty Trucks</b>	<b>Total</b>
<b>Commuting Trips</b>	30,517	30,518	61,035
<b>PM2.5 Emissions</b>	1.98 tons	3.0 tons	4.98 tons
<b>NOx Emissions</b>	382.9 tons	614.9 tons	997.8 tons

Once again, we believe the emission totals in the above table may be overstated based upon the use of generous assumptions with respect to the ratio of cars to trucks, and the attribution of 12,000 and 15,000 annual commuting miles to those vehicle types respectively. Nevertheless, we believe those figures demonstrate the very limited impact of PM2.5 and NOx emissions associated with commuting in Waukesha County. The total PM2.5 emissions of 4.98 tons is a mere 0.09% of all PM2.5 emissions in Milwaukee County, and 0.04% of emissions in the 6-county Southeastern Wisconsin area. The total NOx emissions of 997.8 tons represents just 2.7% of total NOx emissions in Milwaukee County, and 1.3% of emissions in the 6-county Southeastern Wisconsin area. Consequently, we do not believe there is a basis to conclude that Waukesha County commuting patterns contribute to PM2.5 violations in Milwaukee County, because those emissions represent a very limited fraction of emissions in Milwaukee County and the region as a whole.

#### **E. DESIGNATING WAUKESHA COUNTY AS NONATTAINMENT WILL NOT RESULT IN MEANINGFUL EMISSION REDUCTIONS OR DOWNWIND AIR QUALITY IMPROVEMENTS**

As noted in the previous section relative to Racine County, Clean Air Act preemptions with respect to state and local government mobile source emission limitations necessarily focuses SIP emission control strategies on stationary sources. Correspondingly, the effectiveness of those

stationary source control strategies depends in large measure upon the magnitude of stationary source emissions in a given county.

As noted in Section (C) above, stationary sources in Waukesha County contribute a very small fraction of total PM<sub>2.5</sub> (1.6%), NO<sub>x</sub> (0.5%) and SO<sub>2</sub> (0.2%) emissions in the 6-county Southeastern Wisconsin area. As a result, control strategies designed to reduce Waukesha County emissions as part of a SIP planning process associated with an attainment demonstration for Milwaukee County would not provide a meaningful impact on air quality. There simply are not enough stationary source emissions in Waukesha County to make an appreciable difference. This analysis is relevant to Factor 9, "Level of Control of emission sources," and demonstrates that emission sources subject to SIP controls are already well-controlled. Consistent with EPA's analysis with respect to Kenosha County, which found that a well-controlled power plant does not contribute to violations in Milwaukee County, WMC believes a finding that Waukesha County does not contribute is similarly justified.

While there is no meaningful air quality benefit associated with designating Waukesha County as nonattainment, the potential for adverse economic consequences is considerable. The costly barriers to economic development attendant to a nonattainment designation, including emission offset requirements and nonattainment New Source Review air permitting requirements, could have severe impacts on Waukesha County jobs and the local economy.

### **III. COLUMBIA COUNTY SHOULD NOT BE DESIGNATED NONATTAINMENT**

Despite the lack of a violating monitor, EPA has proposed Columbia County as nonattainment based upon the statement that "Columbia County has significant emissions which are commonly upwind on days with high concentrations of PM<sub>2.5</sub>." While WMC agrees that Columbia County has relatively high PM<sub>2.5</sub> precursor emissions, we do not agree with EPA's statement that these emissions are commonly upwind on days where an exceedance is measured in Dane County.

The only evidence provided by EPA relative to the relationship between emissions and meteorology is a "pollution rose" for the Dane County monitor. This diagram has a total of seven red or black icons denoting days for which the monitor exceeded 35 micrograms. Of these seven icons, five (71%) are situated in the diagram so as to indicate that prevailing winds were blowing from a direction either south or southwest of the Dane County monitor. Because Columbia County is located north of Dane County, the EPA "pollution rose" suggests the overwhelming percentage of exceedances in Dane County occur on days when Columbia County emissions are downwind.

Further demonstrating the limited role that Columbia County emissions play with respect to regional air quality are the PM<sub>2.5</sub> monitors located in counties immediately to the west (Sauk County) and immediately to the east (Dodge County). Both the Sauk County (28 micrograms) and Dodge County (30 micrograms) monitors comfortably attain the 35-microgram standard. Based upon the fact that Columbia County is surrounded by compliant monitors to the east and west, and considering that the EPA pollution rose indicates 71% of exceedances in Dane County occur on days when Columbia County emissions are upwind, WMC does not believe there is a

reasonable basis to conclude that Columbia County emissions contribute to PM<sub>2.5</sub> violations in Dane County. Accordingly, we ask that EPA reconsider its draft recommendation, and not designate Columbia County as nonattainment.

If EPA is unwilling to reconsider its proposed recommendation, WMC strongly urges designation of a geographic area smaller than the entire county. As noted in the response letter to Governor Doyle, EPA has a precedent for designating only a portion of a county as nonattainment for the PM<sub>2.5</sub> standard:

*In the designation process for the 1997 PM<sub>2.5</sub> standards, in some cases EPA identified a nearby county as contributing to a violating monitor, and it was determined that a very high percentage of the county's emissions came from a large power plant. In certain cases, EPA concluded that only the portion of the county including the source with the contributing emissions needed to be designated as nonattainment. If Wisconsin believes that a similar situation exists for Columbia County, the State should provide EPA the necessary information to demonstrate that the source dominates the overall county emissions and to identify a reasonable partial county boundary.*

Emission inventory data from the Wisconsin DNR indicates that overall emissions in Columbia County are dominated by the Columbia Energy Center Power Plant located in the Town of Pacific. Specifically, 2007 emission inventory data (the most recent quality-assured data available) shows 25,425.1 tons of SO<sub>2</sub> emitted from the Columbia Energy Center, which is 99.7% of the county-wide total of 25,481.6 tons. Similarly, the 2007 emission inventory shows 5,139.3 tons of NO<sub>x</sub> emitted from Columbia Energy Center, which is 80% of the total stationary NO<sub>x</sub> emissions reported for Columbia County.

WMC wishes to reiterate in the clearest terms possible our belief that Columbia County should ***not*** be designated nonattainment for the 24-hour PM<sub>2.5</sub> standard for the reasons set forth in the preceding paragraphs. However, if EPA is unwilling to reconsider its draft position, we believe the DNR emission inventory data justifies designation of a partial county. Because the Columbia Energy Center accounts for 99.7% of the County's SO<sub>2</sub> emissions, and 80% of the County's NO<sub>x</sub> emissions, any nonattainment designation should be confined to the Town of Pacific.

#### **IV. COMPLETE DATA FOR 2008 SHOULD BE USED FOR DESIGNATION PURPOSES**

Based upon the 2007 Design Values, two of the counties with violating monitors for the 24-hour PM<sub>2.5</sub> standard are very close to attainment. Both Dane and Brown Counties have a 2007 Design Value of 37 micrograms, which is only 2 micrograms above the 35 microgram standard. It is entirely possible, given our review of current data collected thus far in 2008, that both of these counties may come into compliance based upon a 2008 Design Value.

The 2008 Design Value will include monitor data collected through December 31, 2008. Because the potential exists that data collected through that date will demonstrate attainment of the PM<sub>2.5</sub> standard in Dane and Brown Counties, WMC respectfully requests that EPA withhold issuing final designations until the 2008 data is collected. We understand that EPA intends to finalize designations by December 18, 2008, however, we do not believe EPA will have the data

necessary to do so. By waiting a few weeks until complete 2008 data is available, EPA can make a much more accurate determination for Brown and Dane Counties. The additional time could also save both the Wisconsin DNR and U.S. EPA considerable staff time associated with a potential attainment redesignation petition process undertaken within weeks of a nonattainment designation for those counties.

## V. CONCLUSION


In conclusion, WMC urges reconsideration of the proposed nonattainment designations for Racine County, Waukesha County and Columbia County with respect to the 24-hour PM<sub>2.5</sub> standard. As described above, Racine and Waukesha County have very low emissions of PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors. Designating either of these counties as nonattainment would not result in meaningful emission reductions, and would not benefit air quality in Milwaukee County. Furthermore, the data suggests that both counties play a limited role in PM<sub>2.5</sub> emissions associated with commuting.

While Columbia County has comparatively higher emissions, WMC does not believe data supports a finding of contribution with respect to Dane County PM<sub>2.5</sub> violations. The vast majority of exceedances in Dane County are measured on days when Columbia County is downwind, and monitors in other counties surrounding Columbia are comfortably below the 24-hour PM<sub>2.5</sub> compliance threshold.

For these reasons, WMC respectfully requests that EPA not designate Racine, Waukesha or Columbia County as nonattainment. We also urge the EPA to consider waiting until complete monitoring data for 2008 is available to make a determination whether Dane, Brown and Milwaukee Counties should be designated nonattainment. It would make little sense to place these counties in the position of being designated nonattainment two or three weeks prior to having more current monitoring data meeting the 24-hour PM<sub>2.5</sub> standard at the end of 2008.

Thank you for your thoughtful consideration of WMC's comments on this important matter. Please let me know if I can provide you with any additional information by calling me at (608) 258-3400, or emailing me at [smanley@wmc.org](mailto:smanley@wmc.org).

Sincerely,



**SCOTT MANLEY**  
Environmental Policy Director

c: Governor James Doyle  
Matthew Frank, DNR Secretary  
Pat Henderson, DNR Deputy Secretary  
Al Shea, DNR Air & Waste Division Administrator  
John Melby, DNR Air Bureau Director

MINORITY STATUS OF WORKERS BY COUNTY OF RESIDENCE AND COUNTY OF WORK: 2000

White alone, non-minority

County of Work	County of Residence								Residence Outside Region			
	Kenosha	Milwaukee	Ozaukee	Racine	Walworth	Washington	Waukesha	Region	Other	Illinois	Other	Total
									Wisconsin		States	
Kenosha	35,515	1,295	35	5,090	810	75	310	43,130	202	2,155	0	2,357
Milwaukee	1,890	244,640	14,525	11,970	2,230	13,945	58,245	347,445	6,392	1,350	529	8,271
Ozaukee	95	5,265	21,765	375	40	4,465	1,290	33,295	2,445	35	0	2,480
Racine	5,825	4,190	75	51,260	2,180	75	1,180	64,785	533	510	45	1,088
Walworth	575	600	65	1,570	28,240	55	1,275	32,380	4,270	1,085	0	5,355
Washington	25	2,960	1,865	165	145	31,250	2,940	39,350	6,398	30	20	6,448
Waukesha	650	45,730	2,290	3,935	3,025	9,640	113,480	178,750	10,448	480	74	11,002
Region	44,575	304,680	40,620	74,365	36,670	59,505	178,720	739,135	30,688	5,645	668	37,001
Work Outside Region												
Other Wisconsin	220	2,134	1,150	360	2,704	2,065	3,140	11,773	--	--	--	--
Illinois	18,810	1,455	120	2,165	5,340	45	700	28,635	--	--	--	--
Other States	45	425	55	10	30	0	255	820	--	--	--	--
Total	19,075	4,014	1,325	2,535	8,074	2,110	4,095	41,228	--	--	--	--

All minorities

County of Work	County of Residence								Residence Outside Region			
	Kenosha	Milwaukee	Ozaukee	Racine	Walworth	Washington	Waukesha	Region	Other	Illinois	Other	Total
									Wisconsin		States	
Kenosha	4,975	275	0	735	35	0	10	6,030	4	1,080	0	1,084
Milwaukee	370	100,525	530	940	60	390	2,790	105,605	315	454	191	960
Ozaukee	15	2,145	705	70	10	80	4	3,029	129	10	0	139
Racine	700	680	0	9,760	60	0	50	11,250	24	139	10	173
Walworth	40	255	0	90	2,305	0	45	2,735	448	154	35	637
Washington	0	1,305	65	40	4	820	55	2,289	164	0	0	164
Waukesha	80	11,560	70	220	60	340	5,980	18,310	292	104	15	411
Region	6,180	116,745	1,370	11,855	2,534	1,630	8,934	149,248	1,376	1,376	1,376	3,568
Outside Region	1,822	1,242	43	420	603	43	242	4,415				--
Work Outside Region												
Other Wisconsin	28	779	29	25	240	39	159	1,299	--	--	--	--
Illinois	1,794	352	4	360	363	4	60	2,937	--	--	--	--
Other States	0	111	10	35	0	0	23	179	--	--	--	--
Total	1,822	1,242	43	420	603	43	242	4,415	--	--	--	--

Total workers

County of Work	County of Residence								Residence Outside Region			
	Kenosha	Milwaukee	Ozaukee	Racine	Walworth	Washington	Waukesha	Region	Other	Illinois	Other	Total
									Wisconsin		States	
Kenosha	40,490	1,570	35	5,825	845	75	320	49,160	206	3,235	0	3,441
Milwaukee	2,260	345,165	15,055	12,910	2,290	14,335	61,035	453,050	6,707	1,804	720	9,231
Ozaukee	110	7,410	22,470	445	50	4,545	1,294	36,324	2,574	45	0	2,619
Racine	6,525	4,870	75	61,020	2,240	75	1,230	76,035	557	649	55	1,261
Walworth	615	855	65	1,660	30,545	55	1,320	35,115	4,718	1,239	35	5,992
Washington	25	4,265	1,930	205	149	32,070	2,995	41,639	6,562	30	20	6,612
Waukesha	730	57,290	2,360	4,155	3,085	9,980	119,460	197,060	10,740	584	89	11,413
Region	50,755	421,425	41,990	86,220	39,204	61,135	187,654	888,383	32,064	7,586	919	40,569
Work Outside Region												
Other Wisconsin	248	2,913	1,179	385	2,944	2,104	3,299	13,072	--	--	--	--
Illinois	20,604	1,807	124	2,525	5,703	49	760	31,572	--	--	--	--
Other States	45	536	65	45	30	0	278	999	--	--	--	--
Total	20,897	5,256	1,368	2,955	8,677	2,153	4,337	45,643	--	--	--	--

DOCS #130258

8/28/2007



**Waukesha County, Wisconsin**  
**Selected Economic Characteristics: 2005**  
 Data Set: 2005 American Community Survey  
 Survey: American Community Survey

NOTE. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see [Survey Methodology](#).

Selected Economic Characteristics: 2005	Estimate	Margin of Error
<b>EMPLOYMENT STATUS</b>		
<b>Population 16 years and over</b>	<b>296,256</b>	<b>+/-913</b>
In labor force	206,225	+/-2,934
Civilian labor force	205,738	+/-3,037
Employed	196,523	+/-3,478
Unemployed	9,215	+/-1,634
Armed Forces	487	+/-389
Not in labor force	90,031	+/-2,921
<b>Civilian labor force</b>	<b>205,738</b>	<b>+/-3,037</b>
Unemployed	4.5%	+/-0.8
<b>Females 16 years and over</b>	<b>150,558</b>	<b>+/-783</b>
In labor force	93,901	+/-2,413
Civilian labor force	93,901	+/-2,413
Employed	90,540	+/-2,477
<b>Own children under 6 years</b>	<b>26,145</b>	<b>+/-888</b>
All parents in family in labor force	15,760	+/-1,698
<b>Own children 6 to 17 years</b>	<b>60,075</b>	<b>+/-1,168</b>
All parents in family in labor force	41,262	+/-2,504
<b>COMMUTING TO WORK</b>		
<b>Workers 16 years and over</b>	<b>192,997</b>	<b>+/-3,614</b>
Car, truck, or van -- drove alone	168,622	+/-4,082
Car, truck, or van -- carpooled	12,478	+/-2,018
Public transportation (excluding taxicab)	1,083	+/-504
Walked	2,978	+/-840
Other means	1,875	+/-715
Worked at home	5,961	+/-1,005
Mean travel time to work (minutes)	21.7	+/-0.6
<b>Civilian employed population 16 years and over</b>	<b>196,523</b>	<b>+/-3,478</b>
<b>OCCUPATION</b>		
Management, professional, and related occupations	80,916	+/-3,825
Service occupations	24,209	+/-2,282
Sales and office occupations	53,913	+/-3,342
Farming, fishing, and forestry occupations	80	+/-96
Construction, extraction, maintenance and repair occupations	14,552	+/-1,699
Production, transportation, and material moving occupations	22,853	+/-2,012
<b>INDUSTRY</b>		
Agriculture, forestry, fishing and hunting, and mining	692	+/-277
Construction	12,651	+/-1,678
Manufacturing	36,864	+/-2,643
Wholesale trade	10,712	+/-1,808
Retail trade	22,496	+/-2,149

<b>Selected Economic Characteristics: 2005</b>	<b>Estimate</b>	<b>Margin of Error</b>
Transportation and warehousing, and utilities	5,125	+/-955
Information	3,715	+/-831
Finance and insurance, and real estate and rental and leasing	17,622	+/-2,098
Professional, scientific, and management, and administrative and waste management services	18,649	+/-1,924
Educational services, and health care, and social assistance	40,372	+/-2,914
Arts, entertainment, and recreation, and accommodation, and food services	13,414	+/-2,123
Other services, except public administration	8,136	+/-1,214
Public administration	6,075	+/-1,457
<b>CLASS OF WORKER</b>		
Private wage and salary workers	168,327	+/-4,075
Government workers	18,497	+/-1,834
Self-employed workers in own not incorporated business	9,477	+/-1,188
Unpaid family workers	222	+/-180
<b>INCOME AND BENEFITS (IN 2005 INFLATION-ADJUSTED DOLLARS)</b>		
<b>Total households</b>	<b>145,718</b>	<b>+/-1,498</b>
Less than \$10,000	5,147	+/-1,020
\$10,000 to \$14,999	4,977	+/-970
\$15,000 to \$24,999	10,276	+/-1,469
\$25,000 to \$34,999	11,026	+/-1,638
\$35,000 to \$49,999	18,895	+/-2,181
\$50,000 to \$74,999	31,884	+/-2,287
\$75,000 to \$99,999	24,521	+/-2,042
\$100,000 to \$149,999	23,910	+/-1,673
\$150,000 to \$199,999	8,126	+/-1,199
\$200,000 or more	6,956	+/-951
Median household income (dollars)	67,222	+/-2,104
Mean household income (dollars)	82,620	+/-2,518
With earnings	120,459	+/-2,070
Mean earnings (dollars)	83,109	+/-2,517
With Social Security	37,626	+/-1,615
Mean Social Security income (dollars)	16,061	+/-410
With retirement income	26,854	+/-1,755
Mean retirement income (dollars)	20,151	+/-1,882
With Supplemental Security Income	2,150	+/-683
Mean Supplemental Security Income (dollars)	6,372	+/-1,257
With cash public assistance income	828	+/-402
Mean cash public assistance income (dollars)	3,492	+/-1,694
With Food Stamp benefits in the past 12 months	2,976	+/-1,120
<b>Families</b>	<b>103,231</b>	<b>+/-2,573</b>
Less than \$10,000	1,364	+/-627
\$10,000 to \$14,999	1,043	+/-574
\$15,000 to \$24,999	3,731	+/-993
\$25,000 to \$34,999	5,875	+/-1,115
\$35,000 to \$49,999	11,442	+/-1,395
\$50,000 to \$74,999	23,957	+/-1,990
\$75,000 to \$99,999	20,483	+/-1,738
\$100,000 to \$149,999	21,855	+/-1,809
\$150,000 to \$199,999	6,885	+/-1,106
\$200,000 or more	6,596	+/-948
Median family income (dollars)	78,806	+/-2,097
Mean family income (dollars)	96,976	+/-3,234
Per capita income (dollars)	33,027	+/-1,010
<b>Nonfamily households</b>	<b>42,487</b>	<b>+/-2,411</b>
Median nonfamily income (dollars)	35,967	+/-1,658
Mean nonfamily income (dollars)	45,382	+/-3,067
Median earnings for workers (dollars)	35,609	+/-1,005
Median earnings for male full-time, year-round workers (dollars)	55,067	+/-2,604
Median earnings for female full-time, year-round workers (dollars)	40,211	+/-1,444
<b>PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL</b>		
All families	2.1%	+/-0.8
With related children under 18 years	3.4%	+/-1.4

<b>Selected Economic Characteristics: 2005</b>	<b>Estimate</b>	<b>Margin of Error</b>
With related children under 5 years only	3.7%	+/-3.2
Married couple families	0.9%	+/-0.5
With related children under 18 years	1.3%	+/-1.1
With related children under 5 years only	0.0%	+/-1.1
Families with female householder, no husband present	10.4%	+/-5.5
With related children under 18 years	11.4%	+/-6.5
With related children under 5 years only	45.5%	+/-30.5
All people	3.7%	+/-0.8
Under 18 years	4.0%	+/-1.7
Related children under 18 years	3.7%	+/-1.7
Related children under 5 years	3.3%	+/-2.9
Related children 5 to 17 years	3.8%	+/-2.0
18 years and over	3.6%	+/-0.6
18 to 64 years	3.6%	+/-0.7
65 years and over	3.6%	+/-1.0
People in families	2.1%	+/-0.8
Unrelated individuals 15 years and over	12.9%	+/-2.2

Source: U.S. Census Bureau, 2005 American Community Survey


Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see [Accuracy of the Data](#)). The effect of nonsampling error is not represented in these tables.

#### Notes:

- The number of householders does not necessarily equal the number of households because of differences in the weighting schemes for the population and occupied housing units.
- Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to [Labor Force Guidance](#).
- Workers include members of the Armed Forces and civilians who were at work last week.
- Occupation codes are 4-digit codes, but are still based on Standard Occupational Classification 2000.
- Industry codes are 4-digit codes and are based on the North American Industry Classification System 2002. However, the Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

#### Explanation of Symbols:

1. An '\*' entry in the margin of error column indicates that too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '\*\*\*' entry in the margin of error column indicates that no sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
3. An '-' entry in the estimate column indicates that no sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
4. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
5. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
6. An '\*\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
7. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
8. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
9. An '(X)' means that the estimate is not applicable or not available.

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