



JIM DOYLE
GOVERNOR
STATE OF WISCONSIN

October 20, 2008

Lynn Buell
Regional Administrator, R-19J
US Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: Designation of PM_{2.5} Nonattainment Areas in Wisconsin.

Dear Administrator Buell:

Thank you for the opportunity to comment on your August 18, 2008 letter regarding fine particulate matter (PM 2.5) nonattainment designations in Wisconsin. Specifically, your August letter alerts Wisconsin to your proposal to designate six Wisconsin counties as nonattainment for PM 2.5, and provides for Wisconsin to submit additional information we believe would be instructive to EPA as you consider making final designations.

I recognize that the fine-particle (PM 2.5) standard is a key component to protecting public health both in Wisconsin and throughout the country. Under my leadership, Wisconsin has taken this matter very seriously. Collectively, and in partnership, state government, local government, utilities, industry, and the public have taken a number of important actions to protect the health of Wisconsin citizens from this pollutant. It is for this reason that I again reiterate my request of December 18, 2007: No Wisconsin counties should be designated as nonattainment for PM 2.5.

Counties Identified as Not Meeting the Standard: Your August 2008 correspondence relied on monitored data collected from 2005, 2006 and 2007 to recommend designation of Brown, Dane, and Milwaukee counties. I request you revisit your assumptions in this regard.

Updated Monitoring Data – Updated monitoring data from 2006, 2007 and 2008 to date, show that Dane and Brown counties are not violating the PM_{2.5} standard. Coupled with the fact that Wisconsin will achieve significant reductions as a result of the recently enacted state Multi-Pollutant reduction rule (described below) these two counties will certainly continue to achieve the PM 2.5 air quality standard.

Not only is Dane County currently monitoring attainment, it has, in partnership with the State, City of Madison, local businesses, utilities, and citizens has also taken numerous actions to reduce emissions on a voluntary basis. Most notable of these

actions are the conversion from coal to natural gas by Madison Gas and Electric's Blunt Street plant by 2011, and the conversion, at my direction, of the University of Wisconsin's Charter Street plant from coal to natural gas/biofuels by 2015. A more detailed listing of these and other actions is included as an attachment to this letter.

Counties Considered as Contributing: Your August 2008 correspondence relied on a series of assumptions that concluded Columbia, Racine and Waukesha counties contribute to the nonattainment violations in Dane and Milwaukee counties, and therefore should be considered as nonattainment. I request that you reconsider designation of these three counties for the following reasons:

Columbia County – Columbia County is nonindustrial and the most significant stationary source, the Columbia Generating Station, is affected by the stringent regulatory requirements contained in the state's Mercury multi-pollutant rule. In addition, weather and transport patterns do not support Columbia County as contributor of ambient air quality to Dane County. On this basis, Columbia County should not receive a nonattainment designation.

Racine County – Emissions data indicate that Racine County is a minimal source of PM 2.5 precursor emissions. The state also believes the commuter impact on Milwaukee County highlighted by EPA is not supported by census or local estimates generated by the Southeast Wisconsin Regional Planning Commission. As a result, we do not believe that additional emission reductions from Racine County would have a significant affect on PM 2.5 air quality in any nearby county and therefore should not be designated nonattainment.

Waukesha County - Waukesha County's PM 2.5 monitor from 2005 to date, does not show a violation of the standard. Placing this county in non-attainment when they are not actually violating the standards only serves to increase costs to businesses and utility ratepayers in those counties without significant public health benefits.

Milwaukee County: Monitored data from 2005-2008 to date indicates that Milwaukee county meets the annual PM 2.5 standard. While it is true that the same data indicates that Milwaukee County has a minor exceedance of the 24-hour PM 2.5 standard, the State believes that the County will benefit significantly from the reductions that will occur as a result of a series of significant air pollution rules recently promulgated in Wisconsin.

Additionally, modeling predictions developed by Lake Michigan Air Directors Consortium (LADCO), show that beginning in 2009, only one monitor of the four in Milwaukee County will be measuring slightly above the standard.

Recent State Air Pollution Control Rules: Since 2007, the state has promulgated four significant rules. These are:

- Clean Air Interstate Rule
- NOx Reasonable Available Retrofit Technology Rule
- Best Available Retrofit Technology Rule
- Mercury Multipollutant Rule

Most notable of these is the Mercury Multipollutant rule which will result in statewide SO₂ and NO_x emissions rates in Wisconsin comparable to the lowest rates found nationally on any power plant. Collectively, when fully implemented in 2015, these four rules will reduce SO₂ and NO_x emissions in the state by 82% and 62% respectively below 2005 levels. These emission standards and the levels of emission reductions are the lowest in the eastern portion of the United States, and at a recent LADCO meeting were held up as the level that other eastern states should be striving toward.

Additionally, please note that these above critical rules build on Wisconsin's existing regulations and control programs for sulfur dioxide and nitrous oxide emissions from industry and utilities, as well as, the state's mobile source emission control programs for reformulated gasoline and vehicle inspection maintenance.

Summary: Wisconsin is leading the way in air pollution control. We are going to achieve the standard without disadvantaging Wisconsin utilities, industries and ratepayers with a process which will not result in any further or faster public health benefits. As EPA begins to re-promulgate the CAIR rule I would offer Wisconsin's approach and standards in the multipollutant rule as the model for the nation which will bring all states that contribute to interstate transport of air pollution to level par.

Thank you for the opportunity to submit additional information related to fine particulate nonattainment in Wisconsin. Please contact DNR Secretary Matt Frank or Al Shea, Administrator of the Air and Waste Management Division in the Wisconsin DNR, if you have any questions related to my recommendation.

Sincerely,



Jim Doyle
Governor

cc: Senator Mark Miller, Chair, Senate Environment & Natural Resource Committee
Representative Scott Gunderson, Chair, Assembly Natural Resource Committee
Matt Frank, Secretary, Department of Natural Resources
Al Shea, Administrator, Air & Waste Division, DNR
John Melby, Director, Bureau of Air Management, DNR
Kathleen Falk, Executive, Dane County
Dan Vrakas, Executive, Waukesha County
Debra L.H. Wopat, Chair, Columbia County Board
William L. McReynolds, Executive, Racine County
Scott Walker, Executive, Milwaukee County
Guy Zima, Chair, Brown County Board
Tom Barrett, Mayor, City of Milwaukee Mayor
Mayor Dave Cieslewicz, City of Madison Mayor
Mayor James J. Schmitt, City of Green Bay

ANNEX 1 – PM 2.5 AMBIENT AIR QUALITY MONITORING FOR BROWN, DANE, MILWAUKEE AND WAUKESHA COUNTIES (2006 – 2008)

In Wisconsin, the 24-hour PM 2.5 standard is the air quality standard of concern. The annual PM 2.5 standard is being achieved throughout the state.

Brown, Dane and Waukesha Counties

With four months of monitoring data yet to be considered, the 24-hour PM 2.5 design value for Brown County and Dane County, based on ambient monitoring from January 2006 through August 2008, indicate that the standard is being attained in both counties. At this point in time the design value determined for Dane County is 34.9 ug/m³ and the design value for Brown County is 34.7 ug/m³ indicating that the 24-hour air quality standard of 35 ug/m³ is being achieved in both counties.

The 24-hour PM 2.5 design value for Waukesha County is 33.7 ug/m³ indicating that the 24-hour air quality standard of 35 ug/m³ is being achieved in Waukesha County. Monitoring data for the period September through December 2008 is still to be collected and considered.

Milwaukee County

With four months of monitoring data yet to be considered, the 24-hour PM 2.5 design value at four air quality monitoring sites in Milwaukee indicate that the 24-hour air quality standard of 35 ug/m³ is not being achieved. Data from September through December 2008 is still to be collected and considered. The calculated values for the four monitoring sites in Milwaukee County are:

- Milwaukee - Health Center (550790010): 36.2 ug/m³
- Milwaukee - DNR SER HQ (550790026): 36.6 ug/m³
- Milwaukee - Virginia St FS (550790043): 36.2 ug/m³
- Milwaukee - Wells St. FS (550790099): 35.6 ug/m³

ANNEX 2 – CONTRIBUTING COUNTIES

Columbia and Racine Counties have been identified as contributors to ambient air quality in a nearby area that does not meet the 24-hour PM 2.5 air quality standard.

Dane County, the county of significance for Columbia County, is in attainment with this standard based on air quality monitoring and the modeling demonstration performed by LADCO cited in ANNEX 3. Columbia County is nonindustrial and the most significant stationary source, the Columbia Generating Station, is affected by the stringent regulatory requirements outlined in ANNEX 5. In addition, weather and transport patterns do not support Columbia County as contributor of ambient air quality to Dane County. On this basis, Columbia County should not receive a nonattainment designation.

Emissions data indicate that Racine County is a minimal source of PM 2.5 precursor emissions. It is not believed that additional emission reductions from Racine County would have a significant affect on PM 2.5 air quality in any nearby county and therefore should not be designated nonattainment.

ANNEX 3 – FUTURE 24 HOUR PM_{2.5} EMISSION MODELING RESULTS

The Lake Michigan Air Directors Consortium (LADCO) performed modeling of future air quality in Wisconsin and the nearby states for 2009, 2012 and 2018. This modeling is based on emission inventory information and “on the book” regulations as of April 2008. The basis and results of this modeling are presented in the document "Regional Air Quality Analysis for Ozone, PM_{2.5}, and Haze: Final Technical Support Document" which is available at www.ladco.org/References/TSD_Version_IV_April_25_2008_FINAL.pdf.

The air quality modeling used emission inputs developed for the appropriate source sectors and includes state and federal emission control programs and other emission reductions known to occur. For example the retirement of two coal-fired electric generating units at the Pulliam Generating Station in Green Bay. For the electric utility sector, emissions are based on EPA's IPM 3.0 modeled emissions output with the implementation of the Clean Air Interstate Rule. The modeled emissions also include reductions reflecting the WE Energies Consent Decree, the Wisconsin NO_x RACT rule, and unit-by-unit BART requirements. The results of the air quality modeling, including these reductions, show that no monitoring sites in Wisconsin violate the annual PM_{2.5} air quality standard in 2009 and thereafter.

For the 24-hour PM_{2.5} air quality standard, the modeled results show that monitoring sites in Brown, Dane, and Waukesha counties in 2009 and thereafter do not violate the 24-hour air quality standard of 35 ug/m³. In Milwaukee County, only one of four existing monitors is modeled to minimally exceed the standard at a concentration of 36 ug/m³. For detailed results for the monitoring sites and the associated modeled 24-hour PM_{2.5} concentration refer to Appendix I of the LADCO technical support document.

As previously stated, one monitoring site in Milwaukee County is modeled to exceed the 24-hour PM_{2.5} standard by only 1 ug/mg. This modeled concentration does not account for the benefit of additional reductions of NO_x and SO₂ emissions expected to occur in the state.

These additional emission reductions may occur through the actions outlined in ANNEX 4 and ANNEX 5 and may lead to some additional air quality benefit in Milwaukee County. ANNEX 4 identifies emission reductions obtained through voluntary control programs in specific counties of concern. The emission reductions due to voluntary control actions, beyond those already accounted for in the air quality modeling is 914 tons per year of NO_x and 2,153 tons per year of SO₂. ANNEX 5 identifies emission reductions from the multipollutant compliance option which is part of Wisconsin's revised mercury rule. An additional annual reduction of 8,082 tons of NO_x and 9,650 tons of SO₂ reductions are achievable under this compliance option by 2015.

ANNEX 4 – EMISSION REDUCTIONS FROM VOLUNTARY PROGRAMS AND ACTIONS

Public and private sector partners in the area of concern have undertaken numerous voluntary emission reduction initiatives to protect human health and air quality. The Partners for Clean Air (Milwaukee County) and Clean Air Coalition (Dane County) have been particularly aggressive in seeking voluntary reductions. All of these efforts have focused on reducing emissions contributing to particulate matter (PM) and ozone formation. In total, these voluntary projects will reduce NO_x by 1015 tons per year and SO₂ by 4,896 tons per year.

These actions have or will reduce emissions from local stationary, on-road, non-road and area sources. Funding for these projects include local public and private sources, SEP agreements,

and state and federal grants. These clean air partnerships intend to vigorously pursue future funding opportunities (e.g., DERA, CMAQ and state).

The attached links provide information on partners voluntarily reducing emissions

- state (e.g., Green Tier) http://dnr.wi.gov/air/vol/finalvi_inventory.htm
- federal (e.g., Smartway) <http://www.epa.gov/smartway/transport/partner-list/index.htm>

Stationary Sources

The State of Wisconsin and the local utility, Madison Gas and Electric, in Dane County will be eliminating coal burning at the two largest sources in Dane County. The MGE Blount facility will stop burning coal by 2011 and the State of Wisconsin Charter facility by 2014. The emission reductions for the actions planned for the Blount facility are included in the emission inputs for the air quality modeling presented in ANNEX 3. The estimated annual emission reductions achieved by these two projects is shown in the table below.

	NO _x	SO ₂
MGE Blount	101	2,743
Charter	368	2,153

On and Off Road Sources

The regional partnerships have undertaken numerous retrofit, idle reduction, Smartway and fuel switching programs. Over 1000 school buses and more than 1,300 other on- and off-road vehicles have been or will shortly be retrofitted with DOC muffler, APU idle reduction devices or burn biofuels or ultra low sulfur diesel (in off-road equipment specifically). Dane County is also considering adoption of an idling reduction ordinance. A conservative estimate of the collective annual emission reductions achieved to date is shown in the table below.

VOC (TPY)	NO _x (TPY)	PM (TPY)
109	546	20

Area Sources

The Dane County Clean Air Coalition used an EPA Innovation Grant in collaboration with private sector partners to retrofit vent pipes on 85% of the installed UST capacity in the county. The estimated VOC emission reductions are conservatively estimated at 50-65 tons per year.

ANNEX 5 - EMISSION REDUCTIONS FROM COAL-FIRED ELECTRIC GENERATING UNITS

Coal-fired electric generating units (EGUs) are affected by the following regulatory requirements that achieve significant mercury, nitrogen oxides (NO_x) and sulfur dioxide (SO₂) emission reductions. The impact of the NO_x and SO₂ emission reductions from BART, CAIR, NO_x RACT and the WE Energies consent decree are reflected in the modeling presented in ANNEX 3. These modeling results do not reflect the significant additional NO_x and SO₂ emission reductions that are possible under the mercury multipollutant compliance pathway that is included in the state's recently revised mercury rule that will be promulgated December 1, 2008.

Clean Air Interstate Rule (CAIR)

CAIR is intended to permanently cap emissions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x) in 28 eastern states and the District of Columbia. If fully implemented, CAIR will reduce SO₂ emissions in these states by over 70% and NO_x emissions by over 60% from 2003 levels. In July 2007, Wisconsin promulgated regulations establishing a NO_x allocation structure for the CAIR NO_x annual and ozone season allowance programs. The allocation structure is the same for the two allowance programs. The CAIR SO₂ program will be fully administered by the EPA so state regulatory requirements were not developed. The federal rule caps emissions from EGUs in two phases (2009 and 2015) and allows EGUs to meet their respective emissions caps through installation of controls or by trading emission allowances through a federally administered trading program.

Regardless of the outcome of the ongoing CAIR legal dispute, Wisconsin believes federal laws or regulations addressing interstate transport of fine particles and ozone will be established which will require emission reductions greater than CAIR.

Best Available Retrofit Technology (BART)

The BART requirements for Wisconsin became effective June 2008. Federal regulations require all states, including Wisconsin, to develop plans to address visibility impairment in select Class I federal areas. One provision of this regulation is the application of Best Available Retrofit Technology (BART) requirements for major stationary sources. Emission reductions are determined for each individual source based on a site-specific engineering analysis. The regional haze regulation allows states to implement alternative programs in lieu of BART, if the alternative program achieves greater reasonable progress than BART does. EPA has determined that the Clean Air Interstate Rule (CAIR) achieves greater progress than BART and may be used by states as a BART substitute. Therefore, in Wisconsin, the CAIR is a BART substitute for the eligible power plants. Since CAIR limits only SO₂ and NO_x emissions, the power plants subject to BART must still undergo a BART determination for particulate matter (PM) emission control.

NO_x RACT

The Clean Air Act requires the implementation of reasonably available control technology (RACT) on major sources of NO_x emissions in the moderate non-attainment counties by 2009. The Clean Air Act requires states to adopt and implement a control program of reasonably available control technology (RACT) for major NO_x stationary sources in the moderate ozone nonattainment area. The RACT requirements are NO_x emission limitations on major stationary sources which are located in the moderate ozone non-attainment areas, i.e., the 7 counties in southeastern Wisconsin. The Department adopted a rule to require a RACT level of control on the affected sources that became effective in July 2007. It can be expected that a source subject to both RACT and BART would consider a NO_x control measure that is effective enough to comply with both requirements.

Mercury Multipollutant Compliance Pathway

Wisconsin revised its mercury rule and established more stringent mercury reduction requirements for coal-fired electric generating units. The revised rule has cleared legislative review and will be promulgated on December 1, 2008.

A multipollutant alternative for large electric generating units, 150 MW and larger, requires NO_x and SO₂ reductions beyond those currently required by federal and state regulations, as well as attaining a delayed 90% mercury emission reduction standard. Owners and operators must designate which large units will follow the multipollutant option by December 31, 2010. Large units that are not designated for the multipollutant option will, by default, be required to achieve a 90% mercury reduction by 2015. Under the multipollutant option, affected EGUs must achieve a NO_x emission standard of 0.07 pounds of NO_x per million BTU and a SO₂ emission standard of 0.10 pounds of SO₂ per million BTU by January 1, 2015.

An interim mercury reduction requirement is established that targets January 1, 2015 to achieve a 70% mercury reduction or limiting the concentration of mercury emissions to 0.0190 pounds of mercury per gigawatt-hour. Beginning January 1, 2018 an 80% mercury reduction or limiting the concentration of mercury emissions to 0.0130 pounds of mercury per gigawatt-hour must be achieved. By January 1, 2021 a 90% mercury reduction or limiting the concentration of mercury emissions to 0.0080 pounds of mercury per gigawatt-hour is required.

Emissions Summary

The following table presents the emission levels that will be accomplished through the application of BART, CAIR, RACT and WE Energies consent decree as well as the additional reductions in NO_x and SO₂ possible under the mercury multipollutant pathway. The multipollutant pathway could achieve an additional 8,082 tons of NO_x reductions and 9,650 tons of SO₂ reductions, annually.

Pollutant	2005 Emissions	2014 Emissions – BART, CAIR, RACT, WE Energies Consent Decree	2015 Emissions – Multipollutant Mercury Pathway
Nitrogen Oxides	39,599	23,048	14,966
Reduction from 2005		42%	62%
Sulfur Dioxide	118,153	31,072	21,422
Reduction from 2005		74%	82%

The Dane County Clean Air Coalition (DCCAC) is a private/public partnership of businesses, schools, government agencies and citizens working together to voluntarily reduce air pollution, keep our air healthy and help ensure that Dane County continues to meet federal air quality standards. Dane County Clean Air Coalition members include: Dane County, City of Madison, Greater Madison Chamber of Commerce, Kraft Foods, Madison Gas & Electric Company, Madison Metropolitan School District, Wisconsin Petroleum Marketers and Convenience Stores Association, University of Wisconsin-Madison, WI Department of Administration, WI Department of Health Services and WI DNR.

Since 2004, DCCAC has successfully implemented a number of programs reducing fine particle and ground-level ozone pollution including:

- *The Wisconsin Healthy Air Initiative: Working with Businesses and Their Employees* -- The Healthy Air Initiative provides practical engineering help for manufacturers to reduce emissions from operations and assists employers organize commute option programs for their employees. In cooperation with the UW School of Medicine and Public Health, the WI Partnership Fund for a Healthy Future granted DCCAC \$450,000 to undertake the 3-year project.
- *Dane County Clean Air Action Days* -- A *Clean Air Action Day* is called when the DNR notifies the DCCAC that an Air Quality Watch has been called because weather conditions may produce unhealthy levels of ozone or fine particle pollution on the following day. DCCAC member organizations activate their *Clean Air Action Day* response plans to help protect air quality. Actions taken by DCCAC members include: Madison Metro Transit provides free bus service, MGE discontinues coal-burning at the Blount Street power plant and all organization employees are notified via e-mail.
- *Clean School Bus Initiative* -- The Madison and Middleton-Cross Plains Metropolitan School District, in partnership with 5 private bus companies and 14 additional school districts in southern Wisconsin (5 in Dane County), installed diesel oxidation catalysts on over 300 school buses reducing fine particle emissions by 20%. The program was funded by EPA Clean School Bus USA grants of \$340,000.
- *Non-Road Clean Diesel Demonstration Project* -- In partnership with the DNR that received a \$100,000 grant from EPA's Clean Diesel Campaign, Dane County and City of Madison installed diesel oxidation catalysts on non-road construction equipment such as bulldozers, end loaders and graders reducing fine particle pollution by 20%.
- *Biodiesel School Bus Fuel Incentive Purchase Program* -- \$50,000 in funding from Dane County will pay rebates to local school districts and private bus companies purchasing biodiesel fuel.

- *Clean Diesel Garbage Truck Project* -- EPA has awarded a \$50,000 grant to the DNR to be used to retrofit at least 25 garbage trucks in Dane County that will reduce diesel emissions and fine particle pollution. Green Valley Disposal Company, City of Madison and UW-Madison will receive grant funds from the DNR to purchase and install pollution control technology on their garbage trucks.
- *Green Gas Station Initiative* – DCCAC received the only nationally awarded Air Innovation grant from EPA in 2006. The \$50,000 grant demonstrated how gas stations could reduce air emissions with the installation vapor recovery systems and pressure vent valves.
- *Gas Can Exchange Program* – UW-Madison provided \$20,000 for the purchase of 3,600 CARB-approved gas cans from Briggs & Stratton Company enabling local residents to exchange their old gas can for environmentally-friendly cans reducing VOC emissions by up to 75%.