

Dr. Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101-2147

Re: In the Matter of Disclosure of Environmental Information to Utility Customers  
MPUC Docket No.: E,G-999/CI-00-1343; Updated Emission Averages

Dear Mr. Haar:

The Minnesota Pollution Control Agency (MPCA) is providing the Commission and the Department of Commerce with **updated** regional average emission rates for utilities to use in their preparation of environmental disclosures, as required by the Commission in its Order Clarifying Disclosure Requirements and Setting Procedural Schedule issued September 3, 2002. The regional average emission rates were updated last in a letter to the Commission dated October 30, 2008. The MPCA provides this information for the record; the Commission does not need to act upon it.

As described previously, the MPCA provides the Commission and the Department of Commerce with updated values of the regional average emission rates and coal-fired power plant contribution each time the Emissions & Generation Resource Integrate Database (eGRID) database is revised. The U.S. Environmental Protection Agency (EPA) released its latest edition of eGRID (eGRID2007 Version 1.1) in January 2009.

The only changes from Version 1.0 are in the carbon dioxide emission rate.

This update includes complete data for year 2005, and is organized to represent operator, parent company, owner, and electric grid configurations as of December 31, 2007. Electronic copies of this database are available at [www.epa.gov/cleanenergy/energy-resources/egrid/index.html](http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html).

The MPCA is not providing updated values of the contribution of coal-fired power plant emissions to overall state emissions at this time.

Item 2 of the Order requires the utility to use data based on the Mid-Continent Area Power Pool (MAPP) system average emissions as reported by the MPCA. Since the Order was issued, the role of MAPP has changed and eGRID no longer reports emissions for MAPP. Instead, emissions are now reported to reflect changes in the power regions. Minnesota is part of the Midwest Reliability Organization (MRO) region of the North American Electric Reliability Council (NERC).

MRO has similar geographic coverage to the former MAPP region and includes the states of Minnesota, North Dakota, South Dakota, Iowa, Nebraska, most of Wisconsin, a small portion of Michigan's upper peninsula, and far eastern Montana. Thus, the MPCA will use the MRO regional average, provided by eGRID, as the data source for all pollutants except PM<sub>10</sub>.

The utilities use the MRO regional average emission rate in their bar graph comparing their utility system emission rate to the regional average emission rate for each of the five pollutants. The new and old regional average values are shown below.

**Regional Average Emission Rates (lbs per MWh)**

(Year data based on)	Sulfur Dioxide	Nitrogen Oxides	Carbon Dioxide	Mercury	Particulate Matter –PM <sub>10</sub>
Previous (1998)	7.094	4.865	1949	0.00004016	0.4099
Previous (2000)	5.537	3.982	1839	0.00004319	0.3257
Previous (2004)*	6.107	3.734	1820	0.0000415	0.3371
Previous (2005)*	5.8652	3.5753	1,810.82	0.0000391	0.3371
<b>New (2005)*</b>	5.8652	3.5753	1,823.69	0.0000391	0.3371

**\*The 2004 and 2005 emission rates reflect the MRO region, rather than the MAPP region used for 1998 and 2000 values.**

Because PM<sub>10</sub> data is not included in the eGRID database, the MPCA uses another method to develop the regional average<sup>1</sup>. The attached table contains the data used to calculate the regional averages. This emission rate has not been updated.

The MPCA appreciates the opportunity to assist the Commission, Department of Commerce and utilities in providing environmental information to utility customers. If you have questions, please contact me at 651-757-2277.

Sincerely,

Anne Claflin  
Pollution Control Specialist  
Air Assessment and Environmental Data Management Section  
Environmental Analysis and Outcomes Division

AC:jab

Enclosure

cc: See attached page

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<sup>1</sup> To calculate the PM<sub>10</sub> regional average, the MPCA used PM<sub>10</sub> emissions data for five states as reported in EPA's National Emission Trends database for the 4911 SIC code (electric services). Data for 2002 was available, and was not changed from previous emission rates with this update.. The MPCA included the five states most representative of the MRO region; Minnesota and the four adjacent states: North Dakota, South Dakota, Iowa, and Wisconsin. The MPCA used U.S. Department of Energy's Energy Information Administration database for the 2002 net generation values as reported in Electric Power Monthly.

cc: Burl W. Haar, Exec Sec, MN Public Utilities Commission  
Bruce Gerhardson, Otter Tail Power Company  
David Thornton, MPCA  
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## Information in Support of Environmental Disclosure Brochure – Revised October 2008

### Regional Average Emission Rate

Region	Annual SO <sub>2</sub> (tons)	Annual NO <sub>x</sub> (tons)	Annual CO <sub>2</sub> (tons)	Annual Mercury (pounds)	Net Generation (MWhr)	Lb SO <sub>2</sub> / MWhr	Lb NO <sub>x</sub> / MWhr	Lb CO <sub>2</sub> / MWhr	Lb Mercury / MWhr
MRO	612,927.42	373,628.20	190,579,990.2	8,167.91	209,004,904.2	5.8652	3.5753	1810.82	0.0000391

The above information is from eGRID2007 Version 1.1 (access at <http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html>). It is based on 2005 record data (the most current complete year). The Emissions & Generation Resource Integrated Database (eGRID) is maintained by the United States Environmental Protection Agency and the Energy Information Administration, Department of Energy.

### Particulate Matter Less than 10 Microns in Diameter – Regional Average Emission Rate

State	Annual PM <sub>10</sub> (tons)	Net Generation (thousand MWhr)	lb PM <sub>10</sub> / MWhr
Iowa	9,916	40,969,004	0.4841
Minnesota	7,698	49,774,496	0.3093
North Dakota	7,625	31,147,221	0.4896
South Dakota	451	7,721,958	0.1168
Wisconsin	5,448	55,125,153	0.1977
Totals	31,139	184,737,832	0.3371

The above information was supplied by the United States Environmental Protection Agency from its 2002 National Emission Trends database on Sept. 25, 2007. It includes facilities in the 4911 SIC code (electric services). Values will continue to be updated by EPA as it receives corrections from states. The MPCA used U.S. Department of Energy's Energy Information Administration database for the 2002 net generation values for electric utilities plus independent power producers as reported in Electric Power Monthly. ([www.eia.doe.gov/cneaf/electricity/epa/generation\\_state.xls](http://www.eia.doe.gov/cneaf/electricity/epa/generation_state.xls) )