

US EPA ARCHIVE DOCUMENT



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

D. Aburano



STEVEN E. CHESTER
DIRECTOR

August 20, 2004

Mr. Bharat Mathur, Acting Regional Administrator
U.S. Environmental Protection Agency
Region V
77 West Jackson Boulevard (R-19J)
Chicago, Illinois 60604-3507

Dear Mr. Mathur:

The Michigan Department of Environmental Quality (MDEQ) is submitting additional modeling analyses to support our July 15, 2004, request for 8-hour ozone nonattainment reclassification of Muskegon and Cass counties, from moderate to marginal.

The Technical Support Document originally submitted with our reclassification request included photochemical modeling and air quality data analysis. Source apportionment modeling showed that emissions of air pollutants in Muskegon County contribute less than 1 percent of the ozone measured. Additional modeling performed by the Lake Michigan Air Directors Consortium was summarized and shows that the counties are on track to achieve attainment of the 8-hour standard with implementation of the Lake Michigan regional attainment plan by 2007. The attached modeling analysis supplement describes a revised relative attainment test for Muskegon County using model-generated data with the current design value that was used to designate and classify the area, applied to emissions calculated for 1999. This attainment test using the U.S. Environmental Protection Agency's Relative Reduction Factor strategy shows that Muskegon and Cass counties should attain the ozone standard by 2007, the attainment deadline for areas classified as marginal.

Thank you for considering this supplemental information as you make a decision on the reclassification of the counties of Muskegon and Cass. Please contact me if you need any further information.

Sincerely,

G. Vinson Hellwig, Chief
Air Quality Division
517-373-7069

Attachment

cc/att: Mr. Dan Beattie, Governor's Washington Office
Mr. Steven E. Chester, Director, MDEQ
Mr. Jim Sygo, Deputy Director, MDEQ

**Supplement to the Reclassification Technical Support Document
for Cass and Muskegon Counties
August 20, 2004**

Modeling performed to support the 1-hour ozone attainment demonstration for the Lake Michigan area by the Lake Michigan Air Directors Consortium was analyzed for the purpose of preliminary assessment of attainment for the 8-hour ozone standard in 2007. This analysis was summarized in the Technical Support Document submitted with Michigan's request for reclassification of Cass and Muskegon Counties on July 15, 2004.

In accordance with U.S. Environmental Protection Agency guidance, a relative attainment test using site-specific monitored design values in concert with future year modeled values was performed. Future year ozone design values were estimated by the application of Relative Reduction Factors (RRFs), calculated as the ratio of the model-predicted future year daily maximum 8-hour concentrations (averaged over several modeling days) to the model predicted base year daily maximum 8-hour concentration (averaged over the same modeling days). Base year observed design values at each monitor were multiplied by the corresponding RRF to derive future year design values to be compared to the ambient standard.

The Michigan Department of Environmental Quality is revising the relative attainment test calculation presented in the TSD to use the current design value of 95 parts per billion (ppb) for Muskegon County based on monitoring data for 2001-2003 instead of the design value of 97 ppb derived from averaged design values from the mid-1990s. This relative attainment test used an emissions inventory for 1999. The 1995 monitored ozone values in the region were very high, and this affected the design values for 1994-1996 and 1995-1997. It is reasonable to apply the Muskegon RRF (.886) to the current design value of 95 ppb designate and classify Muskegon County. The 2003 base year design value of 95 ppb, multiplied by the RRF, yields a 2007 design value of 84 ppb and passes the relative attainment test.

<u>Site</u>	<u>Observed Design Value</u>	<u>Design Value 2007 Regional Strategy</u>
Cass County	93	81
Muskegon County	95	84