July 25, 2011

Cheryl Newton  
Director, Air and Radiation Division  
U.S. Environmental Protection Agency, Region 5  
77 W. Jackson Boulevard  
Chicago, IL 60604

Dear Ms. Newton:

The purpose of this letter is to transmit our modeling protocol for sulfur dioxide (SO2). This document identifies the procedures that we intend to follow (and will recommend that others follow) in conducting modeling to develop attainment plans for SO2 for our states.

In the preamble to the final rule for the SO2 standard, EPA stated that it will provide additional guidance regarding the application of refined dispersion modeling for implementation of the 1-hour SO2 standard. EPA further indicated that this guidance will follow Appendix W (Guideline on Air Quality Models) “with appropriate flexibility for use in implementation”. Consistent with these statements, this protocol document was prepared following the general procedures in Appendix W with some accommodations for the actual air quality situations in the region (e.g., more than 99% of the SO2 emissions come from sources with annual emissions of 80 TPY or more, and current monitored violations are limited to counties with major point sources, such as power plants, or urban industrial areas).

As you know, EPA has yet to issue its additional modeling guidance. Given the short timeframe that states are now faced with for submitting attainment plans (i.e., June 2013 for attainment/unclassifiable areas, and February 2014 for nonattainment areas), we found it necessary to establish modeling procedures which we believe will address actual air quality problems for SO2 in the region. Many states face SIP deadlines that require this guidance to be finalized so that they can get modeling completed soon.

We look forward to working cooperatively and constructively with you and your staff on these analyses. One issue in particular that we will need help from EPA is in defining the allowable emission level to be used in the modeling. In the preamble to the final rule for the standard, EPA stated that the SO2 SIPs “would be able to rely on modeling reflecting any SO2 reductions that we expect to result before the attainment date from compliance with rules EPA expects to promulgate before 2013 (including technology-based standards under CAA section 112(d) for certain source categories emitting large amounts of SO2 such as Electric Generating Units and industrial boilers, and revised rules establishing further limits on SO2 emitted by source in upwind States which contribute significantly to downstream States’ inability to attain or maintain the PM2.5 NAAQS (the so-called Clean Air Interstate Replacement rule)).” We will need your help to determine the appropriate emission reduction credits and modeled allowable emission levels for these sources.
Please direct any questions concerning the enclosure to Michael Koerber, LADCO. Please contact any of us, if you wish to discuss the modeling issues further.

Sincerely,

Laurel Kroack,  
Chief, Bureau of Air  
Illinois Environmental Protection Agency

Keith Baugues  
Assistant Commissioner, Office of Air Quality  
Indiana Department of Environmental Management

G. Vinson Hellwig  
Chief, Air Quality Division  
Michigan Department of Environmental Quality

J. David Thornton  
Assistant Commissioner  
Minnesota Pollution Control Agency

Robert Hodanbosi  
Director, Division of Air Pollution Control  
Ohio Environmental Protection Agency

William Baumann  
Acting Director, Bureau of Air Management  
Wisconsin Department of Natural Resources

ENCLOSURE