



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

**MAY 06 2011**

David Phelps, Supervisor, Construction Permit Section  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Urbandale, Iowa 50322

RE: MidAmerican Energy Company George Neal South power plant Prevention of Significant Deterioration permitting comments

Dear Mr. Phelps:

On April 4, 2011, the United States Environmental Protection Agency (EPA) Region 7 received notification of the Iowa Department of Natural Resources' (IDNR) intent to issue a Prevention of Significant Deterioration (PSD) construction permit for the MidAmerican Energy Company George Neal South power plant to install emission control technologies on the existing coal-fired boiler Unit 4 at the George Neal South plant located in Woodbury County, Salix, Iowa. We have completed our review of the draft permit and have the following comments.

Comment 1.

Section 6 on page 3 of the draft permit appears to exempt startup and shutdown periods. BACT limits should apply during startup and shutdown. The permit may specify secondary limitations for periods of startup and shutdown provided such limitations are supported by a justification showing that the limitations applicable during these operating conditions meet the BACT criteria in applicable regulations and do not authorize the source to cause or contribute to a violation of the NAAQS or increments.

Comment 2.

Section 12 on pages 7 and 8 of the draft permit should be more specific in the test requirements. For example, it should specify a N<sub>2</sub>O test method and add details to the other pollutant test methods such as minimum sample times and volumes.

For the N<sub>2</sub>O test method, Part 98 allows two test methods for testing nitric acid plants that should work for a coal-fired power plant: Method 320 of 40 CFR Part 63, appendix A or ASTM D6348-03.



Comment 3.

On Page 19 of the fact sheet is a table summarizing the PM10, PM2.5 and CO air quality impacts from the project. The reported values for annual concentrations of PM2.5 and PM10 are zero, which seems unlikely.

Under EPA's March 23, 2010, "Modeling Procedures for Demonstration of Compliance with PM2.5 NAAQS" guidance, EPA recommends that states conduct an analysis for annual PM10 -- even though the NAAQS was revoked -- only when attempting to show PM10 serves as an adequate surrogate for PM2.5. Since IDNR did a direct PM2.5 air quality analysis, we agree that no annual PM10 analysis was necessary. If the "zero" value in the table is intended to reflect this result, then the results in the "maximum predicted concentration" column are probably better described as "PM10 standard revoked, direct PM2.5 analysis performed" or something similar to clearly communicate that zero means no analysis was completed.

For the annual PM2.5 results, it isn't clear if 0.0 means the analysis wasn't performed or came from rounding results in modeled concentrations. Since the permit application indicates that an analysis was performed that resulted in a value of  $-0.04 \text{ ug/m}^3$ , we recommend that the model results be shown in the permit before rounding so that it is clear the analysis was performed.

We appreciate the opportunity to provide what we hope you will find to be constructive comments. Please contact Bob Webber at (913) 551-7251 if you have any questions or comments regarding this letter.

Sincerely,



Mark A. Smith, Chief  
Air Permitting and Compliance Branch  
Air and Waste Management Division