



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 N. 5th STREET
KANSAS CITY, KANSAS 66101

AIR PERMITTING AND
COMPLIANCE BRANCH

June 16, 2006

W. Clark Smith
Permitting Section Supervisor
Air Quality Division
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, Nebraska 68509-8922

RE: Nebraska Public Power District, Gerald Gentleman Station
Draft PSD construction permit comments

Dear Mr. Smith:

On May 18, 2006, EPA Region 7 received hardcopy notification of NDEQ's intent to approve the Prevention of Significant Deterioration (PSD) construction permit for the Nebraska Public Power District, Gerald Gentleman Station (NPPD) located in Sutherland, Nebraska. The project includes the replacement of the pulverized coal-fired boiler Unit 1's existing burner equipment system with new low NO_x burner equipment which includes an overfire air port system. The EPA Region 7 has completed its review of the draft permit, and we are providing the following comments.

1. Regarding the carbon monoxide (CO) best available control technology (BACT) emission limit for Unit 1, we recommend that it be reduced from 0.50 lb/MMBtu to at least 0.42 lb/MMBtu 30-day rolling average. As NPPD pointed out in their application package, the RBLC database gives CO emission limitation ranges from 0.25 to 0.42 lb/MMBtu for existing pulverized coal-fired boilers. In the application, the NPPD used the 0.42 lb/MMBtu emission limit to calculate the CO emissions increase due to the proposed project. The NDEQ references the project at Neal Energy Center South which has a 0.42 lb/MMBtu 24-hour average that uses a neural net system to continuously optimize its CO emissions and states the absence of the optimization system on Unit 1 require manual "tweaks" to the system. The NPPD argues that since they do not propose to install a neural net at this time, a longer averaging period is appropriate to moderate the variability in CO emissions over time. The 0.42 lb CO/MMBtu 24-hour average would be a more stringent emission limit than a 0.42 lb CO/MMBtu 30-day rolling average, and the manual tweaks will be averaged over the 30-days.

Since allowances have been considered in the comparison of the neutral net system at the Neal Energy Center South through the extended averaging time for NPPD and the permit record is built around a BACT limit of 0.42 lb CO/MMBtu, there appears to be no legal or technical rationale for NDEQ to deviate from this value. BACT is designed to minimize emissions during all periods of time and the final BACT limit should reflect the value at which the unit is designed to operate. Unless there is some compelling reason to raise the limit beyond 0.42 lb CO/MMBtu, the limit should be established at a level no higher than that supported by the permitting record.

2. Regarding the source's existing CO continuous emissions monitoring system (CEMS) that is to be used until the Class I operating permit is renewed and possibly beyond, the NDEQ is requiring NPPD to conduct daily calibrations on their existing CO monitor. Even though the NSPS does not require CO monitoring, daily calibration is a minimum requirement for any monitoring system, whether used as a "direct compliance" or "indirect compliance" instrument. The CEMS data could be used to support whether the utility is meeting its CO limit or not. We recommend that NDEQ require the CO CEMS to be used and quality assured pursuant to 40 CFR Part 60, Appendix F, since the system is already installed. We encourage NDEQ to reconsider their "optional" approach and ask that they require NPPD to use the CO CEMS. In addition, we discourage NPPD from using Title V periodic monitoring or CAM process to re-evaluate the monitoring later on. PSD permits and associated compliance provisions must stand on their own. Title V periodic monitoring and CAM, as the courts tell us, may only supplement where no monitoring exists at all. Therefore, NDEQ should strive to establish the appropriate level of monitoring in the PSD permit and simply incorporate those requirements into the Title V permit when appropriate.

As always, we appreciate the opportunity to provide what we hope you will find to be constructive comments. Please contact Patricia Scott of my staff at (913) 551-7312 if you have any questions or comments regarding this letter.

Sincerely,

JoAnn M. Heiman
Branch Chief
Air Permitting and Compliance Branch
Air, RCRA, and Toxics Division