



February 28, 2012

FILE

Ms. Mary Jo Roth
Manager, Environmental Services
Great River Energy
1200 Elm Creek Boulevard
Maple Grove, MN 55369-4718

Re: Coal Creek NO_x BART Analysis

Dear Ms. Roth:

The North Dakota Department of Health (Department) is in receipt of Great River Energy's (GRE) "Coal Creek Station Units 1 and 2; Best Available Retrofit Technology Refined Analysis for NO_x Emissions; November 2011; Updated February 10, 2012" (Refined NO_x Analysis).

GRE's Refined NO_x Analysis was submitted in response to the Department's November 3, 2011 request that GRE provide additional information regarding the Regional Haze NO_x BART analysis for the Coal Creek Station. The Department's request came after GRE informed the Department that the Coal Creek Station NO_x BART analysis previously submitted contained errors.

The information requested by the Department is necessary for the Department to further review and consider the installation of NO_x control technologies at the Coal Creek Station – including Selective Non-Catalytic Reduction (SNCR) technology.

The Department's initial review of GRE's Refined NO_x Analysis indicates that certain material information remains lacking, along with discrepancies in the visibility analysis and cost information set forth in the Analysis. On February 23, 2012, Tom Bachman and I spoke with you and Deb Nelson regarding the Department's initial review and concerns with the Refined NO_x Analysis. Mr. Bachman also had further discussions with Deb Nelson and BARR Engineering Company on February 27, 2012, regarding these concerns. During these calls, the Department raised the following specific questions/areas of concern in need of GRE's further attention:

1. The visibility modeling GRE performed for the year 2000 is not accurate when compared to the modeling results for the years 2001 and 2002. Specifically, GRE's year 2000 modeling analysis indicates that greater visibility improvement is achieved with the use of a lesser emission control technology than when a more stringent control technology is used. In order for the Department to complete its analysis, GRE must correct the year 2000 visibility modeling.

2. Tables A-5 to A-10 present a summary of the cost/economic analysis of the various control options and the marketability of fly ash that could be contaminated with ammonia if SNCR were to be used at the Coal Creek Station. These tables appear to contain calculated costs that do not match values calculated from the data in the tables. As such, please verify the following costs and data in the tables:
- a. General Facilities
 - b. Engineering and Home Office
 - c. Process Contingency
 - d. Project Contingency
 - e. Pre Production Cost
 - f. Electricity
 - g. SW Disposal
 - h. Ammonia Mitigation
 - i. Lost Ash Sales
 - j. Urea
 - k. Capital Recovery

Further, as the Department indicated during our February 23 call, GRE must review its consideration and application of the EPA Pollution Control Cost Manual (2002) to certain data presented in its Refined NO_x Analysis. Specifically, while the EPA Control Cost Manual establishes 5% as the default value for Process Contingencies; GRE used 6%. Before the Department can consider GRE's deviation from the Manual's default value for Process Contingencies, GRE must set forth and explain its rationale for doing so. Additionally, the "Prepaid Royalties" cost item, identified under Capital Costs in Tables A-5 to A-10, does not appear in the EPA Control Cost Manual. An explanation for Prepaid Royalties must therefore be included, especially since GRE listed as zero "Royalty Allowance" under Capital Costs in the tables. Also, Table A-10 still lists Project Contingency at 41%. Because it appears 15% was actually used, the 41% label should be corrected. In addition, all text within the Refined NO_x Analysis should be checked to verify that it is consistent with any revised pollution control costs and visibility results.

Only once the Department has received this updated information from GRE will the Department be able to proceed with conducting and completing its analysis of the Refined NO_x Analysis. In any event, the Department will promptly proceed to conclude its NO_x BART determination for the Coal Creek Station. As such, GRE is directed to submit its revised information within ten (10) days of receipt of this letter.

Sincerely,



for
Terry L. O'Clair, P.E.
Director
Division of Air Quality

TLO/TB:saj
xc: Carl Daly; EPA Region 8