

Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

May 3, 2006

Mr. Jerry Menge Air Quality Program Coordinator Basin Electric Power Cooperative 1717 East Interstate Avenue Bismark, ND 58503

> Re: Completeness Review Permit Application No. AP-3546

Dear Mr. Menge:

The Division has reviewed your March 10, 2006 response to the Division's December 21, 2005 request for additional information for the application referenced above to construct a 422 MW (gross) pulverized coal fired electrical generating facility to be known as Dry Fork Station located in Section 24, T51N, R72W, approximately 7 miles north northeast of Gillette, in Campbell County, Wyoming. The following are issues that need to be addressed in order for the application to be complete:

BACT for 134 MMBtu/hr Auxiliary Boiler

The Division's December 21, 2005 letter requested a top down BACT analysis including an evaluation of a 0.03 lb/MMBtu NO_X emission level for the 134 MMBtu/hr Auxiliary Boiler. In response, Basin Electric evaluated Selective Catalytic Reduction, Low NO_X Burners, and Low NO_X Burners with Flue Gas Recirculation (LNB/FGR). Basin Electric only evaluated LNB/FGR at an emission level of 0.04 lb/MMBtu and proposed this level as BACT. A BACT analysis including emission levels of 0.03 lb/MMBtu and 0.035 lb/MMBtu is required.

BACT analysis for Mercury

A BACT analysis for mercury is required by WAQSR Chapter 6, Section 2(c)(v) including emission levels of 10×10^{-6} , 20×10^{-6} , and 30×10^{-6} lb/MW-hr. The BACT analysis should include control efficiencies associated with proposed emission levels and provide cost effectiveness numbers.

The application currently estimates uncontrolled mercury emissions at 60.4 to 90.6×10^{-6} lb/MW-hr and controlled mercury emissions at approximately 30×10^{-6} lb/MW-hr. For reference, the Utah Department of Environmental Quality recently issued a permit for the Intermountain Power Generating Station with a mercury emission limit of 20×10^{-6} lb/MW-hr for sub-bituminous coal and EPA estimates that halogenated PAC injection can typically achieve at least 90% mercury control.

Herschler Building · 122 West 25th Street · Cheyenne, Wyoming 82002 · http://deg.state.wy.us

ADMIN/OUTREACH (307) 777-7758 FAX 777-3610

ABANDONED MINES (307) 777-6145 FAX 777-6462 AIR QUALITY (307) 777-7391 FAX 777-5616 FAX 777-6937

AODI000678 QUALITY 7-7368

FAX 777-5864

SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973 WATER QUALIT (307) 777-7781 FAX 777-5973



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If you have any questions, you may contact this office at (307) 777-7340.

Sincerely,

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Ben

Bernard J. Dailey NSR Program Manager Air Quality Division

cc: Mike Warren File: AP-3546

DEQ/AQD 000679