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JOHN R. D'ANTON
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December 23, 2002

CERTIFIED MAIL NO. 7001 2510 0006 0906 5930
RETURN RECEIPT REQUESTED

Mr. Larry Messinger
Mustang Energy Company, L.L.C.
701 Market Street, Suite 953
St. Louis, MO 63101

Permit Application No. 2663
Mustang Generating Station
AIRS No. 35-031-0260

Re: Prevention of Significant Deterioration (PSD) Application No. 2663

Dear Mr. Messinger:

The New Mexico Environment Department (Department) has completed its technical review of the Mustang Energy Company, L.L.C (Mustang) permit application for the 300 MW coal-powered Mustang Generating Station proposed for McKinley County, New Mexico. The Department has concluded that it cannot issue a permit for the proposed facility based on the current administrative record. Therefore pursuant to 20.2.74.301 NMAC the Department requires the following information before the application can be processed further:

1. BACT Analysis

The Department requires a site-specific analysis of IGCC and CFB in order to make a determination regarding BACT for the proposed facility. Mustang has submitted several documents which together comprise the Best Available Control Technology (BACT) analysis for the proposed facility. The most recent of these documents was received by the Department on September 12, 2002 and included some information on Integrated Coal Gasification Combined Cycle (IGCC) and Circulating Fluidized Bed (CFB) systems. Although Mustang contends in that submission that IGCC and CFB are neither pollution control technologies nor available process technologies, Mustang has identified them as alternative processes for the production of electricity from coal. The Department, as the permitting authority, agrees that IGCC and CFB should be considered in the BACT analysis for the proposed facility, and therefore requires that Mustang submit an additional substantive analysis regarding the technical feasibility and availability of these methods. The analysis must include a discussion of the technical feasibility and availability of IGCC and CFB for the proposed site in McKinley County, including a discussion of existing IGCC and CFB systems including but not limited to those employed at the

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Tampa Electric Company 262 MW Polk Plant in Florida and the Cinergy Company 192 MW Wabash River Plant in Indiana. If Mustang concludes that IGCC or CFB do not meet the requirements for BACT as specified in the New Mexico regulation, such determination must be supported by appropriate documentation.

2. MACT Analysis

In the permit application received by the Department on March 7, 2002 Mustang indicated that the proposed facility will be a major source of hazardous air pollutants (HAPs), and will therefore be subject to 40 CFR 63, Subpart B. However, the material submitted by Mustang does not conform to the submission requirements of that subpart. In particular, the Department requires the following information before it can evaluate the Mustang case-by-case MACT submittal:

- a. Pursuant to 20.2.72.203 NMAC Paragraph A(3), Mustang must provide site-specific data on the coal to be processed at the facility, including anticipated mercury content. Although the application of March 7, 2002 estimates an uncontrolled mercury emission rate of 0.22 tons per year (Appendix E), recent data from EPA indicate that coal mined in McKinley County, New Mexico can have mercury content up to (and perhaps greater than) 0.24 parts-per-million by weight (see <http://www.epa.gov/ttn/atw/combust/utltox/hg1qfinal.zip>). Such a mercury content corresponds to an uncontrolled mercury emission rate for the facility of 0.39 tons per year (based on a coal firing rate of 1,616,676 tons per year as specified in the March 7, 2002 application). Because of this discrepancy site-specific coal data should be used throughout the MACT analysis;
- b. Per 40 CFR 63.43(e)(2)(xi), an estimated control efficiency must be supplied for the mercury control system proposed by Mustang for the facility. The March 7, 2002 application states that the proposed multi-pollutant control system "can result in mercury removal in the range of 20 to 90 percent" but Mustang must provide a particular site-specific removal efficiency estimate based on appropriate data and engineering calculations. This estimate must be the result of a MACT determination process consistent with 40 CFR 63.43(c)(2)(ii), and must include an analysis of expected mercury speciation considerations using appropriate data for the coal to be processed (see above);
- c. The Department invoice to Mustang of April 6, 2002 erroneously omitted the case-by-case MACT determination. A new invoice for the cost of reviewing this determination is attached to this letter. As specified in 20.2.75 NMAC (Construction Permit Fees), Section 11, Paragraphs A(1) and B, the cost of this review is \$31,500.00, and the Department will not review new information regarding MACT until it is paid.

Finally, please be advised that if the Department determines, based on the site-specific coal data, that the mercury potential-to-emit for the proposed facility may exceed the significant emission level specified in Table 2 of 20.2.74 NMAC (0.1 tons per year) Mustang must submit appropriate information concerning mercury to meet the requirements of 20.2.74 NMAC Section 302 (Control Technology Requirements), Section 304 (Additional Impact Requirements), Section 305 (Ambient Air Quality Analysis), and Section 306 (Monitoring Requirements).

3. Cumulative Visibility and Deposition Analysis

On November 26, 2002 the Department sent Mustang a letter requesting a revised modeling protocol for the cumulative visibility and deposition analysis required for this permit application. Mustang responded on December 9, 2002 requesting clarification on several issues raised in the Department letter. It is the Department's position on those issues that:

- a. Sources within 100 kilometers of each Class I area are required in the cumulative analysis. The 100 kilometer distance is defined from the perimeter of the Class I area out to a distance of 100 kilometers in all directions. After taking a detailed look at the distances from the Pecos Wilderness, the Department agrees that the 100 kilometer distance will exceed the dimensions of either domain. However, upon examination of the New Mexico emission inventory east of the Pecos Wilderness, there appear to be no increment consuming sources in that area. In light of this fact, the eastern extent of domain I will be sufficient to determine Air Quality Related Values (AQRV) at the Pecos Wilderness;
- b. The Department does not regard the use of ammonia limiting as an acceptable method for determining AQRVs. Consequently, the Department will base its review of visibility and deposition on results from the 1 ppb ammonia background calculations;
- c. The emission inventory that was supplied by the Department erroneously identified the Public Service Company of New Mexico San Juan Generating Station (SJGS) as not consuming PSD increment. After a detailed examination of the SJGS permit, the Department has concluded that Units 1, 3, and 4 consume increment for particulate matter and sulfur dioxide. Although the SJGS is greater than 100 kilometers from San Pedro Parks Wilderness, the Department requires that source to be used in the cumulative impact analysis due to the magnitude of its emissions. The Department is also investigating the increment consuming emissions from the Arizona Public Service Company Four Corners Power Plant (FCPP) but no conclusions have been made. The Department expects to make a determination regarding all increment consuming sources to be included in the modeling, including FCPP, by the time Mustang requests the inventory.

As Mustang is aware, the Department was scheduled to issue or deny an air quality permit for the

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Mustang Generating Station by January 1, 2003. However, the Department cannot issue an air quality permit based on the current administrative record. The Department is prepared to discuss a revised schedule for evaluating the permit application, contingent on Mustang's agreement to submit the information requested above. Further, the Department concurs with Mustang's statement in its December 9, 2002 letter that the BACT and MACT determinations should be finalized before Mustang conducts the modeling required above.

If you have questions about these issues please contact Mike Fowler of the Air Quality Bureau Permitting Section at (505) 955-8041. Mr. Fowler has replaced Lia Brodnax as the Department engineer assigned to this project.

Sincerely,



Richard L. Goodyear, P.E.
Permit Programs Manager

cc: John R. D'Antonio, Jr., NMED Secretary
Ralph Gruebel, Director, NMED Environmental Protection Division
Sandra Ely, Bureau Chief, NMED Air Quality Bureau