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June 4, 2008

Chad Schlichtemeier  
Wyoming Department of Environmental Quality  
Air Quality Division / NSR Program Manager  
Herschler Building  
122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002



**Subject: Medicine Bow Fuel & Power LLC  
Proposed Integrated Gasification and Liquefaction Plant  
(PSD Air Quality Permit Application AP-5873)  
Updated Pages to Air Quality Permit Application (AP-5873)**

Dear Mr. Schlichtemeier:

Please find enclosed eight (8) copies of revision pages for the Medicine Bow Fuel & Power PSD Air Quality Permit Application. Please replace the pages included in your copies of the December 31, 2007 revised permit application with these pages. A summary sheet detailing all the changes on a page-by-page basis is included as the first sheet in each set, so that you can easily find the revised pages and note all specific edits that were made with this revision and all revisions since the December 31, 2007 submittal.

These revision pages reflect changes to the mercury emission rate calculation, made in response to a question asked by Andrew Keyfauber in an email dated May 29, 2008, and revisions to the equipment leak calculations submitted via email on May 12, 2008. The revisions are detailed below.

Mercury Emission Rate Calculation

The turbine and total mercury emission rates calculated in Appendix B spreadsheets were increased as the result of a correction to the calculation. Previously, mercury emissions were calculated based on half the total turbine inlet flow as a result of misunderstanding the parameters specified by the mercury guard bed manufacturer. The corrected mercury emission rate is based on the total turbine inlet flow. Page 4-31 of the application document was revised accordingly to reflect the correct emission rate. Please note that page 4-31 of the application document states the total mercury emission rate, while the emission summary sheets in Appendix B detail the mercury emissions for each emission source at the proposed facility (the three combustion turbines). Unlike the individual turbine mercury emission rates, the total facility mercury emission

**MEDICINE BOW  
EXHIBIT GG  
PRE-HRG MEMO**

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rate is not expressed in scientific notation, and therefore is listed as 0.00 tons per year on the emission summary sheets.

#### Equipment Leak Emission Calculations

During May, the equipment leak emission calculations were revised in order to reflect lower equipment leak definitions. Previously, equipment leak emission rates were based on a 10,000 ppmv leak definition for all components in VOC service. The emissions were revised by lowering the leak definitions to 500 ppmv for valves and connectors in VOC service and 2,000 ppmv for pumps in VOC service. As a result, the overall control efficiency of the proposed Leak Detection and Repair (LDAR) program proposed as Best Available Control Technology (BACT) for this emission source increased by an average 5.8% over the previous calculations and the annual VOC emission rate decreased by 11.7 tons per year. The revised emission rates more appropriately address BACT for equipment leaks and are better aligned with recently promulgated NSPS standards and recent refinery agreements for LDAR programs. The revised emission calculation pages were electronically submitted to Mr. Andrew Keyfauber of your staff on May 12, 2008.

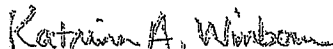
This submittal includes a hardcopy of the revised equipment leak calculation pages as well as various text revisions made throughout the application document reflecting the revised leak definitions and VOC and HAP emission rates. The text revisions have not been previously emailed to the WDEQ.

#### Conclusion

Also included in this package is one (1) CD-ROM containing an electronic version of the complete, revised permit application. If you need more copies, please let me know.

Please contact me via phone at (303) 740-2684 or email to [Katrina\\_Winborn@URSCorp.com](mailto:Katrina_Winborn@URSCorp.com) if you need additional information or copies of the revised application. Alternatively, you can contact Susan Bassett at (303) 740-3824 or via email to [Susan\\_Bassett@URSCorp.com](mailto:Susan_Bassett@URSCorp.com).

Sincerely,



Katrina Winborn, P.E.  
Sr. Air Quality Specialist

cc: Robert Moss, DKRW  
Susan Bassett, URS Corp.

Enclosures Page Change History and Revised Permit Application Pages  
CD-ROM

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