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The State
of Wyoming

Department of Environmental Quality

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Bureau of Land Management
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RE: Casper Draft Resource Management Plan and Environmental Impact Statement

Dear Mr. Murkin and Ms. Slone:

Thank you for the opportunity to comment on the Casper Draft Resource Management Plan and Environmental Impact Statement. These comments are specific to this agency's statutory mission within State government which is protection of public health and the environment. In that regard these comments are meant to, in association with all other agency comments, assist in defining the Official State Position.

Comments on Air Quality

According to Section 3.1.1, climate in the Casper Planning area is described as semi-arid with a mean annual wind speed of 12.8 mph out of the southwest. In the discussions of visibility and acid deposition, monitoring data are presented from the Bridger Wilderness Area and a site near Pinedale (respectively), both well outside and west (upwind) of the planning area. Activity within the planning area has little influence on the data from these sites as they are in the predominantly upwind direction. The only data presented applicable to the planning area are the Casper, Wyoming PM-10 monitoring results and the annual emissions data for 2001. For clarification, it should be noted that the 24-hour

PM-10 data presented are maximum concentrations measured during each year, while the supporting text implies that these are average values.

Review of the annual emissions estimate spreadsheets revealed the following additional concerns.

- Under coal bed natural gas, a formaldehyde emission factor of 0.6 grams/hp-hr was used in the emission estimate spreadsheets; this should be corrected to 0.06 grams/hp-hr, similar to the natural gas compression emission factor.

- Natural gas well emission estimates were calculated using analyses from the Pinedale Frontier formation, according to the spreadsheets. The Pinedale Frontier formation is outside the Casper planning area, making its applicability to this RMP questionable; BLM was informed of this concern on another occasion (see record number 2584 in the comment responses dated July 21,2006.)

- A brief review of producing gas zones in the planning area showed that they include the Lance, Fort Union, and Muddy formations. Comparing the input data with previous calculation estimate spreadsheets showed several changes, including amount of sales line horsepower needed, number of wells, and level of field horsepower per well.

- Working and breathing emissions calculations for natural gas well condensate tanks showed negligible differences from prior calculations; these calculations were generated using Cheyenne, Wyoming, inputs, also outside the planning area at a higher elevation (lower ambient pressure) than Casper, Wyoming.

The calculated dehydration unit emission rates used in previous calculations and the July 2006 draft EIS calculations were identical (0.0038 lb/hr), a value that will change with the wet gas analysis data input into GRI-GLYCalc. Checking a calculated estimate from New Source Review (NSR) permitting within the planning area, uncontrolled VOC emissions from a dehydration unit was found to be 3.2 lb/hr in the Waltman area field; controlled to 95%, this figure drops to 0.2 lb/hr, well above the 0.0038 lb/hr presented in the Casper RMP DEIS calculations. Several factors will affect the dehydration unit VOC emission rates, so input data needs to be correct. As such, the Department of Environmental Quality (DEQ) is concerned with the input data.

The DEQ is also concerned that the annual dehydration unit VOC emissions presented are incorrect. A review of the annual emission estimates shows they were generated using the 0.0038 lb/hr emission rate noted above multiplied by annual hours of operation (8,760 hours) yielding a product of 33 lbs per year. This product was then converted to tons and multiplied by the daily gas production in the planning area, for annual dehydration unit VOC emissions in 2011 of 2.55 tons/year (TPY) as found in the spreadsheets. First, it should be noted that multiplying these items yields units of tons-M SCF/day, not "TPY" as represented in the calculation spreadsheets.

Second, a check of another NSR permit in the planning area showed potential controlled VOC emissions of 3.5 TPY from a single 45 MM SCFD dehydration unit at a compressor

station; this is more than the total presented for planning year 2011 over the entire planning area at a fraction of the throughput.

The final concern related to Air Quality is related to the supporting technical air quality information for the EIS contained in Appendix J. Under section 3.0, Existing Air Quality, references are made to summary table J-3. This table presents ambient air NO_X, PM-2.5, and PM-10 monitoring data. The appendix states that the data summarized represents the ambient air quality background concentrations in the planning area. The only data that could be considered background are the NO_X and PM-2.5 data since these are collected at a site upwind of a coal mine, and are used to represent background levels. Of the PM-10 sites, all but two are located at coal mines; the other PM-10 sites are in an urban area and a coal-fired steam-driven electrical generation station. Additionally, two of the PM-10 sites listed in table J-3 are shown as being in Campbell County, outside of the planning area. Since the remaining PM-10 sites are at mining and urban areas, they are not representative of background PM-10 concentrations. The PM-10 data represents background plus activities. As such, in order to determine the background PM-10 concentrations, defensible ambient monitoring that meets current standards would need to be conducted. As found in Chapter 2, this would be done under management actions that would "(e)stablish within 1 year of approval of the RMP ROD, an air quality strategy to define the background air quality associated with federal actions approved under this RMP" followed up with a monitoring system to establish the air quality (Table 2-3, Records #1003 and 1004.) This work is subject to budget restrictions. Unfortunately, until monitoring work is done, PM-10 background concentrations are not defined in the Casper area EIS.

We appreciate the opportunity to comment in this process and look forward to working with you in the future. If you have any questions, please feel free to contact me at 307-777-7555.

Sincerely,

Todd Parfitt
Deputy Director
Department of Environmental Quality

TP/CH

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