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

March 18, 2008

Ms. Susan Bassett
EH&S Air Quality Team Leader
URS Corporation
8181 East Tufts Avenue
Denver, Colorado 80237

Re: MBFP IGL Plant
Permit Application AP-5873
Request for Information

Dear Ms. Bassett:

The Wyoming Air Quality Division (Division) is requesting additional information to supplement the application for the proposed industrial gasification & liquefaction plant near Medicine Bow, Wyoming.

Near-Field (AERMOD) Impact Analysis

1. Modeled Emissions for the Carbon Basin Mines: Five area sources are used in the modeling to represent emissions from mining activities. The modeled PM_{10} emission rates, in terms of grams per second per square meter ($g/s/m^2$), are shown for each of these area sources in the table below. Also shown are the equivalent emissions in terms of grams per second and tons per year based on the calculated area of each source. Appendix B in the permit application provides a calculation sheet for PM_{10} emissions from mining activity with total emissions of 60.2 tons per year. This total only accounts for a fraction of the modeled emissions. The Division requests detailed information on the basis of the modeled emissions for each area source used in the modeling for NO_x, CO, SO_2, and PM_{10}.

2. Modeled Sources for the Carbon Basin Mines: Sources *Mine_SP*, *Mine A_EP*, *MineA_S1*, and *MineA_S2* were modeled with non-zero emissions for the PM_{10} WAAQS model runs and emission rates of zero for the PM_{10} PSD increment runs. For the SO_2 increment runs, the *MineA_EP* source was included with a non-zero emission rate, but no other area source was modeled. Please provide the Division with justification for the emissions used in the model runs for PSD increment.

3. Area and Volume Source Parameters: Please provide the Division with justification for the release heights and dimensions that were used to model the volume and area sources. Specifically, please describe how the actual physical dimensions of the sources relate to the dimensions used in the model as based on EPA modeling guidance.

4. Base Elevations for Modeled Sources: Please provide the Division with justification of the base elevations that were chosen for the point, area, and volume sources at the IGL plant. For

example, were the elevations determined from DEM files within AERMAP, or were they provided by MBFP based on project plans?

Modeled Area Sources for PM_{10}

Source ID	Source Description	Area (m^2)	PM_{10} Emission Rate ($g/s/m^2$)	PM_{10} Emission Rate (g/s)	PM_{10} Emission Rate (tpy)
CoalStor	On-Site Coal Storage	20995.76	7.50000E-05	1.575	54.7
MineA_SP	Mine Area / South Portal	351416.6	6.00000E-06	2.108	73.3
MineA_EP	Mine Area / East Portal	215535.4	6.00000E-06	1.293	45.0
MineA_S1	Mine Area / Surface Mining (On-Site 2010)	144754.2	1.34000E-05	1.940	67.4
MineA_S2	Mine Area / Surface Mining (Off-Site 2010)	188873.4	1.34000E-05	2.531	88.0

If you have any questions, please contact me at (307) 777-7816.

Sincerely,

James Nall

James (Josh) Nall
NSR Dispersion Modeler
Air Quality Division