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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 19, 2011

TO: Internal File

THRU: Priscilla Burton, Team Lead
Daron Haddock, Title V Coal Program Manager *DRH*

FROM: Peter Hess, Environmental Scientist III, Engineering *PHH km sas*

RE: DRAFT Environmental Impact Statement, Alton Coal Development, LLC, Coal Hollow Mine, C/025/0005, Task ID # 3949

SUMMARY:

The U S Department of the Interior / Bureau of Land Management has prepared and forwarded a **DRAFT** Environmental Impact Statement (DEIS) relative to the Alton Coal Tract Lease By Application (LBA). The document analyzes and discloses the potential impacts of leasing and mining the coal from the Alton LBA. The Utah Division of Oil, Gas and Mining received the document on November 4, 2011.

This reviewer has a concern about the secondary recovery of reserves where overburden depths are from 200 to 700 feet. Although surface mining methods may not be determined as economical, the implementation of underground extraction methods at these depths of cover may create multiple surface hazards and impacts adding expensive mitigation costs to the mining costs.

This memorandum will address concerns relative to the coal mining Operation Plan, R645-301-521, and the Subsidence Control Plan, R645-301-525.

OPERATION PLAN / SUBSIDENCE

Section 2.3.2.1 Mining Methods

Section 4.1.1, Types of Effects

The DEIS document briefly discusses the uses of various types of underground coal recovery including augering of high wall locations, room and pillar recovery with continuous

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miners, and longwall extraction. There is no mine plan submitted, nor is there an overburden isopach which will depict areas where underground techniques may be implemented.

Information regarding the physical conditions of the Alton LBA state that a 15 foot seam thickness will be extracted from the area where cover can range from 200 to 700 feet of thickness. The DEIS states that settling of the overburden would probably cause surface deformations of at least 9.75 feet.

The Division is concerned that this amount of deflection under shallow overburden areas could create multiple surface impacts which could include openings from the surface into the mine workings. Chimney type sink holes or large tension cracks in the soil zone paralleling the longwall gate roads would be the most prevalent types of impacts.

The land could have multiple open wounds which could affect surface water flows, recreational use, and domestic and wildlife use of the area. (See page 3-40, Section 3.8.1.2, Federal Lands & Existing Land Uses On & Adjacent to the Tract).

The DEIS does not contain any description of the measures which would be required to prevent, reduce, or correct material damage to the land surface.

The DEIS does not contain any description of the measures which would be required to monitor for impacts in high tension areas, or what would be required of the Permittee to barricade off such impacts to prevent accidents from use of the surface lands by recreationists, wildlife, etc.

The Division believes that the BLM may want to consider limiting coal recovery in shallow cover areas where underground mining is to take place.

It may be possible to improve the economic recovery of coals under the shallow cover (300 – 500 feet of cover) areas by implementing

- 1) A mine wide blasting regime to remove overburden depths greater than 200 to 300 feet.
- 2) Adding a dragline to the shovel/truck combination to enhance the economics of the burden removal process, or
- 3) A combination of 1 and 2.

Fewer impacts would occur by increasing the area which is surface mined, rather than trying to implement underground continuous mining methods in the shallow cover areas.

CONCLUSION

The Division believes multiple impacts will occur to the land surface where underground secondary extraction methods are implemented under thin overburden.

These impacts will create dangerous openings for wildlife, and recreational users. Chimney type sink holes could develop (based on the type of mining method utilized) long after mining is completed.

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The DEIS does not contain any description of the measures which would be required to monitor surface impacts in high tension mining areas (such as above longwall gate roads) and in areas where continuous mining retreat methods are used and stumps of coal left can affect surface deformation.

The surface deformation monitoring regime must include a requirement to adequately record identified surface impacts, and a 24 hour notification requirement to the BLM and the DOGM where impacts could create hazards for humans, and/or wildlife.

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