

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 8, 2004

OK

TO: Internal File

THRU: Wayne Western, Team Lead *WWT*

FROM: Steve Fluke, Reclamation Hydrogeologist
SF

RE: Phase I Bond Release – Hardscrabble Substation Area, Castle Gate Holding Co.,
Castle Gate Mine, C/007/0004, Task ID #2037

SUMMARY:

The Division of Oil, Gas and Mining (the Division) received a Phase I Bond Release Application on September 24, 2004 from Castle Gate Holding Company for the Castle Gate Mine. The bond release application is for reclamation of the 0.72-acre former substation area of Hardscrabble Canyon. This memo addresses the hydrology section of the application. The amendment to the MRP includes the reclamation as-built specifications for the two drainages in the former substation area (HCRD-12 and the substation swale road crossing). Because of early winter conditions, a site inspection was not performed for this review to verify the drainages were constructed as reported.

The proposed bond release should not be approved at this time. Additional hydrologic information is needed to meet the requirements of the Coal Mining Rules



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TECHNICAL ANALYSIS:

RECLAMATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Hydrologic Reclamation Plan

The reclamation as-built calculations, drawings, and cross-sections for drainages HCRD-12 and the swale road crossing are included in Appendix 3.3O. The as-built specifications for HCRD-12 vary slightly and the channel is shorter than the approved reclamation design because the upper part of the drainage appeared to be undisturbed. There was no approved reclamation design for the swale road crossing. The as-built calculations and information provided have been reviewed and appear to be accurate and complete. Furthermore, the cover page of the addendum has been signed and stamped by a Registered Professional Engineer. The drainages can handle the approved reclamation design for a 10-year, 6-hour storm event.

However, the as-built calculations for HCRD-12 and the swale road crossing should be presented in Appendix 3.3N, Reclamation As-Built Hydrology Calculations. Channel certifications for all reclaimed drainages should be included in Appendix 3.3O, Reclamation As-Built Channel Certifications. To be consistent with the text and format of the approved MRP, the Permittee needs to include the as-built calculations and channel certification statements for drainages HCRD-12 and the swale road crossing in these appendices.

Findings:

The information provided is not consistent with the text reference documenting drainage in the approved reclamation plan. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-761; The Permittee needs to include the as-built calculations and channel certification statements for drainages HCRD-12 and the swale road crossing in Appendices 3.3N and 3.3O.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Final Surface Configuration Maps

Exhibit 3.2-23, Hardscrabble Canyon As-Built Topography and Treatment Map, shows the substation area and drainages HCRD-12 and the swale road crossing and does not need updating.

As-built profiles and cross sections are included in the submitted amendment to Appendix 3.3O. However, as-built profiles and cross sections for all reclamation channels are referenced in the text as being provided in Exhibits 3.3-21A, 3.3-21B, 3.3-21C, and 3.3-22. The as-built profiles and cross sections for drainages HCRD-12 and the swale road crossing should be provided in Exhibits 3.3-21 and 3.3-22, respectively.

Findings:

R645-301-761; The Permittee needs to provide the as-built profiles and cross sections for drainages HCRD-12 and the swale road crossing in Exhibits 3.3-21 and 3.3-22, respectively, as referenced in Section 3.3.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

Information provided is adequate to update the Cumulative Hydrologic Impact Assessment if necessary.

Findings:

The information provided meets the requirements for bond release.

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RECOMMENDATIONS:

The site is not recommended for Phase I bond release until the deficiencies identified above are addressed and until after a field visit is conducted by the Division to confirm that the Permittee has constructed the drainages as reported in the amendment.

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