

## CASTLE GATE HOLDING COMPANY

Castle Gate Mine  
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Helper, Utah 84526  
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January 31, 2005

RECEIVED

FEB 07 2005

DIV. OF OIL, GAS & MINING

*Meeting  
2/05/0004*

Ms. Pamela Grubaugh-Littig  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: Phase I Bond Release Application, Hardscrabble Substation Area, Castle Gate Holding Company, Castle Gate Mine, C/007/004, Task ID #2037**

Dear Ms. Grubaugh-Littig:

Castle Gate Holding Company (CGHC) is herewith addressing the Divisions finding regarding the aforementioned. In keeping with past practice, Permittee will list the deficiency in italics followed by its response in regular type. All of the Permittee responses were discussed and jointly agreed to in a meeting held in the Division office in SLC on December 16, 2004. Present at this meeting were Dennis Ware (CGHC), Layne Jensen (Earthfax Engineering) Priscilla Burton, Wayne Western, Steve Fluke and Jerriann Ernsten from the Division.

*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.*

Since the as-built calculations and channel certification statements for drainages HCRD-12 and the swale road crossing already exists in Appendix 3.3O that, rather than duplicating this data in Appendix 3.3N, a reference in the text was made indicating that the as-built calculations and channel certifications for the substation area are presented in Appendix 3.3O. This statement has been made in Chapter 3, Section 3.3, Page 3.3-37.

*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.*

Since the as-built profiles and cross sections for drainages HCRD-12 and the swale road crossing are in Appendix 3.3O that, rather than duplicating this data in Exhibits 3.3-21 and 3.3-22, a reference in the text was made indicating that the as-built profiles and cross-sections for drainages HCRD-12 and the swale road crossing are found in Appendix 3.3O. This statement has been made in Chapter 3, Section 3.3, Page 3.3-36.

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The C1 and C2 as well as the required revisions as discussed above are enclosed.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Dennis Ware  
Controller and Administrative Manager

A handwritten signature in black ink, appearing to read "Dennis Ware", written over the printed name.

Enclosures

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** Castle Gate Holding Company

**Mine:** Castle Gate Mine

**Permit Number:** C/007/004

**Title:** Hardscrabble Substation Area Phase I Bond Release Response to Technical Analysis

**Description,** Include reason for application and timing required to implement:

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?

*Explain:* \_\_\_\_\_

- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you.** (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

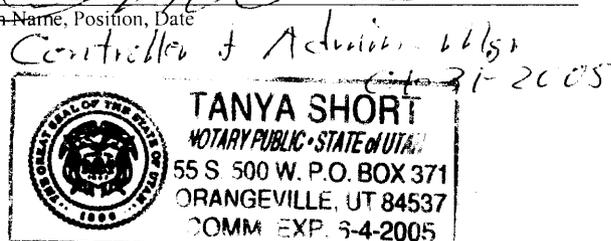
Dennis Logic  
Print Name

[Signature]  
Sign Name, Position, Date

Subscribed and sworn to before me this 31st day of January, 2005

Tanya Short  
Notary Public

My commission Expires: 6-4, 2005  
Attest: State of Utah ) ss:  
County of Emery



<b>For Office Use Only:</b>    	<b>Assigned Tracking Number:</b>   	<b>Received by Oil, Gas &amp; Mining</b>   
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presented in Table 3.3-9. Each channel was designed to account not only for the depth of flow during the design event but also an appropriate freeboard.

All channels were designed to be trapezoidal except those to control runoff from the road. Most have no extraordinary features. However, because HCRD-6 will be constructed in approximately the same location as the pre-mining drainage, the runoff conveyed by this small channel will drop over an existing, near-vertical ledge and into a plunge pool. Runoff will then be conveyed downslope to HCRD-7. The design of the channel and plunge pool are included in Appendix 3.3C. Profiles of this and other reclamation channels are provided on Exhibits 3.3-8C and 3.3-8D. As-built profiles and cross sections for all reclamation channels, except for the substation area, are provided on Exhibits 3.3-21A, 3.3-21B, 3.3-21C, and 3.3-22. As-built profiles and cross-sections for HCRD-12 and swale road crossing in the substation area are found in Appendix 3.3O.

Road culverts were not installed. Instead of culverts, swales were installed at the former culvert locations and at two additional locations as shown on Exhibit 3.3-19.

Appendix 3.3C also provides an evaluation of the need for filter-blanket materials beneath the riprap in reclamation channels which remain to be constructed. According to these evaluations, filter blankets will not be required in any of the channels except for the upstream, steepest portion of channel HCRD-8 (a length of approximately 320 feet). The design of this filter material is discussed in Appendix 3.3C, as are riprap gradations for each reclamation channel. Filter-blanket sizing and riprap gradations were determined in accordance with methods presented by Barfield et al. (1981).

Estimates for riprap and filter blanket volumes required for construction of future reclamation channels are presented in Table 3.3-10. Approximately 140,700 cubic feet of riprap (9,800 tons) and 9,520 cubic feet of filter material (620 tons) will be required to construct the reclamation channels.

During reclamation, however, it was identified through sampling, see Appendix 3.3Q, that more filter material (5,200 tons) was needed in channels HCRD-7 and HCRD-8 where riprap sizing was  $D_{50}$  -15" and  $D_{50}$  -24". Therefore the filter blanket began at station 11+00 to 18+45 of channel HCRD-7, then from station 22+00 to 38+00 of channel HCRD-8.

As noted previously, reclamation of the No. 4 Mine side canyon was completed in 1995. Reclamation of the balance of Hardscrabble Canyon started in 1996. Since reclamation channel HCRD-1 from the No. 4 Mine canyon cannot empty into the main reclamation channel HCRD-8 until

the main canyon is reclaimed, HCRD-1 was routed to operational diversion HCD-7 until HCRD-8 was installed.

Information regarding the operational diversions is presented in Appendix 3.3B, Tables 3.3-1 through 3.3-4, and Exhibit 3.3-3. These structures were retained until replaced during reclamation.

As-built reclamation channels calculations and certifications for the substation area are presented in Appendix 3.3O and shown on Exhibit 3.3-23 (Hardscrabble Canyon As-Built Reclamation Topography and Treatment Map).

### **3.3-4(3) Alternative Sediment Control Measures**

Due to the narrow nature of the canyon and the desire to avoid redisturbance of a significant portion of Hardscrabble Canyon in a future phase of reclamation, the operational hydrology sedimentation ponds 007, 008 and 009 were removed during the Phase II grading operations. Therefore, alternative sediment control measures (ASCMs) were implemented during reclamation of the site to reduce the quantity of sediment yield from the area. As noted in section 3.3-4(1), these ASCMs will include the following practices in varying degrees:

1. Ripping of the regraded surface prior to placement of growth media,
2. Incorporation of hay mulch into the growth media,
3. Deep gouging of the growth media,
4. Seeding the prepared soil,
5. Addition of more mulch following seeding, and
6. Physically or chemically anchoring the final mulch layer.

Also, as noted in Section 3.3-4(2), stream channels which are constructed during reclamation will be armored with appropriate riprap to provide long-term protection against channel erosion. Furthermore, areas that do not exhibit successful revegetation will be reseeded. Based on Simons, Li & Associates (1983), these methods are effective at controlling sediment yields for the purpose of mine reclamation.