

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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February 5, 2008

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TO: Internal File

THRU: Wayne H. Western, Team Lead *WHW*

FROM: David Darby, Environmental Scientist ~~HD~~

RE: Phase I Bond Release for Slurry Ponds 4 and 5, and Borrow Area A, Hiawatha Coal Company, Hiawatha Mine, C/007/011, Task# 2895

**SUMMARY:**

In a letter dated January 10, 2008, the Permittee requested Phase I bond release on portions of the Hiawatha Mine. The Permittee did most of the reclamation work in or around the Slurry Pond 4, Slurry Pond 5, Refuse Pile 2, the Preparation Plant, Borrow Area F, and Borrow Area A.

This memo covers hydrology requirements.

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**TECHNICAL ANALYSIS:**

**RECLAMATION PLAN**

**GENERAL REQUIREMENTS**

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

**Analysis:**

Hiawatha has supplied a description of the disturbed and reclaimed areas, and their acreages in Table II-13. The Applicant states Slurry Pond 4 has been reclaimed except for a small area on the north-east (0.96 acre) and two affected areas totaling 7.64 acres.

A topsoil pile will be use to reclaim Slurry Pond 4. Substitute material (577 yrds.) will be needed from Borrow Area A to complete Slurry Pond 4. After topsoil is spread it will be ripped to a depth of 18 inches.

The main cell of Slurry Pond 5 has been covered with topsoil. Reclamation was completed in 1999. An affected area consisting of 1.91 acres lies west of Slurry Pond 5.

**Findings:**

The applicant has submitted sufficient information to address the minimum requirement of the General Requirements Section.

**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**

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Exhibit VII shows the operational features of Slurry Ponds Nos. 4 and 5 prior to reclamation. Sheet No. VII-10 shows the borrow areas (A, B, C, D and F) planned for substitute soil. Exhibit VII-11 also shows the design and layout of Sedimentation Pond 005 that was used to treat the drainage of the embankment outslope of Slurry Pond No. 4. Both are now reclaimed, except for 0.96 acres in the northeast corner of the slurry pond. There is no mention of the status of Refuse Pile No. 2. Exhibits VII- 11 and 12 show location and design of Sedimentation Ponds 006 and 007 which treat the runoff from the embankment outslope of Slurry Pond No. 5. These ponds remain intact and functional. The Permittee discusses the Affected area. The location of this area is not understood.

**Findings:**

The Permittee has provided sufficient information to describe the minimum requirements of the Hydrologic Reclamation Plan in Hydrologic Information Section.

The Permittee will be asked to define the Affected Area in the Maps, Plans and Cross-section Section.

**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:**

**Reclamation Surface And Subsurface Manmade Features Maps**

The Applicant describes the areas reclaimed on Page 2-37. A table is presented identifying the acreages reclaimed and acreages remaining. Some of the descriptions and locations of remaining disturbed areas are confusing, ie. Affected areas and then northeast corner area. A map needs to be submitted identifying the areas reclaimed, and which remain disturbed.

**Findings:**

The Permittee has not met the requirements of Maps, Plans and Cross-section of the Reclamation Section.

**R645-301-731** The Permittee needs to submit a map identifying the reclaimed areas and disturbed areas remaining under under this application.

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The Permittee will need to check other maps and text in the MRP to ensure they are current with the information in the Phase I application, ie, Exhibit VII in map section of Chapter 7 and Appendix VII in Chapter 7 Appendices.

**RECOMMENDATIONS:**

The Division should deny the bond release until all of the above deficiencies have been adequately addressed.

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