

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

1/11/07

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TO: Internal File

THRU: Wayne Hedberg, Permit Supervisor, Task Manager *DWH*

FROM: Peter H. Hess, Environmental Scientist/Engineering, Team Lead *PHH by an*

RE: As-Builts For Pace Canyon Fan Portal, Canyon Fuel Company, LLC, Dugout Canyon Mine, C/007/039, Task ID #2700

SUMMARY:

The Permittee submitted an application to the Division in 2005 to permit a second mine ventilation fan and an intake portal in Pace Canyon. The amendment involved an air shaft for the fan, as well as topsoil storage facilities, and two UPDES outfalls. The division granted final approval of the application (Task ID #2130) on May 20, 2005.

Construction activities in Pace Canyon including seeding were completed in 2006.

The Permittee submitted "As-Built" information for the constructed facilities including revised text, revised / updated hydrologic designs and calculations (Chapter 7, Appendix 7-12) and updated maps on November 15, 2006.

The Division has identified this amendment to the Dugout Canyon Mine MRP as Task ID #2700.

This technical memo will address adequacy of the application as it relates to the R645 Coal Mining Rules Section 500, Engineering discipline.

TECHNICAL ANALYSIS:

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

OPERATION PLAN

Analysis:

The revisions submitted to Chapter 5 for the Pace Canyon facilities consists of minor text changes with additional words added to include the sediment basin implemented at the tow of the topsoil pile located on the north end of the disturbance.

The revised text changes to page 5-3 includes a minor change which references the sediment basin located at the toe of the topsoil pile on the north end of the disturbed area.

The minor text change included on page 5-4 references Figure 7-12C, which details the sediment trap and the cross sections of same. This structure is the primary sediment control for the majority of the disturbed area, although alternate sediment control measures are utilized up-gradient of this basin.

Page 5-17 includes a minor revision to add a small building adjacent to the Mine fan motor building. This building encloses a lubricating pump for the fan motor bearings.

The minor revision made to page 5-37 once again references the sediment basin at the toe of the northern most topsoil pile.

Revisions to page 5-50 are changes to tense, and make no change to the meaning of the text.

The revision made to page 5-68 is a reference to Figure 7-12F in Appendix 7-12. Figure 7-12F details the Pace Canyon Fan Reclamation Watershed Boundaries.

None of the aforementioned text changes have an affect on the meaning on the text in which they are included. This amendment to the mining and reclamation plan should be approved.

Findings:

The revised pages proposed for Chapter 5 enhance the accuracy of the currently approved Chapter 5 pages, and meet the minimum requirements of the R645 Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS



Analysis:

Affected Area Maps

The Task ID #2700 amendment also contains **PLATE PC5-5, PACE CANYON FAN RECLAMATION TOPOGRAPHY AND CROSS-SECTIONS** which details the anticipated reclamation contours and cross-sections for the fan portal facilities.

Sections A-A', B-B' and C-C' depict the overall gradient of the area upon reclamation. Section C-C' parallels the longitudinal axis (bearing, North 20 degrees East) of the area, with B-B' on the latitudinal axis, (bearing, South 114 degrees East). Section A-A' (bearing, North 7 degrees East), also describes the proposed reclamation contour on that axis.

A-A' depicts that one fill and two cuts will be made to reclaim that area. The fill will be established at a gradient of 5.7 H/1 V.

B-B' depicts one cut and one fill area. The fill will be established at a gradient of 3.85 H/1 V.

C-C' depicts three cuts and one fill to reclaim the area. The single fill will be graded to achieve an approximate 10H / 1V slope.

PLATE PC5-5 is P.E. certified by Mr. Richard B. White, Utah registered professional engineer (See R645-301-542.310).

Mining Facilities Maps

PLATE PC5-2, PACE CANYON FAN SURFACE FACILITIES AND CROSS-SECTION LOCATIONS, which has been submitted as part of the Task ID #2700 application details a plan view and the operational cross-sections for the "as-constructed" facilities.

The drainage controls / diversions are depicted, as are the methods utilized to treat runoff within and adjacent to the disturbed area. Other items depicted include the sites two topsoil piles, operational surface contours, pre-construction contours, and the relationship of the Gilson coal seam to the facilities.

PLATE PC5-2 has been certified by Mr. Richard B. White, P.E. of EarthFax Engineering, (October 23, 2006) (See R645-301-512.120).



OPERATION PLAN

Certification Requirements

Plates PC5-2 and PC5-5, which are relative to the R645-301-500, engineering requirements, are both certified by a Utah registered professional engineer.

Several other plates have been submitted as part of Task ID #2700. These include the following:

- 1) Figure 7-12A, Pace Canyon Fan Disturbed Area Diversions
- 2) Figure 7-12B, Pace Canyon Fan Undisturbed Water Shed Boundaries
- 3) Figure 7-12C, Pace Canyon Fan Sediment Trap Detail and Cross-Sections
- 4) Figure 7-12D, Sediment Basin Detail and Cross-Sections
- 5) Figure 7-12E, Pace Canyon Fan Sediment Control Map
- 6) Figure 7-12F, Pace Canyon Fan Reclamation Water Shed Boundaries.

All figures are included in Appendix 7-12, and are relative to meeting the requirements of the hydrology portion of the R645 Coal Mining Rules.

All figures have been certified by Mr. Richard B. White, a Utah registered professional engineer.

Findings:

The maps and plans submitted as part of the Task ID #2700 amendment that are relative to the R645-301-500, Engineering requirements meet the minimum regulatory requirements of that section.

All figures that have been submitted relative to the R645-301-700, Hydrology requirements have been certified by a Utah registered professional engineer.

RECOMMENDATION:

The Pace Canyon Fan Portal "as -built" information which has been submitted, as it relates to the R645-301-500 Engineering requirements, meets the minimum regulatory requirements of that section and it should be approved.