

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

JK

April 6, 2007

TO: Internal File

FROM: James D. Smith, Environmental Scientist I - Geology, Team Lead *DS 04/10/07*

RE: Wild Horse Ridge Tank Seam As-Built, Co-op Mining Co., Bear Canyon Mine, C/015/0025, Task ID #2753.

SUMMARY:

Actual construction of the Wild Horse Ridge roads and portals produced results that did not exactly match pre-construction drawings and specifications. This amendment revises and corrects a number of plates and tables to more closely match what is actually on the ground.

This As-Built amendment was originally submitted as part of the Wild Horse Ridge Tank Seam As-Built/Snow Storage amendment, received May 11, 2006: it was assigned Task # 2523. Because that initial submittal was found deficient, the Permittee revised and resubmitted the amendment: the Division received it on October 2, 2006 and assigned it Task # 2588. During the Technical Review of that second submittal it became evident that the two tasks - the Snow Storage amendment in response to the NOV and the Wild Horse Ridge As-Built amendment - needed to be separated in order to expedite the abatement and termination of the NOV. The Division received the third Snow Storage submittal on October 4, 2006. This third iteration, which addressed only the snow storage issue, was found sufficient for incorporation into the MRP (Task # 2669). A letter of conditional approval for the Snow Storage amendment was sent November 14, 2006, the Division received clean copies December 11, 2006, and the final approval letter was dated December 12, 2006.

The other half of the third submittal of the Wild Horse Ridge As-Built/Snow Storage amendment, which addressed only the As-Built deficiencies, was submitted October 10, 2006 (received October 13, 2006). The information was scanned into the Division's electronic file system, but the paper copy was somehow lost, and the amendment was not given a Task number and was not assigned for technical review. An inquiry from the Permittee as to the status of this amendment brought the oversight to the Division's attention. A copy of the submittal was regenerated from the scanned file on February 23, 2007 and the amendment was assigned task #2753.

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TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Diversions: Miscellaneous Flows

Just above the coal storage bin area (BTCA Area W), culvert C-26U has two inlets, one for the ephemeral stream channel and the other for ditch D-28U.

Calculations for culvert C-34U on page 7G-88 do not include the 0.1 cfs runoff from AD-19 (BTCA V): the runoff calculation for AD-19 is on page 7G-19. The Division used FlowMaster to calculate the flow characteristics for C-34U with the additional runoff. Because of the small volume of runoff, flow velocity was only 0.01 ft/s faster than the value in the MRP and depth matched the value in the MRP.

In Table 7-24, AU-27 is included in the sub-drainages reporting to D-33U, but AU-27 does not report to this ditch. Subdrainage AU-29 reports to two ditches, D-33U and D-35U, and the 0.20 cfs runoff from AU-29 has been included in the design calculations for both ditches. These factors result in excess capacity in the design of D-33U and D-35U, so these ditches easily meet the requirements of the Coal Mining Rules.

Table 7-25 and Plate 7-1G show culvert C-37U has been abandoned in place. The entry in Table 7-24 that shows culvert C-37U reports to ditch D-31U needs to be corrected. C-37U has been abandoned in-place and it is not C-37U that reports to D-31U, but rather subdrainages AU-21, AU-22, and AU-26 that report to D-31U by way of D-37U: it appears the discharge volumes for these subdrainages were included in calculating the capacity of D-31U on page 7G-191.

Table 7-25 indicates that C-32U either was never built or has been abandoned. On Plates 7-1G and 7-5a, culvert C-32U needs to be removed or labeled "Abandoned In Place", as appropriate.

D-25U reports to Catch Basin 2. Ditch D-24U starts above Catch Basin 2 and runs parallel to D-25U for a short while. The inlet to the catch basin is adjacent to ditch D-24U; on

Plate 7-1G it looks as though D-25U reports to D-24U rather than the basin. The Permittee needs to modify Plate 7-1G to clearly show ditch D-25U goes to the catch basin and not to D-24U.

Sediment Control Measures

Catch Basin 2 at BTCA W is designed for total containment, but the hatching for the BTCA and the line for D-24U overlap, making it appear the BTCA Area drains to D-24U. The Permittee needs to revise the hatching for BTCA W and the line for D-24U (along with the line for D-25U) on Plate 7-5A so it does not appear BTCA W drains to D-24U.

Findings:

Hydrologic Information is not sufficient to meet the requirements of the Coal Mining Rules. Before the Division can approve this amendment, the Permittee needs to provide the following in accordance with:

R645-301-742.330, The Permittee needs to revise Plate 7-1G to clearly show that ditch D-25U goes to Catch Basin 2 and not to D-24U. The Permittee also needs to revise the hatching for BTCA W on Plate 7-1G so it does not appear part of BTCA W drains to D-24U.

R645-301-742.330, The Permittee needs to show in Table 7-25 that AD-19 reports to culvert C-34U, and include the runoff from this area in the design calculations on page 7G-88.

R645-301-742.330, On Plates 7-1G and 7-5a, culvert C-32U needs to be removed or labeled "Abandoned In Place", as appropriate.

R645-301-742.330, The Permittee needs to correct the entry in Table 7-24 that shows culvert C-37U, which has been abandoned in place, reports to ditch D-31U.

RECOMMENDATIONS:

The proposed amendment should not be approved until the listed deficiencies have been addressed satisfactorily.