

December 23, 1986

TO: Technical File

FROM: Dave Cline, Reclamation Hydrologist DJC

RE: Soldier Creek Coal Company, Soldier Canyon Mine, NOV
N85-4-15-1, Abatement Response Plans Received on September
20, 1985, As Built Plans Received on October 31, 1986,
ACT/007/018, Carbon County, Utah

SUMMARY

On May 2, 1985 Soldier Creek Coal Company (SCCC) received the above mentioned violation because embankment widths and side slopes on the sedimentation pond did not conform to the approved plan. On March 20, 1986 the Division granted conditional approval for the abatement of the violation which included partial reconstruction of the sediment pond embankment and pond inslopes. Stipulation #2 required certified designs and construction reports for the pond. As a part of the construction report Soldier Creek was required to include as-built contour drawings, a stage-capacity curve and appropriate cross sections to the Division. After review of the as-built contour drawings, stage capacity curve and cross section it has been determined that SCCC must resubmit more detailed cross sections to the Division. The pond cannot be determined to be in compliance with UMC 817.46 until the cross sections are submitted. On December 11, 1986 Division Hydrologist Dave Cline, met with Dave Spillman of Soldier Creek Coal Company, at the mine and told Mr. Spillman exactly what would be required for the cross sections in order to satisfy the stipulation. During the site visit the embankment next to Soldier Creek was also observed. Soldier Creek Coal has reworked some of the boulders in the channel in order to provide protection for the embankment from high flows. The boulders have been placed in a manner that may actually aggravate the problem rather than protect the embankment. The boulders have been placed away from the embankment approximatey one to two feet in the channel. This configuration will probably cause more erosion to the embankment because water has the potential to scour behind the boulders and erode the embankment.

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BODY

The as-built contour drawings, stage capacity curve and cross-section have been reviewed in order to determine if the reconstructed pond is in compliance with UMC 817.46. The attached calculations show that the stage capacity curve has been computed correctly from the contour drawing of the pond. Runoff volumes and sediment volumes have been computed for the site and the pond volume is sufficient to contain the 10 year, 24-hour precipitation event runoff.

The cross-section as submitted is not adequate to determine if the pond and spillway system is adequate to pass the 10-year, 24-hour and the 25-year, 24-hour precipitation event. In order to make this determination the cross-section must contain a schematic of the spillway system and surveyed elevations of the top embankment, crest of the emergency spillway, 10 and 25 year flood volumes, sediment storage volume, 60% sediment storage volume, primary outlet, decant elevation, and riser barrel junction.

Mr. Spillman was told of the information needed on the cross-section in order for the Division to determine if the pond is in compliance on December 11, 1984. When this material is submitted the abatement approval stipulation can be considered satisfied and the MRP technical analysis can be completed.

RECOMMENDATIONS

The request for the additional information on the cross-section was made to Mr. Spillman on December 11, 1986 verbally during an onsite visit. As of December 23, 1986 this information has still not been submitted. Because of this, the abatement approval stipulation and the MRP technical analysis cannot be completed. Therefore, it is recommended that Mr. Spillman be sent a letter requesting the additional cross section information. Additionally, it is recommended that another onsite visit by Division Hydrologists be performed in order to help SCCC place the boulders in Soldier Creek in a more acceptable configuration.

jvb
cc: W. Hedberg
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