



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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December 2, 1994

TO: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Senior Reclamation Hydrologist *SIF*

RE: Technical Analysis Update for LBA #9, Genwal Coal Company, Crandall Canyon Mine, ACT/015/032, September 23, 1994, Revised November 1994, Folder #2, Emery County, Utah

SUMMARY

The following discusses the Operator's response to the LBA stipulations 3,4, and 6. Recommended changes to the Technical Analysis ("T.A.") are identified. Changes to the T.A. are itemized below using redline and strikeout. These changes should be incorporated into H:LBARES.GEN.

ANALYSIS

STIPULATION #3

Analysis:

The Operator has resubmitted some pages from Appendix-7. Additional, copies will be presented, on request, for pages remaining illegible.

Finding:

The Operator is considered to have adequately addressed this stipulation.

STIPULATION #4

Analysis:

The Operator has not re-incorporated the wording from the previously approved document regarding the buffer zone variance, as specifically requested in the stipulation. Management should take the appropriate action to correct the changes.



The Operator has incorporated new wording in the latest revision. The new wording indicates that they will disturb the stream if necessary but, not without approval from the Division. The changes in wording item 9 **implies that an allowance to disturb the stream channel was considered in the approval of the buffer zone variance.** In fact, it was determined that the buffer zone be approvable only if the stream channel was not disturbed and impacts were minimized. My concern is that the intent of the original approval would be misinterpreted due to the Operator's wording and appearance of change in intent. Therefore, it is strongly recommended that the Operator be required to retain the original wording as previously stipulated.

Should management consider the operators response to be adequate the T.A. should reflect the information and intent included in the original approval and the operator should be required to remove the clarification "(Taken in it's entirety from 5/22/92 submittal on page 3-10)" as this is not a true statement. Also, the following changes must be incorporated into the TA.

**R645-301-731.600
(Paragraph 3 and 4)**

Stream Buffer Zones

The Operator has referenced **Section 3.23.400**, which identifies how impacts are minimized during construction activities. The Operator removed the original approved commitment Number 8 from the plan (last incorporated in the 5/4/1993 revision on pages 3-10 and 3-11) which states, "The Original stream channel will not be altered". ~~The original buffer zone allowance is based on the commitments made previously and should be retained as such.~~ The Operator has altered the previous commitment #8 as new commitment #9 to indicate that, "... if further (stream channel) disturbance is required, Genwal will not disturb the creek until approval is granted from DOGM." The Operator has not received additional buffer zone variances. At this time no additional changes in the original stream channel or original buffer zone are approved for mining and reclamation activities.

In the 1982 permit approval for construction activities and the details of the Operation plan as outlined under UMC 817.41-.56 of the MRP and the TA justified granting a variance to the 100-foot buffer zone requirements. It was determined that the buffer zone was approvable based on conditions and the information presented in the plan. Any future changes to the buffer-zone or re-disturbance would require an additional buffer zone variance approval.

Finding:

The Operator is not considered to meet the requirements of this stipulation directly. Management may take enforcement action, make a second request to the Operator or accept their response. If management considers the Operator's response to be adequate the T.A. should reflect the changes from the original approval and incorporate them into the TA.

STIPULATION #6

Analysis:

The Operator did commit to monitor surface materials according to the State Guidelines.

Unfortunately, stipulation #6 did not incorporate the intent outlined in my deficiency memo. Therefore, the Operator is still considered deficient in determining the acid or toxic nature of the coal. Inclusion of the data obtained for identification of acid and toxic forming materials found in coal which remains as underground pillars should be submitted. Because no specific date was included in the commitment to submit the data to the Division, a request to receive the results in the 1994 annual report should be made by the Division. Analysis, identification, and discussion in regard to the potential of post-mining water quality impacts should also be submitted. Should any spring or significant water source be intercepted by mining operations, acid and toxic forming materials, if found in the workings, could potentially affect water quality of the springs recharged by the mine area. Additionally, the springs currently discharging from the Blackhawk or springs which could develop discharge from the mined area following mine closure, could be affected by any identified acid and toxic forming materials.

The following changes to the T.A. are recommended.

Acid and Toxic (Last paragraph, last sentence.)

However, a recent discussion with Randy Gainer of Genwal indicated the samples were recently obtained and the Operator should submit results of this data with the upcoming 1994 annual report.

Deficiency:

- ~~1. The proposed method of analysis for acid and toxic constituents is not provided, therefore the Operator does not meet the requirements of R645-301-120, and R645-301-731. The plan must contain a commitment to monitor materials once a year at a minimum for acid and toxic materials.~~

Findings:

The Operator adequately responded to stipulation #6. The recommended changes to the T.A. should be completed by the Division.

THE FOLLOWING ARE ADDITIONAL RECOMMENDED CHANGES TO UPDATE THE EXISTING T.A.

**Subsidence Monitoring and Control Summary
(Third Paragraph)**

If it can be proven that mining related activities diminished flow in seeps and springs, the Operator will mitigate the damage. The mitigation will consist of installing guzzlers and other approved mitigation measures to replace water in quantity and quality.

**R645-301-724.200 Baseline Surface Water Information
(First Paragraph)**

Appendix 7-1 lists water rights in and adjacent to the permit area. Locations of surface water rights are on Plate 7-15. Surface water rights are summarized in Table 7-6. The name and location of streams are on the USGS topographic map used as a base for several plates in the proposed plan. The only impoundment and discharge into any surface-water body in the proposed permit and adjacent areas is the sediment pond and its discharge structures, points 001 and 002; the primary spillway and decant structures shown on Plate 7-5a. Any minewater discharge would occur through approved bypass or emergency bypass measures according to the UPDES permit.

**R645-301-728 Probable Hydrologic Consequences Determination ("PHC")
(Last Paragraph - 6th)**

There is some potential for impact to seeps and springs through subsidence. Seeps and springs and water rights have been identified. Genwal is monitoring flow rates and quality for the water rights within and adjacent to the current mine permit area. A commitment is made by the Operator to develop an alternate water source in coordination with the Division of Oil Gas and Mining, Division of Wild Life Resources, the State Engineer, and the U. S. Forest Service, in the event any water rights or springs/seeps are adversely affected by the mining operation or reclamation activities.

**Pond Designs
(Last sentence, last paragraph)**

In Section 7.42.22 the Operator commits to sample the thickness of the clay liner at 8 locations, if any holes penetrate less than 10 inches of clay additional clay will be compacted.

RECOMMENDATION

It is recommended that Management require the Operator to re-incorporate the original wording for buffer zone variance. Additional changes to the T.A., other than those identified in this memo, will be necessary if the Operator is requested to incorporate the original wording for the stream buffer zone variance. If management decides the operators response is adequate, then the recommended changes to the T.A. should be completed, and the operator should be required to remove the clarification "(Taken in it's entirety from 5/22/92 submittal on page 3-10)" as this is not a true statement. Please inform me of the decision so appropriate changes to the T.A. may be incorporated.

The Operator should be requested to incorporate the findings from the acid and toxic forming analysis of the coal data recently obtained in the upcoming 1994 annual report. Analysis, identification, and discussion in regard to the potential of post-mining water quality impacts based on the data obtained should be incorporated into the PHC by some defined date.

Stipulation 2, should not be considered adequate until an acceptance memo is received from the Forest Service. The existing Genwal Mining and Reclamation Plan "Work Copies" at the Division should be updated with the 8/30/94 and 10/31/94 submittals.

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