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May 27, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Steven M. Johnson, Reclamation Specialist *SMJ*

RE: Chapter 7 Revision, Canyon Fuel Company, SUFCO Mine, ACT/041/002-97A, File #2, Sevier County, Utah

SUMMARY:

Canyon Fuel has submitted an updated Chapter 7 (Hydrology) for the SUFCO mine. This amendment includes many changes to the surface-water portions of the baseline information, Probable Hydrologic Consequences (PHC), and monitoring plan. Changes are minimal in other areas of the plan.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Baseline Information
Surface-water Information

Analysis:

Surface water baseline information is discussed in Section 7.2.4. This information includes an analysis of data from before 1990 and since. Many of the data have been changed since the original submittal of the baseline information.

Findings:

The following deficiency exists in the surface water baseline information.

R645-301-724.200, The baseline surface-water descriptions will include information to describe baseline, rather than current, quality and quantity characteristics.

Probable Hydrologic Consequences (PHC) Determination

Analysis:

The PHC is contained in Section 7.2.8.3 and Appendix 7-17. Section 7.2.8.3 has been update but not changed greatly. Appendix 7-17 supplies a major revision to the overall PHC.

New information on pages 7-34 and 7-36 describe an increase flow in North Fork of Quitcupah Creek of up to 337 percent. This increase is due to mine discharge into the drainage. While the PHC addresses the possible effects of decreased flow in the creek, Canyon Fuel has not included information about potential channel degradation caused by increased flow. Problems such as changed habitat and channel erosion could occur with largely increased flow volumes.

Findings:

The following deficiency exists in the surface water portion of the PHC:

R645-301-728.333, Canyon Fuel must make a probable hydrologic consequences determination for increase surface water quantity under seasonal flow conditions.

OPERATIONAL PLAN

OPERATIONAL 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.

Surface-water Monitoring

Analysis:

The water monitoring plan is in Section 7.3.1.2 beginning on page 7-48 and in Tables 7-2 and 7-5. Canyon Fuel is proposing to drastically change the monitoring plan by eliminating many sites and change the collection protocol. Table 7-3 shows the different protocols. Canyon Fuel will continue to monitor six surface water stations; down from ten in the currently approved MRP. They do not discuss the reason for discontinuing monitoring of the four sites.

Findings:

The follow deficiency exists in the surface-water monitoring plan:

R645-301-731.220, Canyon Fuel must conduct surface-water monitoring in accordance with the plan approved under R645-301-731.220. Because there is an existing water monitoring plan Canyon Fuel must show cause for removed monitoring location and parameters from the surface-water monitoring plan.

RECOMMENDATION:

The amended surface-water baseline information and PHC for the SUFCO mine is deficient. Canyon Fuel must address these deficiencies before the amendment can be approved.