

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

August 23, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: Dana Dean, P.E., Senior Reclamation Hydrologist

RE: Reduce Laboratory Analysis, Canyon Fuel Company, Skyline Mine, C/007/0005, Task ID #2290

SUMMARY:

Canyon Fuel Company submitted an application to remove the laboratory analysis requirements at 21 water-monitoring sites (CS-1, CS-7, CS-8, CS-10, CS-16, CS-17, CS-18, VC-10, S13-2, S14-4, S15-3, S22-5, S22-11, S23-4, S24-12, S26-13, S34-12, S35-8, S36-12, 2-413, and 3-290). The application states that they have monitored the sites for 23 years, with no evidence of significant changes in parameter levels; and they no longer plan to mine in the areas near these sites.

The plan meets the minimum requirements of the regulations.

The Division should approve the plan, upon receipt of clean copies with the minor changes discussed below.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

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:

Groundwater Monitoring

The Permittee has met the requirements of R645-301-731.211 and 212 by including a ground-water monitoring plan based upon the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the permit application (Section 2.3.7 of the MRP). The plan provides for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses, and to the objectives for protection of the hydrologic balance. The Permittee outlines the quantity and quality parameters they will monitor, the sampling frequency, and site locations on Tables 2.3.7-1, 2.3.7-2, and 2.3.7-2A.

The Permittee will meet the requirements of R645-301-731.214 by continuing to monitor ground water throughout mining and during reclamation until bond release.

Consistent with the procedures of R645-303-220 through R645-303-228, the Division is allowing the modifications to the monitoring requirements, as requested in this application, since the Permittee has demonstrated, using the monitoring data obtained under R645-301-731.214 that:

- The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas;
- Prevented material damage to the hydrologic balance outside the permit area (at least as far as changes in water *quality* are concerned, the Permittee will continue to monitor water *quantity* at each of these sites since the Permittee and the Division are continuously analyzing the Electric Lake Situation); and
- Water quantity and quality are suitable to support approved postmining land uses.

Under R645-301-731, the Division will require additional monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Those measures are to monitor the 13 springs (S13-2, S14-4, S15-3, S22-5, S22-11, S23-4, S24-12, S26-13, S34-12, S35-8, S36-12, 2-413, and 3-290) for the currently required laboratory parameters at high and low flow (where accessible) once every five years (2010, 2015, etc.), and whenever abrupt changes in flow occur.

Surface Water Monitoring

The Permittee has met the requirements of R645-301-731.221, 222, and 223 by including a surface-water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application (Section 2.4.4 of the MRP). The plan provides for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses, and to the objectives for protection of the hydrologic balance, as well as the effluent limitations found in R645-301-751. The plan identifies the surface water quantity and quality parameters to be monitored, sampling frequency and site locations on Tables 2.3.7-1 through 2.3.7-2A.

The Permittee will meet the requirements of R645-301-731.224 by continuing to monitor surface water throughout mining and during reclamation until bond release.

Consistent with R645-303-220 through R645-303-228, the Division is allowing the modifications to the monitoring requirements, as requested in this application, since the Permittee has demonstrated, using the monitoring data obtained under R645-301-731.224 that:

- The Permittee has minimized disturbance to the hydrologic balance in the permit and adjacent areas;
- Prevented material damage to the hydrologic balance outside the permit area (at least as far as changes in water *quality* are concerned, the Permittee will continue to monitor water *quantity* at each of these sites since the Permittee and the Division are continuously analyzing the Electric Lake Situation);
- Water quantity and quality are suitable to support approved postmining land uses.

Under R645-301-731, the Division will require additional monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Those measures are to monitor the 8 stream sites (CS-1, CS-7, CS-8, CS-10, CS-16, CS-17, CS-18, and VC-10) for the currently required laboratory parameters at high and low flow (where accessible) once every five years (2010, 2015, etc.), and whenever abrupt changes in flow occur.

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Findings:

The application meets the minimum requirements of the Operation Plan, Hydrologic Information sections of the regulations.

RECOMMENDATIONS:

The Division should approve the plan, provided the Permittee commits to monitor for the currently required laboratory parameters at sites CS-1, CS-7, CS-8, CS-10, CS-16, CS-17, CS-18, VC-10, S13-2, S14-4, S15-3, S22-5, S22-11, S23-4, S24-12, S26-13, S34-12, S35-8, S36-12, 2-413, and 3-290; at high and low flow (where accessible) once every five years (2010, 2015, etc.), and whenever abrupt changes in flow occur.