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TO: Internal Files

FROM: Michael J. Suflita, Sr. Reclamation Specialist/ Hydrology *MJS*

RE: Slurry Pumping Underground, Canyon Fuel Company, LLC, Skyline Mine, C/007/005-AM01D-1

SUMMARY:

On June 22, 2001, the Division received amendment AM01D. The amendment is to change the routing of conveyor washdown water and coal fines from going to the sediment pond to being routed underground. On August 9, 2001 the Division sent a Technical Analysis containing deficiencies. On October 18, 2001 the Division received a revised submittal. This Technical Memo is a review of the Hydrologic aspects of that latest submittal. There are no deficiencies.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis

The Utah Coal Rules require the following:

- 731.500. Discharges.
- 731.510. Discharges into an underground mine.

TECHNICAL MEMO

- 731.511. Discharges into an underground mine are prohibited, unless specifically approved by the Division after a demonstration that the discharge will:
 - 731.511.1. Minimize disturbance to the hydrologic balance on the permit area, prevent material damage outside the permit area and otherwise eliminate public hazards resulting from coal mining and reclamation operations;
 - 731.511.2. Not result in a violation of applicable water quality standards or effluent limitations;
 - 731.511.3. Be at a known rate and quality which will meet the effluent limitations of R645-301-751 for pH and total suspended solids, except that the pH and total suspended solids limitations may be exceeded, if approved by the Division; and
 - 731.511.4. Meet with the approval of MSHA.
- 731.512. Discharges will be limited to the following:
 - 731.512.1. Water;
 - 731.512.2. Coal processing waste;

As a regular part of the operation, the coal conveyor areas are washed down with water to prevent coal dust buildup. This washdown keeps the dust from accumulating and becoming a fire hazard. Three buildings have existing sumps that collect the dust-laden washdown water. Buildings BC-4 and BC-20, on the upper bench, and the Crusher Building, on the lower bench, all have the same type system. The water that overflows from the sumps drains to the sediment pond where the coal fines settle out. These coal fines account for an estimated 90 % of the sediment pond loading. The material cleaned out from the sed pond is about 90 % coal and has about 8,400 BTU per pound. The material is blended back into regular coal product for sale from the mine.

This amendment proposes to revise both systems to pump the sump water, along with some of the coal fines, back underground. After initial settling of the coarse coal fines, the water would be pumped out of the sumps for about one hour each day. An estimated 9,000 gallons would be pumped each day, seven days per week. Annually, that amounts to 3.285 million gallons. The water from the Crusher Building would be pumped to an underground sump in Mine No. 3, Level 3 where the fines will settle out and the clarified water becomes part of the underground water handling system. The water from BC-4 and BC-20 would be pumped to Mine No. 3, Level 2 where again, the fines would settle out and the clarified water becomes part of the underground water handling system. In this latter case the sump would be to the recently constructed 54 million gallon sump in 15L and 16L. Water samples will be taken weekly to ensure compliance with UPDES permit requirements. A map shows the underground locations of the discharge points.

Water for pumping is obtained from the fire water line that comes from the 300,000 gallon storage tank. That water is derived from underground workings via pipeline. The water and coal fines slurry from the sumps will be pumped via enclosed polyethylene pipelines with

no other inputs or outputs. Thus, water that is derived underground will be pumped back underground. Similarly, coal fines derived from underground will be returned underground. This proposed amendment would improve the sediment pond performance by reducing the sediment load substantially.

The Coal Rules require that discharges into an underground mine, "Meet with the approval of MSHA". The amendment contains an October 10, 2001 letter from MSHA approving the proposed plan described above. The Coal Rules also limit discharges to, among other things, water and coal processing waste and this proposed action conforms to those limitations.

Findings

Information provided in the proposed amendment is considered adequate to meet the requirements of this section.

RECOMMENDATIONS:

The amendment can be approved in its present form.