File ACT/015/015 #2

Consolidation Coal Company
Mid-Continent Region
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October 3, 1989

Ms. Susan C. Linner
Reclamation Biologist/Permit Supervisor
Utah Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

Dear Ms. Linner:

Re: Deficiencies, contained in Division letter of August 7, 1989, concerning our permit amendment application for new portals at the Emery Deep Mine.

Prior to any possible modification of this submittal, there are a number of issues contained in your deficiency letter that we disagree with very strongly. They concern the comments of all three reviewers.

Concerning the hydrology review, the following points have to be made. The sedimentation control was designed by Craig Plumley, of our office, in consultation with Rick Summers of the Division. We specifically used all of his recommendations in an attempt to eliminate deficiency statements. As recommended by the Division, runoff collection berms were designed around the perimeter of the rock excavation stockpiles to divert runoff to the lowest point behind the berm. Due to the small precipitation amount associated with the design storm and the small drainage area of the stockpile, the flow behind the berm will be minimal. In addition, the stockpile and berm will be constructed of excavated sandstone which should mitigate erosion concerns. However, to insure that the berms are sufficiently sized, detailed calculations were provided to demonstrate that the berms provide a sufficient cross-sectional area to intercept the total design storm runoff. The proposed containment cells are located at the lowest point behind the berm and are designed to provide full containment of the design storm runoff, as recommended. Finally, silt fences downstream from the overflow spillway of the containment cells are provided as additional sediment control. By maintaining this proposed and Division recommended sediment control plan, minimal surface disturbance is performed while maintaining adequate sediment control. Demanding further disturbance for sediment ponds based on an arbitrary "15%" policy is neither practical nor necessary. Our design work was based on minimal areal disturbance, and will remain so. In addition, the number of actual acres disturbed is

not a particularly vital statistic at this point, since we are bonded for 250. In response to comments on the diversion ditch calculations, the peak discharge of 103.3 cfs as derived in the previous submittal is appropriate. As illustrated on the Drainage Area Map (Plate 13-30), the Average Land Slope and Average Channel Slope are both approximately 4%. The peak discharge of 194.25 cfs suggested by the Division would require an average land slope of approximately 20%, which does not correspond with the Drainage Area Map. This proposed diversion ditch will be excavated through the existing sandstone bedrock, as illustrated in the Diversion Ditch Profile (Figure 13-1). Therefore, the sideslopes of the proposed ditch will also consist of erosive resistant sandstone which will provide a stable channel, without requiring additional protection. This proposed diversion ditch is to be located in an alignment with the existing streams so as to minimize the flow transition. The slope of the diversion is relatively flat which minimizes the flow velocity through the ditch. This low exit velocity and smooth transition from the proposed ditch to the receiving stream will eliminate the need for an energy dissipator at the outlet of the proposed ditch. The inlet of the proposed diversion will be diverted by the rock stockpile which will consist of the excavated sandstone and will provide excellent inlet protection. In addition, the flat slope and sandstone lining of the proposed diversion will certainly mitigate erosion problems.

As to the portal cut, we offer the following comments. The angle of repose for broken rock is 1:1 and in fact can be even steeper. Side slopes do not need to be reduced and have no bearing on ease of construction or maintenance. The portal cut itself is clearly shown to be in solid rock. MSHA requirements speak to "prudent engineering design". This portal facility is not a complicated installation and we can assure the Division that the highwall slopes, including the safety berm, will certainly be stable. We have the necessary engineering talent and experience to ensure proper design and construction. In the area of backfilling and sealing the portals, it must be remembered that the entries are 70 feet below ground level. Also, the seam dips steeply downward from there. Pushing material a further 25 feet into the entries makes no sense whatever. In addition, this kind of a drop will compact the material very effectively. Bulldozing the material back into the cut will effectively result in a final swell factor of 10-15%. This will produce a slight mounding of the area of $1\frac{1}{2}$-$2\frac{1}{2}$ feet. Given the geologic structure of this property, water cannot possibly flow out of these entries. The permanent stream diversion, the very low levels of rainfall in the area, and complete backfilling of the portal cut combine to ensure that significant amounts of water will not flow into these reclaimed openings. All of this information is contained in the permit.

The soils review also requires comment. A careful review of our submission would show that the interval of concern is in fact the coal seam, of which the top 11 feet will be removed through the underground works. None of this material will report to the surface stockpile. In the area of waste disposal, UMC 784.13(b) refers to the permit area overall and UMC 817.48 contains the phrase "if any". Waste disposal for the mine has been covered in a previous submittal, and this amendment went to great lengths to show that acid and toxic forming materials will not be a problem at this site. As for topsoil storage, a seed mixture for "temporary and contemporaneous reclamation" was included in the June 23, 1983 ACR responses and naturally would be applied to this stockpile. In the light of previous submittals, we can specify a 3 ft. berm around the topsoil stockpile, which would be more than sufficient for runoff control. It is highly doubtful that the sandstone excavation stockpiles will be subject to wind erosion during their lifetime. In addition, we know of no reasonable way to vegetate these sandstone stockpiles.

In conclusion, we do not agree that the submission was deficient to anywhere near the extent indicated by the Division's reviewers. We look to clearing up this problem as soon as possible.

Sincerely,

William J. Dunn
Senior Engineer

/vms