0058

INCOMING
C0070001

Fax Cover Page

TO: Division of Oil, Gas, & Mining - Coal
Daron Haddock ✓
Dana Dean ✓
Priscilla Burton ✓ #(801)359-3940

FR: Gregg Galecki
280-4531

Number of Pages including cover:

3

RECEIVED
AUG 27 2003
DIV. OF OIL, GAS & MINING

August 27, 2003

TO: File

THRU: Daron R. Haddock, Permit Supervisor

FROM: Gregg A. Galecki, Hydrologist

RE: Lodestar - White Oak Reclamation submittal received from Stittes & Harbison, PLLC on August 21, 2003

Since the proposal is not being reviewed as a normal reclamation plan based on the State R645 regulations, the following are major items that likely need to be addressed to help provide a clear understanding of the proposed activities. The cited items are hydrologic items necessary for adequate drainage at the site.

- A map/drawing illustrating where natural stream restoration and rip-rap channels are going to be installed. It is hard to tell from the text exactly where these are going to be located.

- Task 6 Area D Backfilling - describes a geotextile and rip rap channel, and according to topography no drainage is needed.

- Task 7 Area E Backfilling - describes a rip rap channel at the "intersection of Area E backfill and the Area D drainage channel", and according to the topography no drainage is needed. An explanation of the text is necessary.

- The proposal should include a drawing illustrating the proposed sizing of the rip-rap channels (figures are available in the existing MRP, but need to be included to ensure the contractor conducting the reclamation is constructing adequately). The drawing should also illustrate the general size of the proposed rip-rap to be used.

- Task 9 Whiskey Creek Reclamation – indicates clay material critical for the stream restoration "will be removed from the clay borrow area in the southwest portion of the mine." Is this material located in Area D? In the order of the tasks as described, the pit areas have already been backfilled and the material would no longer be accessible (assuming the material exists). There should be an understanding that clay material needs to be excavated and 'stored on site'. This activity was outlined in the original surface mining operation but never conducted.

- Task 9 describes a 4-5 foot wide clay layer. This width should be widened to 6-8 feet in the steep areas and 10-15 feet wide in all other areas. Considering the original channel was a minimum of 9-inches wide and extended up to 2-feet wide with meanders, the clay liner needs to be wide enough to accommodate a margin-of-error for channel placement, enough room to install drop pools and other energy-

dissipating structures in the channel, and allow nominal room for the new channel to migrate.

- Task 9 should have parameters set up such as maximum grade and frequency/height of drop structures to help ensure the quality of the installation.

- Task 9 – The interface between the undisturbed stream channel and the restored stream channel is critical to help insure flow is not immediately lost into the fill. Figure SRP-2 clearly illustrates how the underlying clay from the restored channel needs to be keyed into the undisturbed material.

- Task 9 (last paragraph) describes an "on bench pond" or pool. Clarification is needed to understand where this is located and what it is exactly. It sounds like an uncontrolled ponding of water or temporary sedimentation pond. This pond should likely be omitted or at a minimum better described.

The items outlined above are primarily available in the existing MRP, but they should be 'resurrected' to ensure they are implemented. Volume 1 of the MRP contains the approved Stream Restoration Plan. Significant time was spent by Lodestar characterizing the stream channel that was destroyed, and the information provided in the Restoration Plan provides valueable information for adequate reconstruction. Implementing the highlights of the plan will not increase costs, but increase the likelihood of constructing a stable channel where flow is not interrupted. Of particular interest are the photos on pages SRP-8, SRP-10, SRP-13, and Figures SRP-1 and SRP-2. As an example, the maximum grade of the restored channel in the MRP had a 175-foot section of 35 percent grade, 16-inch wide channel, and drop structures every 7-10 feet. I know we are not going to get this detail, but some parameters are necessary. Otherwise, the Division could be set up for a straight V-shaped channel with just brush piled randomly.

Rip-rap channel design and sizing is available in the MRP (didn't have time to cite figures, but I saw them). In my experience, it is easier to outline these details initially (make sure everyone is on the 'same page'), than to try to implement them done when the contractor is on the ground.