

June 30, 2003

TO: Internal File

THRU: Priscilla Burton, Environmental Scientist and Team Lead

FROM: James D. Smith, Environmental Scientist

RE: Stockpile area, Andalex Resources, Inc., Wildcat Loadout, C/007/033 – AM03A

SUMMARY:

Andalex Resources, Inc. has submitted this amendment to expand the West Ridge “A2,B” coal stockpile at the Wildcat Loadout. The expansion will provide additional space for coal storage, which Andalex says is needed. It will also allow some reduction in the height of the pile, which might reduce the amount of coal being blown from the pile. This expansion will be within the currently permitted and bonded area, but will disturb an additional 0.92 acre.

ASCAs currently provide sediment control for the area that will be affected. The expanded pile will report to Sedimentation Pond B. This pond is not currently sized adequately to handle the additional sediment and will require modification.

Division personnel visited the Wildcat Loadout on February 26, 2003 to become familiar with this area and the proposed expansion. Mike Glasson represented Andalex, and Dan Guy of Blackhawk Engineering was also there.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

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:

Sediment Control Measures

Part of the area that is now treated by ASCAs will report to Sedimentation Pond B. The area of ASCA 3 will be reduced by 0.80 acre and that of ASCA 4 by 0.12 acre (Table IV-15)..

Siltation Structures: Sedimentation Ponds

Runoff to Pond B from the expanded area was recalculated by the Permittee using the SCS-TR55 method. The Division used code STORM (from OSMRE) to check the values, and obtained a reasonable match for runoff volumes.

The Permittee determined Peak Flow using a chart from a standard reference source (page 95). Peak flow is directly proportional to the drainage area, and the peak flow values given in Tables IV-2 and -3 have not been recalculated using the larger area reporting to Pond B.

Sediment yield has been determined using the Universal Soil Loss Equation (USLE), developed by the SCS/NRCS. Calculated Sediment Yield for the enlarged Pond B drainage is 0.008 acre-feet/yr and 0.025 acre-feet/3-yrs (Table IV-4).

The Required Volume for Pond B will be 0.304 acre-feet (revised Table IV-6). The cover letter states that Pond B is adequate to contain the additional runoff; however, the Actual Pond Volume as only 0.310 acre-feet (current Table IV-6). Revised Table IV-6 indicates Pond B will be enlarged to an Actual Pond Volume of 0.464 acre-feet, leaving 0.160 acre-feet Excess Capacity. The proposal does not indicate how Pond B will be enlarged.

Findings:

The information provided does not meet the minimum requirements for Coal Processing Plants Not Located Within the Permit Area of a Mine. Prior to approval, the Permittee must provide the following, in accordance with:

R645-302-263 and R645-301-711.300, The Permittee needs to recalculate peak runoff to Pond B for the larger drainage area.

R645-302-263, 264.220 and R645-301-711.300, 733.100, 741, The Permittee needs to submit plans for enlarging Pond B to a volume of 0.464 acre-feet.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The CHIA was prepared in 1989. This amendment does not require an update of the CHIA.

Surface-water flow in the drainages is intermittent, the result of storm runoff or snowmelt. The few samples obtained from these infrequent, sporadic flows have contained TSS over 1,000 mg/L and TDS generally under 600 mg/L.

DMRs indicate that the sedimentation ponds have never discharged. Acid-base potential and leachate tests of coal and refuse have not indicated reasons to be concerned about contamination in runoff from the site, but this testing has not been consistent.

The MRP and CHIA mention a spring at the alluvium - Mancos Shale contact in Garley Canyon, roughly a half-mile southwest of the Wildcat Loadout and 1,400 feet outside the CIA. The location of this spring is shown on Figure III-2 in the MRP. Recharge is probably from adjacent alluvial terraces. Reported flow was approximately 5 gpm. Andalex holds a water right on the spring, the water potentially to be for dust suppression at the Wildcat Loadout. Water quality has not been routinely monitored, but the quality was analyzed for the water-right application: TDS was 7,850 mg/L, total alkalinity was 322 mg/L, and sulfate and sodium were the main ionic constituents.

In the Wildcat Loadout permit area, two boreholes were drilled down to 60 feet and found no ground water. No part of the Wildcat Loadout disturbed area drains to Garley Canyon.

TECHNICAL MEMO

Because of the spring's location relative to the CIA, to the disturbed area, and to the coal pile and Pond B in particular, no impact to the spring is expected from this modification of the loadout, or from loadout operations in general.

Findings:

The current CHIA is adequate to determine if there will be material damage to the hydrologic balance outside the permit area.

RECOMMENDATIONS:

The proposed Wildcat Loadout Stockpile Area amendment should not be approved at this time. Several deficiencies need to be adequately addressed before this amendment can be approved.