

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

February 10, 2005

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor

THRU: Priscilla Burton, Team Lead

FROM: James D. Smith, Environmental Specialist

RE: MRP Rewrite, Andalex Resources Inc., Wildcat Loadout, C/007/0033, Task ID #2089

SUMMARY:

Andalex originally applied for a mining permit for the Wildcat Loadout in 1988. The currently approved permit is formatted and organized to match the Coal Mining Rules that were in effect at that time.

The amendment mainly reorganizes information in the Wildcat Loadout MRP so that it more closely matches the format and organization of the current R645 Coal Mining Rules. Some appendices and maps have been updated.

The Division first received this proposed amendment April 8, 2004. Deficiencies in the reorganized mine plan were identified in the TA dated September 1, 2004. The Permittee revised the plan to respond to those deficiencies, and the Division received that revision on December 16, 2004. Although there are comments on items not related to the reorganization of the mine plan, the Findings of this Technical Memo do not include deficiencies that do not relate directly to the reformatting.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Analysis:

Section R645-301-724.400 of the revised MRP contains baseline Climatological Resource Information on seasonal precipitation, temperature, and speed and direction of the prevailing wind. Data are from the Western Regional Climate Center, Reno, Nevada. Information in Tables VII-1, VII-3, VII-4, VII-5, and VII-6 from the current MRP have been replaced with Table VII-1, which summarizes monthly temperature and precipitation data from September 1968 to June 2004. Table VII-2 gives “design storm” intensity, duration, and frequency-of-return information. The new Tables VII-3 and VII-4 give, respectively, wind direction and speed. Wind data are for the period 1992-2002.

Findings:

Climatological Resource Information in the reformatted MRP is sufficient to meet the requirements of the Coal Mining Rules.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

It appears geologic information under R645-301-611.100. GEOLOGY WITHIN AND ADJACENT TO THE PERMIT AREA is taken verbatim from section UMC 783.14 Geology Description of the current MRP.

Findings:

Geologic Resource Information in the reformatted MRP is sufficient to meet the requirements of the Coal Mining Rules.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

UMC 783.13 Description of Hydrology and Geology: General Requirements in Chapter III of the current MRP is under 711.100 in the reformatted MRP. The sedimentation and control plan, including impoundments, diversions and water monitoring plans are discussed in the Engineering Chapter 5 under 512.240: information in section 512.240 was taken from UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams, and Embankments.

The plan states, "The spring/seep in Garley Canyon is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, Township 13 South, Range 9 East, S.L.B.M., approximately $\frac{3}{4}$ miles southwest of the loadout facility, as shown on Figure 111-2" (p. 7-2). There is no Figure III-2 that shows the location of the Garley Canyon Spring; this is perhaps a typo and the reference should be to Figure VII-2.

Figures showing details of diversion design, the culvert nomograph, pond outlet protection, emergency spillways, ditch configurations, and riprap sizing are in the reformatted MRP. Figures have been renumbered, and page numbers in the Table of Contents now match the page locations of the figures in the plan.

Alternative Water Supply Information

The information in UMC 7873.17 Alternative Water Supply Information is in the reformatted MRP under section 727.

Sampling and Analysis

Section 723 refers to Section 512.240 for information on Sampling and Analysis. The water-monitoring plan is outlined in 512.240, but there is neither mention of nor commitment to follow the "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434.

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Baseline Information

Baseline surface-water quality information is described in Appendix J and Appendix M, and Section R645-301-512.240 contains the water-monitoring plan. This site is very dry and most water-quality or -quantity reports indicate “no flow”.

Baseline Cumulative Impact Area Information

The Division prepared a CHIA in 1989 and there has been no update. The proposed amendment makes no changes that require the CHIA be redone.

Modeling

No modeling was done for the Wildcat Loadout MRP.

Probable Hydrologic Consequences Determination

The PHC determination is in Appendix J. The effects of mine operation on surface and ground water are briefly discussed in section R645-301-711.100.

Groundwater Monitoring Plan

Section 731.211 refers to Section 711.100 as the location for the ground-water monitoring plan. Information in 711.100 indicates that drilling on the site confirmed that no ground water is present, so ground water is not monitored for this operation.

Surface-Water Monitoring Plan

Section R645-301-731.211 refers to 512.240 as the location for the water-monitoring plan. The monitoring plan there is the same as in the current MRP.

Section 722.300 refers to Section 712.240 as the location for information on Monitoring Stations, but there is no Section R645-301-712.240 in the current or revised MRP. Locations are shown on Plate 15.

Findings:

R645-301-121.200, The Permittee must clarify the reference to Figure III-2 on page 7-2. There is no Figure III-2.

R645-301-722.300, The Permittee needs to clarify the location of information on Monitoring Stations: there is no Section R645-301-712.240 in the current or revised MRP.

R645-301-723, The Permittee needs to commit to follow the "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434.

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:

General

The sedimentation and control plan, including impoundments, diversions and water monitoring plans are discussed in the Engineering Chapter 5 under Section R645-301-512.240. R645-301-731 refers to R645-301-511.100 for General Hydrologic Operation Information. The discussion of Reclamation Hydrology begins on page 5-65.

Ground Groundwater Monitoring Plan

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Acid- and Toxic-Forming Materials and Underground Development Waste

There is no underground development waste at this site. The plan for dealing with potential acid- and toxic-forming materials is on page 7-6. Further information is found in 528.300 on page 5-113.

Transfer of Wells

No transfer of wells has taken place, nor is any transfer anticipated (page 7-27).

Discharges Into An Underground Mine

N/A

Gravity Discharges From Underground Mines

N/A

Water-Quality Standards And Effluent Limitations

In Section R645-301-751 the Permittee commits that discharges or water from areas disturbed by coal processing and reclamation operations will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the USEPA set forth in 40 CFR Part 434.

A copy of the NPDES permit is in Appendix K. It became effective on May 1, 2003 and expires April 30, 2008.

Diversions: General

Section R645-301-742.310 refers to 512.240 as the location for general information on diversions. The discussion of diversions begins on page 7-38.

Diversions: Perennial and Intermittent Streams

All drainages within and adjacent to the permit area are ephemeral. There are no perennial or intermittent streams.

Diversions: Miscellaneous Flows

Under the definitions of the Coal Mining Rules, all flows at the Wildcat Loadout are miscellaneous. All impoundments and diversions are discussed in 512.240.

Stream Buffer Zones

As there are no perennial or intermittent streams, this section of the Coal Mining Rules does not apply to then Wildcat Loadout.

Sediment Control Measures

There are six sedimentation ponds and seven ASCAs at the Wildcat Loadout.

Siltation Structures: General

ASCAs are discussed on pages 5-8 and 5-62 of 512.240. Design and operation of the sedimentation ponds are discussed on pages 5-9 through 5-27.

Siltation Structures: Sedimentation Ponds

Design and operation of the sedimentation ponds are discussed on pages 5-9 through 5-27.

Siltation Structures: Other Treatment Facilities

There are no Other Treatment Facilities at the Wildcat Loadout.

Siltation Structures: Exemptions

There are no exemptions to the requirements for Siltation Structures in the Wildcat Loadout MRP.

Discharge Structures

Control of discharge from impoundments, sedimentation ponds, culverts, and diversions is discussed in section 512.240, particularly on pages 10 and 36 - 61. Sediment Pond Outlet Protection is shown on Figure V-2A.

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Impoundments

There is a 2-celled pond called the Permanent Impoundment. Design and construction are described on Plate 18 and in 512.240, particularly pages 5-8 through 5-9, 5-26 through 5-28, 5-35 through 5-36 and 5-65.

Ponds, Impoundments, Banks, Dams, and Embankments

There are no coal processing banks, dams, or embankments. Design, construction, and maintenance of embankments that were built as part of roads and sedimentation ponds are described in sections discussing those structures.

Findings:

R645-301-723, The Permittee needs to clarify the location of information on Monitoring Stations under 722.300.

RECOMMENDATIONS:

The proposed amendment should not be approved until the Permittee has adequately addressed the deficiencies identified in this Technical Memo.