

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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July 26, 2004

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TO: *WB* Priscilla W. Burton, Environmental Scientist III/Soils, Team Lead

FROM: Peter H. Hess, Environmental Scientist III/Engineering *PHH by an*

RE: Reformatting of Wildcat Mining and Reclamation Plan, Andalex Resources, Inc.,  
Wildcat Loadout, C/007/033, Task ID #1911

## TECHNICAL ANALYSIS:

## OPERATION PLAN

### AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

#### Analysis:

Regulation **R645-301-423** contains the requirement "the application will contain an air pollution control plan which includes the following":

**-423.200.....** "A plan for fugitive dust control practices as required under R645-301-244.100 and R645-301-244.300. Task ID #1911 which was received on April 8, 2004, discusses **AIR QUALITY** in Chapter 4, page 4-8, section **R645-301-420**. Proposed Controls states the following; "the only changes in air quality will be attributable to minor road dust. Methods of control are spray systems, chemical treatment, and enclosures. Please see approval order for a description of control measures in Appendix B."

An examination of Appendix B of the current mining and reclamation plan contains a "new" air quality approval order for the Wildcat site, (DAQE-005-00) which was approved by the Utah DEQ, Division of Air Quality on January 5, 2000. DAQE—005-00 modified DAQE-998-96 to increase the stockpile area (surface acreage increase from 12.5 acres to 16.5 acres) as

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well as the volume of diesel fuel consumption (60 million gallons to 80 million gallons, *See Abstract*) for the loading facility. The new approval order was incorporated into the mining and reclamation plan via Division process on June 1, 2004.

Visible emissions, including fugitive dust emissions from haul road traffic are discussed on page 3, item number 6. "Visible fugitive dust emissions from haul road traffic and mobile equipment in operational shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made is at 15 second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the executive secretary or the executive secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value."

Page 4 of DAQE-005-00, **Roads and Fugitive Dust**, item 10, establishes the following dust control specifications for the haul roads in the Wildcat Loadout permit area; "All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. The application of water or chemical treatment shall be used. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp / moist condition or unless it is below freezing. The opacity shall not exceed 20% during all times the areas are in use. If chemical treatment is to be used, the plan must be approved by the executive secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation.

Specifications regarding the record keeping of the aforementioned treatments follow the above information, and include date, number of treatments made, time of day treatment was made, etc. These are adequate, but the DAQ air quality approval order makes continuous reference to the executive secretary or the executive secretary's representative. **This document appears to remove all regulatory authority relative to the control of fugitive dust emissions from Utah Division of Oil, Gas and Mining inspection personnel.**

Utah Division of Air Quality personnel makes approximately one visit per annum, and that inspection generally involves an evaluation of coal dust emissions from a conveyor transfer / stockpile perspective. A completed inspection form is kept in the records of the permittee. An inspection of the haul roads is not made, or at least not documented relative to fugitive dust concentrations. This annual inspection by Air Quality personnel is in the opinion of this reclamation specialist inadequate to ensure that haul roads are being maintained relative to the control of fugitive dust. Control of fugitive dust is not only important from the perspective of protecting employees from excessive dust concentrations, but also from the perspective of protecting topsoil resources and wildlife in the area.

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The Air Quality Approval Order refers to “unpaved roads” and other “unpaved operational” areas that are used by mobile equipment. This is unclear and leaves room for uncertainty, as exactly what definition is used to determine what constitutes a “paved” road is unclear. A graveled road is technically paved, yet fugitive dust can still be thrown into suspension by vehicular traffic. Additional treatment is necessary to minimize fugitive dust in order to meet Federal dust control standards for surface mining areas. The permittee frequently places magnesium chloride on primary haul roads that are utilized by heavy truck traffic. As to whether this is considered “paving” is unclear.

As noted elsewhere in this document, the Air Quality Approval Order has been incorporated into the Wildcat MRP, effective June 1, 2004. In order to meet the requirements of R645-301-423.200, the permittee must submit the specific controls established on page 3, item number 6, paragraph two, as well as the fugitive dust controls described under **Roads and Fugitive Dust**, page 4, item # 10 of the current DAQ Air Quality Approval Order for approval and incorporation into the Wildcat mining and reclamation plan. Any references to regulatory authority by the DAQ’s executive secretary or executive secretary’s representative should be deleted due to the fact that it is believed that **R645-301-423.200** gives regulatory authority to Division personnel regarding control of fugitive dust on DOGM permitted sites.

Section R645-301-424, FUGITIVE DUST CONTROL – SURFACE COAL MINING AND RECLAMATION OPERATIONS LESS THAN 1,000,000 TONS PER YEAR, found on page 4-10 indicates that this regulation is not applicable because the throughput of coal at the storage / loading facility is greater than 1,000,000 tons per year.

Similarly, **R645-301-425, AIR QUALITY MONITORING- SURFACE COAL MINING AND RECLAMATION OPERATIONS LESS THEN 1,000,000 TONS PER YEAR** found on page 4-10 is not applicable because of the volume of coal being put through the Wildcat facility (> 1,000,000 tons per year).

**Findings:**

The reformatted version of the Wildcat mining and reclamation plan is inadequate in that it does not contain “a plan for fugitive dust control practices as required under R645-301-244.100”. The plan that is currently in place is only enforceable by DAQ inspection personnel. The control methods which have been established by the DAQ air quality approval order must be submitted as a separate amendment to the mining and reclamation plan, such that these same specifications are enforceable by DOGM inspection personnel.

**RECOMMENDATIONS:**

The MRP is deficient relative to the fugitive dust control plan. Do not recommend approval.