



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

February 8, 1999

TO: Pamela Grubaugh-Littig, Permit Supervisor *agl*

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: Paul Baker, Reclamation Biologist *PB*
Robert Davidson, Reclamation Soils Specialist *RAD*

RE: Wellington Bond Release, Nevada Electric Investment Company, Wellington Preparation Plant, ACT/007/012-98BR, File #2, Carbon County, Utah

SUMMARY OF DEFICIENCIES

R645-301-120, 1) Provide current information for paragraphs in section 1.00 on page 6 and, section 4.12 page 3. 2) Illustrate the disturbed permit area boundaries, proposed disturbed boundaries and permit boundary changes clearly on G9-3511. 3) Provide the amendment in redline strike out format. 4) Map No. 412.01 may more appropriately be named Bond Release Map to describe its content. 5) A north arrow is needed on Map F9-177, 1 of 2.

R645-301-553.252, R645-301-232.200 and R645-301-233, The proposed Borrow Area I does not meet the Division's criteria as the source for **best available material** (substitute topsoil) **within the permit area**. Soil suitability must be **demonstrated** to the Division to clearly show that the resulting soil medium is equal to, or more suitable for sustaining vegetation than the existing Greybull soil series located in borrow Area H.

R645-301-330 (including 331 and 333), R645-301-341.300, In order to achieve successful reclamation of lands affected by coal mining activities, use of the proposed soil borrow (Area I) needs to be in accordance with state regulations to **minimize surface disturbance** and to **disturb the smallest practicable area**. Greenhouse studies, field trials, or equivalent methods are needed for soil borrow Area H and proposed Area I to **demonstrate** that revegetation is feasible to minimize surface erosion.

R645-301-542.400, The applicant must either state why the sand hopper and concrete structure in the auxiliary pond are needed for the postmining land use or commit to remove the structures before bond release.

R645-301-413, The application needs to discuss how all facilities to remain after reclamation

Wellington Postmining Land Use Change/Bond Release

ACT/007/012-BR97

February 8, 1999

Page 2

would be used for the proposed postmining land use. This has been done for the track and coal hopper, but the application does not discuss the usefulness of the sand hopper, the foundation of the pumphouse over the auxiliary pond, or the three sediment ponds.

R645-301-413, The application needs to address safety concerns at the track hopper.

R645-301-740, The applicant needs to show how reclamation standards will be achieved for ditch UD-1 and Watershed 5.

R645-301-552, The backfilling and grading plan for the area west of the Price River must be revised so that it is consistent with the approved postmining land use change.

R645-301-553.250, The applicant must address how the requirements of R645-301-553.250 will be addressed for all coal mine waste in the proposed railroad load out area.

R645-301-542.730 and R645-301-553.250 - The coal mine waste located at the Main Plant area must be sampled for its BTU rating and acid/toxic properties to allow the Division to debate its final disposition.

R645-301-880.330, The application for bond release needs to assess impacts to ground and surface water in the permit and adjacent area based on performance standards and demonstrate through water monitoring data analysis that the operations minimized disturbance to the hydrologic balance in the permit and adjacent areas. The applicant also needs to show that seasonal water quality and quantity are suitable for the post mining land uses, include analyses that show whether the coal mine waste in the proposed train load out is acid or toxic forming, and provide a full baseline suite for water at the trackhopper to show that water quality meets state water quality standards.

R645-301-740, 1) Clearly show the final reclamation configuration including those structures proposed for retention as part of the post mining land use. 2) Include the berm within the permit area to provide an inspectable unit. 3) Provide a plan for regrading the berm at final bond release and show how the existing reclamation for the UD- 1 ditch and Watershed 5 will be accomplished.

R645-301-733.200, Demonstrate there is reasonable likely hood for achievement of use for the sedimentation pond in light of the fact that the plan states an impoundment will be created within the confines of the site at the location of the old plant area (section 4.12 pg. 9)

R645-301-341, The applicant needs to propose a new revegetation success standard for the areas that were to be compared with the greasewood reference area.

Wellington Postmining Land Use Change/Bond Release

ACT/007/012-BR97

February 8, 1999

Page 3

R645-301-542.300, The applicant must update Map E9-3342 to show the final reclamation contours in the proposed load out site and in the rest of the area west of the Price River.

R645-301-740. The applicant must provide the final reclamation contours and drainage for the proposed bond release and adjacent permitted area.

R645-301-740 Information removed from Map E9-3341 should be retained for the Ridge Road, northwest tailings dike, Farnham County Road, and the topsoil stockpiles/test plot-east side.

R645-301-830.140 The applicant must supply the Division with a narrative explaining where the information for the bond calculations came from. For example the narrative should explain where the fill material will be taken from and where it will be placed, and where that information is shown in the bond calculations. The reason for this requirement is that the Division is sometimes unable to reconstruct the bond calculations from the information in the MRP.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

GENERAL

Regulatory Reference: R645-301-120

Analysis:

Information in Section 1.00 on page 6 and Section 4.12 page 3 is no longer accurate and should be updated.

Map changes resulted in the following missing information. Map No. 412.01 may more appropriately be named Bond Release Map to describe its content. A north arrow is needed on Map F9-177 1 of 2. The information on G9-3511 should show the difference between the disturbed permit area boundaries, proposed disturbed boundaries and permit boundary changes.

Changes to the text and drainage designs regarding sedimentation and drainage control structures was not submitted in the redline strike out format. Complete review of drainage information will be conducted when reclamation drainage is considered and the amendment is presented in redline strikeout format.

Findings:

The applicant must provide the following in accordance with the requirements of:

R645-301-120, 1) Provide current information for paragraphs in section 1.00 on page 6 and, section 4.12 page 3. 2) Illustrate the disturbed permit area boundaries, proposed disturbed boundaries and permit boundary changes clearly on G9-3511. 3) Provide the amendment in redline strike out format. 4) Map No. 412.01 may more appropriately be named Bond Release Map to describe its content. 5) A north arrow is needed on Map F9-177, 1 of 2.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

Analysis:

Section 2.22 provides a detailed history of soil sampling in the topsoil borrow areas D, E, F, G, H, and I with soil survey studies presented in 9 different sampling periods. These periods are presented with soil profile descriptions and laboratory analyses.

Section 2.41 contains a detailed account for soil resources available as soil borrow for reclaiming the Wellington site. The following additional environmental resource information is provided with this current submittal:

- A soil survey was performed for Area I. A "Soil Investigation Report" is provided in Section 2.41 for Area I, approximately 7.55 acres located in the SW corner of the permit area. Map G9-3511 shows the location of Area I and the location for each soil pit.

The Area I soil is described as Stormitt series, a loamy-skeletal, carbonatic, mesic Ustic Haplocalcid. The A horizon and Bw horizon is about 9 inches thick (17% rock fragments, primarily gravels) Underlying this is the calcic Bk horizon, about 17 inches thick (36% rock fragments, gravels and cobbles). The C horizon averages 7 feet in depth (59% rock fragments, gravels and cobbles), with a texture variously described as sandy loam, sandy clay loam, and clay loam. Rooting depth was found to be limited to the upper 30 inches of soil (i.e. the A, Bw and Bk horizons).

Stormitt series is in the Semidesert Gravelly Loam range site. The average annual precipitation is 8 to 10 inches. The hazard of water erosion is medium. There was 23% plant cover noted at the sites of excavation. Plants such as Sagebrush, Galleta grass, Shadscale,

Prickly Pear cactus, Indian Ricegrass, and Rabbitbrush were noted. The suitability of Stormitt series for rangeland seeding is poor. The main limitations are the stoniness of the soil and the low annual precipitation (Jensen and Borchert, 1988).

Nine sites were excavated and described for Area I. Three sites were sampled by horizon: W3, W5 and W7; and, the remaining six sites were sampled by combining the subsurface horizons. Sites W3, W5, and W7 illustrate the quality of the soil which naturally occurs in the germination and growth medium. In the top 8 -10 inches the pH is 7.8 to 8.2; the EC is 0.63 to 1.09 mmhos/cm; the SAR is 1.6 to 4.8; the texture was noted as CL, SL, and SCL; percent organic matter is 0.8%; nitrogen varies from 1.2 to 3.0 mg/L; and water holding capacity is 0.1 in/in. In the lower horizons, the SAR jumps to levels of 5.8 to 13; the available water holding capacity is reduced to poor levels below 0.05 in/in; and the EC rises to the fair to poor range with values from 4.11 to 11.0.

The submittal concludes that with the exception of site W7, all soils will be suitable according to the Division's guidelines, after mixing has occurred. The Guidelines for Topsoil and Overburden¹ provide an evaluation of soil for vegetative root establishment. When the survey results are compared to this table, the Division must take exception to the conclusion reached by the Permittee as follows:

- Even after mixing the samples, a high conductivity value was noted for W1 (7 - 60") and W2 (15 - 48"), with W4, W6, W7 and W8 composite samples approaching the poor value of 8.0 mmhos/cm.
- Poor to Fair SAR values were noted in the composite samples of W1 (7 - 60" and 60 - 123"), W2 (15 - 48" and 48 - 84"), W4 (9 - 72" and 72-120"), W6 (24 - 60" and 60 - 114"), W8 (48 - 84"), W 9 (48 -114").
- Composite samples which rated poorly for available water holding capacity (based upon the assumptions listed on page 279 of sec. 2.22 of the MRP) were sites W1 (60 - 123"), W2 (48 - 84"), W3(72 - 108"), W4 (72-120), W6 (60 - 114"), W8 (48 - 84"), and W9 (48 - 114"). The lower organic matter in the subsurface horizons would impact the available water capacity in a negative fashion as well.

The Stormitt soil is a soil that is saline just below the surface horizons and sodic at its depths. The deeper materials would be used to reclaim the disturbed area and the surface horizons would be returned to the borrow site for reclamation. This presents a **two-fold problem**.

¹Leatherwood, J., and Duce, D., 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah Department of Natural Resources, Division of Oil, Gas and Mining.

Wellington Postmining Land Use Change/Bond Release

ACT/007/012-BR97

February 8, 1999

Page 6

- **First**, the reclamation of the borrow site would not be easily accomplished, given the amount of rain and the potential for erosion during storm events prior to adequate vegetation reestablishment.
- **Second**, the Stormitt soil material is not the best available for reclamation of the disturbed area when compared to Greybull soil series.

Soil from the Greybull series is currently approved within the Wellington MRP as the best available material within the permit area. In fact, the Greybull series is a source of quality substitute topsoil material that presents little problem for reclamation of the disturbed area (see NEICO-5, NEICO-6, C-1, and the SCS Soil Survey of the Carbon Area, Utah). As noted in section 2.22, page 97, 98, 108, and 122 of the MRP, the Greybull series (represented by the sample NEICO 6) is a fine-loamy, mixed, calcareous, mesic Typic Torriorthent. There are 10 to 15% gravels in this silty clay loam/ clay loam soil. The pH ranges from 7.9 to 8.1, the SAR values are 1.3 to 2.2; the EC ranges from 1.0 to 2.9 mmhos/cm.

*In conclusion, the proposed Borrow Area I does not meet the Division's criteria as the source for best available material (substitute topsoil) within the permit area. In order to achieve successful reclamation of lands affected by coal mining activities, use of the proposed soil borrow area needs to be in accordance with state regulations to **minimize surface disturbance** and to **disturb the smallest practicable area** at any one time. Greenhouse studies or field trials, or equivalent methods are needed for the proposed soil borrow Area I to **demonstrate that revegetation is feasible to minimize surface erosion**. Borrow Area I is located in a sensitive environmental area for reestablishing prompt re-vegetation after disturbance which will adversely affect soil stabilization and result in maximum surface erosion.*

Findings:

This section of the submittal does not fulfill the requirements of:

R645-301-553.252, R645-301-232.200 and R645-301-233, The proposed Borrow Area I does not meet the Division's criteria as the source for **best available material** (substitute topsoil) **within the permit area**. Soil suitability must be **demonstrated** to the Division to clearly show that the resulting soil medium is equal to, or more suitable for sustaining vegetation than the existing Greybull soil series located in borrow Area H.

R645-301-330 (including 331 and 333), R645-301-341.300, In order to achieve successful reclamation of lands affected by coal mining activities, use of the proposed soil borrow (Area I) needs to be in accordance with state regulations to **minimize surface disturbance** and to **disturb the smallest practicable area**. Greenhouse studies, field trials, or equivalent methods are needed for soil borrow

Area H and proposed Area I to **demonstrate** that revegetation is feasible to minimize surface erosion.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: R645-301-542

Analysis:

On page 7 of Section 4.12, the applicant states:

The following reclamation activities will be completed before final approval is sought from the State of Utah, Division of Oil, Gas and Mining for the postmining land use change.

Demolition and removal of all buildings including the . . . track hopper . . .

On Page 8 of Section 4.12 of the amendment, the applicant states:

Track Hopper - The existing track hopper will be used to supply industrial water for dust control and wash down at the facility. As part of our agreement with NEICO, Andalex will acquire Water Rights 91-254 for 0.15 cfs of water, which is pertinent to the track sump according to the Utah Division of Water Rights.

The planned use of the track hopper is acceptable; however, the applicant must also describe the postmining use of the sand hopper and the concrete structure in the auxiliary pond. If the sand hopper and concrete structure will not be used as part of the postmining land use then those structures must be removed.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the applicant must provide the following in accordance with:

R645-301-542.400, The applicant must either state why the sand hopper and concrete structure in the auxiliary pond are needed for the postmining land use or commit to remove the structures before bond release.

POSTMINING LAND USE

Regulatory Reference: R645-301-412, R645-301-413, R645-301-414

Analysis:

On October 27, 1997, the Division approved amendment 97F which changed the postmining land use on part of the permit area from grazing and wildlife to industrial. The applicant has now proposed to increase the size of the area with an industrial postmining land use to include nearly all of the disturbed area on the west side of the Price River except the coarse refuse pile. As required in R645-301-414, the existing mining and reclamation plan contains plans for returning the area to the premining land use.

The area where the postmining land use would be changed is shown on Map 412.01, and the application includes a metes and bounds legal description of this area. According to the application, the area is well-suited for industrial activities because of its proximity to the railroad tracks and U.S. Highway 6, and it is zoned by Carbon County as "heavy industrial."

For the Division to approve an alternate postmining land use, the applicant is required to show the use meets the requirements of R645-301-413.300. The following discussion itemizes each criterion together with the justification in the application.

1. The use must be a higher and better use.

The application indicates the area is ideally suited for industrial use because it has long been the site of coal processing facilities, and a main line railway dissects the property. A letter from Andalex Resources, Inc., indicates the site is not ideal for agricultural or grazing usage, part of the premining land use. The letter says the area does not support grazing in its natural state, and wildlife usage in the area is limited to rodents, rabbits, lizards and insects.

While the Division agrees the area has limited productivity and usefulness for wildlife and grazing, the assertions in the Andalex letter are exaggerated. Surrounding areas are grazed, and the area supports other wildlife besides those mentioned, including big game and raptors. However, the only part of the permit area with critical wildlife habitat is the riparian area near the Price River, and the applicant has not disturbed most of this area and has not proposed to change the land use. Wildlife habitat in the area where the land use is proposed to be changed is listed as "substantial value" for some species. According to the definition of this term, these areas provide some forage but are primarily existence areas.

Prior to disturbance, most of the area where the land use would be changed probably had a galleta/atriplex vegetation community. The Natural Resources Conservation Service has estimated productivity in adjacent areas at 240 pounds of dry forage per acre. This compares to a

sagebrush/grass community in Carbon County in fair range condition with 800 pounds per acre and a pinyon-juniper/shrub community with 1750 pounds per acre. The areas where the land use would be changed have limited value for grazing or wildlife use.

Considering the restricted value of the land for wildlife and grazing and the value it has for industrial development, the proposed land use can be considered a higher and better use.

2. There must be a reasonable likelihood of achieving the use.

The application indicates the Boards of Directors of Andalex Resources, Inc., and West Ridge Resources, Inc., have approved the budget for construction of the loadout facility. Andalex has received a commitment from Union Pacific Railroad to allow dual rail access to the site, and the application includes a letter from Union Pacific indicating support for the land use change.

The application includes a copy of a summary of the terms and conditions of an option agreement between the applicant, the operator, and Andalex Resources, Inc. The closing of the transaction is contingent upon the applicant and operator gaining bond release and removal from state or federal permit area.

Some facilities have not been reclaimed, and the application does not discuss how some of these would be used. These include the sand hopper and the foundation for the pumphouse over the auxiliary pond. If there is no use for these facilities, the applicant will need to reclaim them.

It appears there is at least a reasonable likelihood of achieving the alternate postmining land use. However, there is no indication how the sand hopper and auxiliary pond pumphouse foundation would be used.

It also does not appear there is a postmining land use for the roadside, auxiliary, and dryer ponds. The company proposing to build the railroad loadout has indicated it plans to build a sediment pond in a different location; therefore, the existing ponds would not be used.

3. The use must not present any actual or probable hazard to public health or safety, or threat of water diminution or pollution.

It will be necessary to construct the site to all federal and state safety standards, and the area will still be subject to requirements of the Clean Water Act. Andalex intends to use part of the area for a sediment pond, but it would be impossible for the Division to be certain this actually happens because it would no longer be within a permit area.

The track hopper has been fenced with a welded wire fence, but this structure is

Wellington Postmining Land Use Change/Bond Release

ACT/007/012-BR97

February 8, 1999

Page 10

considered a safety hazard. The application needs to discuss how the track hopper will be secured.

Threats of water pollution or diminution are addressed separately.

4. The use will not be impractical or unreasonable, inconsistent with applicable land use policies or plans, involve unreasonable delay in implementation, or cause or contribute to violation of federal, Utah or local law.

The site has been used intermittently to process and load coal since 1957, so the proposed use as a coal loading facility is not considered impractical or unreasonable.

The application includes comments from Carbon County supporting the proposed land use change. It also says the area is zoned for heavy industrial use. Therefore, the proposed use appears to be consistent with local zoning ordinances and land use plans. The Division has also received comments from the Southeastern Utah Association of Local Governments supporting the change in use.

The site would be used as a loadout primarily for coal from the proposed West Ridge Mine. While this mine is not yet approved, the Division is in the process of reviewing the application, and there does not appear to be any major obstacle that would prevent eventual permitting of the mine.

According to the application, Andalex has allocated funds to construct the facility and has already spent about \$200,000 on engineering designs. They intend to begin construction in May 1999 and to have the site operational by December 1999.

For these reasons, it appears there would be no unreasonable delay in implementation of the industrial land use.

Approval of the alternate postmining land use should not cause or contribute to violation of any laws. Anyone using the site after bond is released would need to comply with all applicable laws, but the land use appears to be consistent with local ordinances. In addition, the eventual user will need to gain approval from any land owners, such as the railroad.

Findings:

Information provided in the proposal is not considered adequate to meet the requirements of this section of the regulations. Prior to approval, the applicant must supply the following in accordance with:

R645-301-413, The application needs to discuss how all facilities to remain after

reclamation would be used for the proposed postmining land use. This has been done for the track and coal hopper, but the application does not discuss the usefulness of the sand hopper, the foundation of the pumphouse over the auxiliary pond, or the three sediment ponds.

R645-301-413, The application needs to address safety concerns at the track hopper.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Analysis:

The applicant did not address how the area for the proposed railroad load out would meet the approximate original contour requirements, nor did he request a variance from AOC requirements. In the approved MRP, the applicant states:

Area West of the Price River

The main plant facilities area west of the Price River will be regraded as shown on the Map E9-3342 following the removal of the surface facilities. Culverts beneath the plant railroad system will be removed and the surface regraded to maintain drainage to the culverts beneath the D&RG Railroad mainline. The fills constructed for the plant railroad system and the ponds will be contoured to blend with the surrounding areas. The diversion ditch will be regraded as shown on the Map E9-3342. The regraded areas will be prepared and seeded in accordance with the revegetation plan (see Section 3.41).

The applicant originally planned on restoring the area to the approximate original contours. The applicant has no plans to grade the area prior to bond release, nor did he request a variance from the AOC requirements. Therefore the Division must either find that the AOC requirements have been met or deny the amendment because the applicant did not request a variance from the AOC requirements.

The Division does not know what the undisturbed topography of the area was before it was disturbed for mining activities. The area was developed as part of a coal loadout and wash plant in 1957. There were no detailed topographic maps of the area prior to 1957. Therefore, the Division cannot expect the applicant to restore the land to the original topography. Instead the applicant must restore the area to a configuration that is similar to the nearby undisturbed land.

Two major factors in meeting the AOC requirements are that the land blend into the existing topography and that the drainage patterns are restored. Most of the land along the Price River is flat and has a similar topography to the proposed railroad load out facility. There are no major drainages that need to be restored in the area.

The Division finds that the proposed load out area will have a topography similar to the undisturbed areas near the load out. However, the applicant needs to show how reclamation standards will be achieved for ditch UD-1 and Watershed 5.

Findings:

Information provided in the application is not considered adequate to meet the requirements of this section of the regulations. Prior to approval, the applicant must supply the following in accordance with:

R645-301-740, The applicant needs to show how reclamation standards will be achieved for ditch UD-1 and Watershed 5.

BACKFILLING AND GRADING

Regulatory Reference: R645-301-553

Analysis:

In the approved MRP, the applicant states:

Area West of the Price River

The main plant facilities area west of the Price River will be regraded as shown on the Map E9-3342 following the removal of the surface facilities. Culverts beneath the plant railroad system will be removed and the surface regraded to maintain drainage to the culverts beneath the D&RG Railroad mainline. The fills constructed for the plant railroad system and the ponds will be contoured to blend with the surrounding areas. The diversion ditch will be regraded as shown on the Map E9-3342. The regraded areas will be prepared and seeded in accordance with the revegetation plan (see Section 3.41).

The applicant needs to update this section of the MRP. Some of the information will not apply once the area has been approved for an alternative postmining land use.

The applicant did not address how the coal mine waste that is in the proposed train load out area will be handled. The Division was informed by EarthCo that all coal at the site had been removed. Any remaining material with coal has no commercial value and should be considered coal mine waste. The applicant must address in the MRP how all coal mine waste will be handled.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the applicant must provide the following in accordance with:

R645-301-552, The backfilling and grading plan for the area west of the Price River must be revised so that it is consistent with the approved postmining land use change.

R645-301-553.250, The applicant must address how the requirements of R645-301-553.250 will be addressed for all coal mine waste in the proposed railroad loud out area.

DISPOSAL OF COAL MINE WASTES

Regulatory Reference: R645-301-542.730, R645-301-553.250

Analysis:

Section 2.41, page 1, of the existing MRP states that piles of coal waste in the main plant area will be removed and deposited on the coarse refuse pile. The present proposal would allow the coal mine waste to remain in the main plant area, to be used by the owner of the industrial site.

The regulations clearly state that coal mine waste and refuse must be disposed of within the permit area and properly covered to protect the surface and underground water resource. Absent any information regarding this waste the Division must follow the regulations for its disposal. It is recommended that the Permittee sample the waste in question for its BTU rating, and acid/toxic properties.

Findings:

This section of the submittal does not fulfill the requirements of:

R645-301-542.730 and R645-301-553.250 - The coal mine waste located at the Main Plant area must be sampled for its quality and acid/toxic properties to allow the Division to debate its final disposition.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Wellington Postmining Land Use Change/Bond Release

ACT/007/012-BR97

February 8, 1999

Page 14

Regulatory Reference: R645-301-542.600

Analysis:

In Section 4.12 of the proposed MRP the applicant states:

Access Road - The existing paved access road leading into the site will continue to be maintained and utilized as the primary access to the site during construction and operation of the new load out.

The main requirements for leaving a road for a postmining land use are that the road is classified as a primary road and designed, constructed and maintained in accordance with the requirements for primary roads and in consideration of the approved postmining land use. The road is classified as a primary road and meets the design requirements. The road will be needed for access to the proposed coal load out. The Division finds that the access road meets all the requirements of R645-301-513, R645-301-521, R645-301-527, R645-301-534 and R645-301-537. Therefore, the Division approves the plan to leave the access road.

Findings:

The applicant met the minimum requirements of this section.

HYDROLOGY

Regulatory Reference: R645-301-700

Analysis:

Ground Water Information

The application for bond release needs to assess impacts to ground water in the permit and adjacent areas based on performance standards. The applicant must demonstrate through water monitoring data analysis that the operations minimized disturbance to the hydrologic balance in the permit and adjacent areas and show that seasonal water quality and quantity are suitable for the post mining land uses.

To demonstrate that operations minimized disturbance, the following background information may be used to guide data comparisons. Discussions considering site operation phases and climate should also be included.

- Information collected is operational because mining already occurred at this site prior to

- the enactment of the 1977 mining law.
- The preparation plant alluvial aquifer has two gradients. One is toward the Price River south east of the preparation plant and a second discharges toward the river near topsoil borrow area "A".
- The groundwater source predominately originates upstream where alluvial deposits provide a conduit for the Price River recharge to be conveyed toward the site. Other recharge may occur from subsurface flows in and adjacent to the preparation plant. Well GW-8 has the highest known surface water elevation in the permit area.
- Well GW-14 is considered mostly out of the range of influence of site operations and may be used as a "baseline" well. Seasonal and climatic changes may affect the direction of flow in localized areas.

Surface Water Information

The application for bond release needs to assess impacts to surface water in the permit and adjacent areas based on performance standards. The applicant needs to demonstrate through water monitoring data analysis that the operations minimized disturbance to the hydrologic balance in the permit and adjacent areas and to show that seasonal water quality and quantity are suitable for the post mining land use.

Acid and Toxic Materials

The applicant needs to provide data to show whether the coal mine waste in the proposed train load out is acid and toxic forming. The fact that this site is to be turned into an impoundment that is created by the proposed site configuration has implications to ground water quality since the water table at the site is near the surface.

Water monitoring

No changes to the reclamation water monitoring plan are presented. Sections 7.31.21 and 7.31.22 confirm the maintenance of all groundwater stations. Therefore, permanent casing and sealing of wells or, well transfer in the proposed bond release area remains associated with the bond release in the adjacent permit area. Permanent casing of these wells will occur when final bond release occurs for the permitted area.

Transfer of Water Rights and Related Permits

The existing track hopper will be used to supply industrial water for dust control and wash down at the facility. Water Right 91-254, water accessed through the track hopper sump, is to be transferred as part of the agreement between NEICO and Andalex (section 4.12, pg. 8). The water from this source needs to be shown to meet state regulatory requirements for the intended use and needs to meet any other applicable state water quality standards. Prior to bond

release, a full suite baseline parameter analyses and comparison to GW-14 (baseline) and operational information should be analyzed and presented. Although approval for bond release can be granted first, the transfer should occur prior to returning the bond.

In section 4.12, following the sale between Andalex and NEICO, Andalex will apply for applicable NPDES permits. Again approval for post-mining land use change and approval to release the bond can be granted, but the bond release will occur after permit exchange.

Drainage plan

The regraded site and drainage reconfiguration was conducted prior to amendment approval. Violation NOV 98-41-5-1 was issued as a result. Although the plan accurately states the reclamation activities will be completed before approval is sought (section 4.12), the activity prior to approval is not in accordance with the R645 requirements.

Changes to the text and drainage designs regarding sedimentation and drainage control structures were not submitted in the redline strikeout format. Therefore, review of this information will be delayed until an amendment that identifies the changes in redline strikeout is submitted. See R645-301-120 above.

The preparation plant area now contains a berm to ensure watershed boundaries are separated between the area released for the post-mining land use. The permit area needs to include the berm for inspection purposes. The plan fails to consider the existing reclamation plan and interferes with the approved plan for the UD- 1 ditch and, the reclamation drainage plans for Watershed 5. The plan needs to consider regrading the berm and final bond release configuration.

The changes proposed to the permit area boundary are not consistent with constructing the reclamation drainage plan within the permit area. The plan does not clearly show the final reclamation configuration including those drainage structures (culverts) proposed for retention as part of the post mining land use.

Sedimentation Pond

The applicant requests retaining the sedimentation pond. However, the statement regarding creating an impoundment within the confines of this site at the location of the old plant area suggests the pond is not to be retained as part of the post mining land use (section 4.12 pg. 9). The applicant needs to demonstrate that retention of the pond is necessary for the intended postmining land use according to R645-301-733.200.

Findings:

The amendment is not considered adequate to meet the requirements of this section. Prior to approval, the applicant must provide the following in accordance with:

R645-301-880.330, The application for bond release needs to assess impacts to ground and surface water in the permit and adjacent area based on performance standards and demonstrate through water monitoring data analysis that the operations minimized disturbance to the hydrologic balance in the permit and adjacent areas. The applicant also needs to show that seasonal water quality and quantity are suitable for the post mining land uses, include analyses that show whether the coal mine waste in the proposed train load out is acid or toxic forming, and provide a full baseline suite for water at the trackhopper to show that water quality meets state water quality standards.

R645-301-740, 1) Clearly show the final reclamation configuration including those structures proposed for retention as part of the post mining land use. 2) Include the berm within the permit area to provide an inspectable unit. 3) Provide a plan for regrading the berm at final bond release and show how the existing reclamation for the UD- 1 ditch and Watershed 5 will be accomplished.

R645-301-733.200, Demonstrate there is reasonable likely hood for achievement of use for the sedimentation pond in light of the fact that the plan states an impoundment will be created within the confines of the site at the location of the old plant area (section 4.12 pg. 9)

REVEGETATION

Regulatory Reference: R645-301-341

Analysis:

The area where the applicant has proposed changing the postmining land use and having the bond release includes the greasewood revegetation reference area. This reference area would be used as a revegetation success standard primarily for areas on the east side of the Price River. The applicant needs to propose a new revegetation success standard for these areas.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Prior to approval, the applicant must provide the following in accordance with:

R645-301-341, The applicant needs to propose a new revegetation success standard for the areas that were to be compared with the greasewood reference area.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: R645-301-521

Analysis:

The submitted map E9-3341 omitted information provided on the previous version which delineates the Ridge Road, northwest tailings dike, Farnham County Road, topsoil stockpiles/test plot-east side. Although some of this information may be referenced elsewhere, it should be retained on the facilities map for clarity.

Map F9-177 1 of 2 was revised to show a berm placed along watershed 4 and 5. No other changes were made; however, no north arrow is provided on the map.

Final surface configuration maps.

On page 5.40 of the MRP the applicant states:

The main plant facilities area west of the Price River will be regraded as shown on Map E9-3342 following the removal of the surface facilities. Culverts beneath the plant railroad system will be removed and the surface regraded to maintain drainage to the culverts beneath the D&RG Railroad Mainline. The fills constructed for the plant railroad system and the ponds will be contoured to blend with the surrounding areas. The diversion ditch will be regraded as shown on Map E9-3342. The regraded areas will be prepared and seeded in accordance with the revegetation plan (see Section 3.41).

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the applicant must provide the following in accordance with:

R645-301-542.300, The applicant must update Map E9-3342 to show the final reclamation contours in the proposed load out site and in the rest of the area west of the Price River.

R645-301-740. The applicant must provide the final reclamation contours and drainage

for the proposed bond release and adjacent permitted area.

R645-301-740 Information removed from Map E9-3341 should be retained for the Ridge Road, northwest tailings dike, Farnham County Road, and the topsoil stockpiles/test plot-east side.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: R645-301-800

Analysis:

Determination of bond amount.

The Division calculated the reclamation cost for the Wellington Preparation Plant once the railroad load out area has been released. The Division calculated the reclamation cost to be \$3,720,000. (See an attached sheet for a reclamation cost summary.)

The Division needs the applicant to give a narrative of the reclamation cost. The narrative will enable a reader to know where the information used to determine the bond amount comes from in the MRP. In addition the narrative will help the reader understand reclamation will be accomplished. For example the narrative should explain where the fill material will be taken from and where it will be placed, and where that information is shown in the bond calculations.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the applicant must provide the following in accordance with:

R645-301-830.140 The applicant must supply the Division with a narrative explaining where the information for the bond calculations came from. For example the narrative should explain where the fill material will be taken from and where it will be placed, and where that information is shown in the bond calculations. The reason for this requirement is that the Division is sometimes unable to reconstruct the bond calculations from the information in the MRP.