Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

August 8, 1990

Mr. William R. Skaggs
Blue Blaze Coal Company
P. O. Box 784
Price, Utah 84501

Dear Mr. Skaggs:

Re: Second Completeness Review, Blue Blaze Coal Company, Blue Blaze Mine, PRO/007/020, Folder #2, Carbon County, Utah

Enclosed is the second completeness review for the Blue Blaze Mine Permit Application Package (PAP). The deficiencies identified in this review must be addressed before the PAP can be determined complete and the public comment period begin.

The Division has not yet received written comments from state or federal agencies. However, several agencies have indicated that they will be commenting. As soon as these written comments are received, they will be forwarded to you.

General comments about the revised PAP are as follows:

1. All references to the old coal rules must be eliminated and the plan must be revised to reflect the rewritten coal rules (effective April 12, 1990).

2. Maps must include all relevant information, yet be clear and legible and not confusing.

3. References and sources should be included with tables of data.

Please call me if you have any questions or to arrange a meeting to discuss the completeness review.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

djh
Enclosure(s)
cc: L. Braxton, DOGM
"A" Team
AT

INITIAL COMPLETENESS REVIEW
BLUE BLAZE COAL COMPANY
PRO/007/020

Carbon County, Utah
August 8, 1990

R614-301-100 Permit Application Requirements-(PGL)

112.320. The applicant must submit information under which Mr. George Fehr, the principal shareholder, has previously had interest in a coal mining and reclamation operation in the United States within the 5 years preceding the date of application.

112.700. The MSHA number for the facilities (proposed applications) must be included in the Permit Application Package (PAP).

117.200. A sample of the newspaper advertisement that would be published must be included in the PAP (see R614-300-121).

122. All relevant portions of published materials presented in the PAP must contain explicit citations of the referenced materials. Please address accordingly.

130. All technical data must be accompanied by the names of persons or organizations that collected that data and descriptions of the methodology used to collect and analyze the data.

141. All maps must be presented in a clear and concise and consolidated format. The information presented must be clear and not confusing.

A "permit area" map must be submitted.

142. All maps and plans submitted must distinguish among each phase during which coal mining and reclamation operations were or will be conducted at any place within the life of the operations.

R614-301-200 Soils-(HS)

221. The applicant must conduct a survey of the entire proposed permit area to indicate whether prime farmland exists as given under R614-302-313. The original prime farmland determination (June 13, 1980 letter from T. B. Hutchings, State Soil Scientist) included Section 17, T13S., R8E., SLBM. The proposed permit area encompasses portions of Sections 7, 8, 18 and 20, T13S., R8E., SLBM. Therefore, the applicant must request a prime farmland investigation be conducted by the State Soil Conservationist to determine the occurrence and extent of prime farmland within the proposed permit area.

223. The Carbon Area Soil Survey is now published and publicly available. The survey encompasses the entire proposed permit area. Therefore, soil descriptions located in the Permit Application Package must be correlated to the National Cooperative Soil Survey for the Carbon Area.

Correlation of the disturbed area soils will enable the applicant to derive present and potential productivity estimates for the existing soils (R614-301-222.400).

On page 8-12 of the PAP the applicant reports that the soils of the area "can support cultivated crops", then states that "soils have severe limitations which restrict their use largely to grazing woodlands or wildlife." Please rectify the above discrepancy and cite the literature which was employed to derive these statements.

231. The soil resources information with regard to suitable soil available for final reclamation is incomplete, contradicting, and must be revised. The following is a listing of the inadequacies and contradictions.

1. Table 8-3, Soil Chemical and Physical Properties, is inadequate for the following reasons:

   (a) Pit #3, Sample Increment: 45-75 cm. The percent sand, silt and clay fractions add up to 118.8 percent.

   (b) Pit #4 and Pit #5, Sample Increment: 15-30 cm are exactly the same for the reported parameters and the sand, silt and clay fractions add up to 127.4 percent.

   (c) Pit #4, Sample Increment: 15-30 cm is not accompanied by a laboratory (Commercial Testing and Engineering Company) data sheet.

2. Plate 8-1 must depict the topsoil stockpiles, the alluvial disposition area behind the waste rock embankment, and the entire Area #7 (Plate 8-2) within the disturbed area.

3. Areas #1-7, depicted on Plate 8-2, indicated topsoil stripping depths and areal extent. The applicant must first collect and analyze soil samples to the planned excavation depths (i.e., sampling depths: 30 cm increments, laboratory analyses: the Division's Guidelines for Management of Topsoil and Overburden, Table 1, and include hot water extractable Selenium and Boron). Additionally, estimates of topsoil salvage area are incorrect. The Division estimates that approximately 90,345 ft^2 of surface area will be disturbed (Plate 8-2) during soil salvage operations. The applicant estimates that 167,815 ft^2 of surface area will be disturbed. Please describe how this area estimate was attained and

revise topsoil mass balance calculations in accordance with new finding.

4. According to the "Explanation", Plate 8-2, the areas not stippled or shaded will be "topsoiled and revegetated." Accordingly, the entire area depicted by Plate 8-2 would have to be topsoiled and revegetated. Please revise.

5. Areas 1-7 (Plate 8-2) depict areas where soil will be separately removed and stockpiled. The applicant must substantiate the lack of soil removal in areas where disturbance is planned (Plate 8-1) but have not been included on Plate 8-2 for soil removal.

R614-301-300 Biology-(SMW)

321.100. Page 9-3 of the PAP lists 6 vegetative communities, page 9-33 lists 14 vegetative communities of which many communities from both lists are not shown on the vegetation map. The applicant must list, provide acreage and describe the vegetative communities within the permit area in the PAP. The community description must correlate to those shown on the map.

321.200. A statement of productivity and range condition of the reference area from the U.S. Soil Conservation Service must be included in the PAP.

323.100. The reference area identified on Vegetation Map 1 is shown at a different location on Vegetation Map 2. The reference area must be represented accurately on the map as located in the field. A land surveyor should correctly locate the reference area on the map.

323.400. Please complete Vegetation Maps 1 and 2. An area delineated by heavy lines on Vegetation Map 2 is not named. Vegetation Map 1 is not complete the vegetative communities for the entire permit area must be outlined and named, arrows are not acceptable.

331. Provide a time schedule for interim revegetation.

332. The applicant must address the anticipated impacts of subsidence on the golden eagles nest which is located in section 7. This discussion must include an analysis of the angle of draw of subsidence and a detailed monitoring program.

341.100. Please provide a detailed time table for completion of each major step in the revegetation plan (i.e. seed and transplant ordering, topsoil placement, seeding, etc.).

341.210. A final reclamation seed mixture and shrub plantings must be submitted for the mesic and White Fir/Scrub Oak vegetative types.

342.100. The wildlife enhancement plan for final reclamation is not adequate. The applicant must provide reference areas as described in R614-301-356.100 and provide woody plant densities success standards for wildlife enhancement. Two Hundred and Forty woody plants per acre is not adequate as wildlife enhancement.

356.100. The applicant must select and provide a quantitative description of reference areas for the mesic and the White Fir/Scrub Oak vegetative communities before a permit will be issued. Reference area location must be approved by the Division.

356.110. Please provide a description of the vegetative sampling methods to be used for postmining vegetative bond release. Describe where transects will be located and which areas will be compared to the appropriate reference area.

Please provide a detailed schedule of quantitative sampling for interim and final revegetation as described in the Division's vegetation guidelines.

358.400. The applicant must address avoidance and restoration during coal mining and reclamation operations to the intermittent stream which runs through the proposed facilities.

R614-301.400. Land Use-(SMW)

411.142. The applicant must show coordination with the State Historic Preservation Officer with regards to cultural and historic resources information. A letter included in the PAP will suffice as coordination.

R614-301-500 Engineering-(JK)

512.200. The registered land surveyor cannot certify haul roads (Plate 3-2, 3-2A and 3-2B) and sedimentation ponds. Plans and engineering designs must be certified by a qualified professional engineer. Please certify accordingly.

513.300. The applicant must submit for approval to the Division a plan for disposing of underground development waste, etc., in underground workings.

521.121. The applicant must show the location of all buildings on the surface facilities map. The sewage system, the culinary water system, the trash bins, and the shop are all absent from the surface facilities map.

521.125. The sedimentation pond is absent from the surface facilities map.

521.133. (Public Road, page 3-6) The letter from Carbon County Commission dated February 6, 1989 regarding the use of the Carbon County Road is not decisive. Beaver Creek Coal Company currently maintains the county road with a formal agreement. However, Gordon Creek #2, #7 and #8 Mines will be closed at the end of this year. This closing, combined with the reclaimed Gordon Creek #3 and #6 Mines may alter the maintenance responsibilities of this road and therefore, transfer major responsibility for maintenance to the Blue Blaze Coal Company. An updated letter from the Carbon County Commission must be included in the PAP.

521.142 The applicant must provide adequate physiochemical analyses (constituents outlined in the Division's Guidelines for Management of Topsoil and Overburden, Table 6) of coal waste or excess spoil to be disposed of. Additionally, disposal techniques must be described and location of said disposal depicted on an appropriate plate. The applicant must also provide volume estimates of the material to be disposed of and the volume and source of cover material required. (HS)

521.160. The applicant must provide map(s) identifying all existing areas of spoil, non-coal waste, coal development waste, areas of predisturbance and areas to be retopsoiled and revegetated. (HS)

521.163. The applicant must provide a map which shows specifically the areas for which a performance bond or equivalent guarantee will be posted.

523. The applicant has provided a description of the proposed mining operation, but is rather vague. Particularly vague is the description of the portals and the coal seams to be mined; the applicant is unclear as to whether there will be 7 or 8 portals, which seams they will access, where they will be located, and which mine (#1 or #2) will be accessed by which portal. The applicant must clarify these issues in Chapter 3 of the PAP and on Plate 3-1.

524. The applicant has stated that the use of explosives is unlikely, but a possibility nevertheless. Therefore, the applicant must draft a blasting plan in accordance with the requirements of this section.

525.270. The applicant must commit to provide the Division with a detailed plan of the underground workings, within a set schedule, as required by this section.

525.300. The applicant must commit to notifying, by mail, all owners of surface property at least 6 months prior to mining.

526. The applicant must provide a description of all facilities. In particular, the applicant must provide a description of the sewage system and the culinary water system. The description of the culinary water system must give the location and general physical configuration of all intakes.

527.100. The applicant must classify each road.

528.321. As mentioned previously, the applicant must submit a plan for the disposal of underground development waste in underground workings (see 513.300).

529.210. The applicant must commit to proper management of mine entries rendered temporarily inactive, as described in this section.

532. The applicant must provide descriptions and designs for sediment control structures. In particular, cross sections and designs are needed for drainage ditches. A description of methods for containing and treating runoff from areas surrounding surface facilities and buildings must also be provided.

533. As mentioned previously, the applicant must provide an engineering plan for the sedimentation pond. The table of contents for Appendix 4 mentions maps and a detail sheet, but were not found in Appendix 4, or elsewhere in the PAP (see 521.125).

534.130. The applicant must provide data and calculations to show that all road embankments will have a static safety factor of at least 1.3.

536.520. As mentioned before, the applicant must draft a plan for disposing of coal mine waste in underground mine workings (see 513.300).

542.100. The applicant must provide a detailed reclamation plan showing not only the time required for each step as shown on page 3-60 of the PAP, but also the relative chronology of reclamation steps.

553.620. The applicant states that "many" of the existing highwalls will be retained. The applicant must show, perhaps on the reclamation map, which highwalls are to be retained, their approximate dimensions, and the rationale for retaining each one.

560. The applicant must include in the PAP a statement to the effect that all mining and reclamation operations will be conducted in accordance with the approved permit and the requirements of R614-301-510 through R614-301-553.

R614-301-600 Geology-(DD)

The applicant must submit a geologic map that depicts clear geologic features: faults, folds, fracture patterns, outcrops, stratigraphy, overburden thickness, hydrologic features (wells, springs, streams and ponds), and potential subsidence areas. Plate 6-1 portrays most of these features, but does not give a clear picture because too many features are superimposed on one map.

The applicant must submit four separate maps of the same scale which depict mining related features. Individual maps must depict geology and geologic features: hydrologic features such as springs, wells, streams, ground water intercept areas, lakes or ponds and monitoring sites; areas to be mined, five-year mine sequence, methods to be used, buffer zones and cross section points; potential subsidence areas, overburden and interburden isopachs, acid and toxic materials sampling sites, structures and subsidence monitoring stations.

R614-301-700 Hydrology-(TM)

722.100. Page 7-6 discusses the mine area aquifer and states "available data is not sufficient to allow conclusion to be drawn concerning seasonal variation in head." and "an adequate piezometric surface map cannot be generated with present available data." Section 722.100 requires the location and extent of subsurface water and will include, but not limited to, area and vertical distribution of aquifers, and portrayal of seasonal differences of head in different aquifers, on cross sections and contour maps. The lack of presently available data does not satisfy the requirements of the Coal Mining Rules. The required information to satisfy Section 722.100 must be included in the PAP.

722.500. The design slope for surface water diversions are given on pages 7-39 through 7-42. The drainage diversion map (Plate 7-5) has contour intervals of 10 feet and is not adequate to confirm diversion slope and water velocities. The PAP must include a diversion map with 2-foot contours or the PAP must commit to a surveyed as-built of the diversion to confirm diversion design.

723. Water monitoring sample point 6 is a surface water sample point. Page 7-15 lists the sampling point as a spring and provides the ground water sampling parameters. This error must be corrected in the PAP.

Water analyses are listed on pages 7-10 through 7-15 but lacks the name and address of the testing lab. This information must be included in the PAP.

724.100. The mine plan aquifer discussion on pages 7-6 and 7-7 can be characterized as using documentation from adjacent mines, Eccles Canyon, Winter Quarters Canyon, and laboratory tests. The PAP must include ground water quantity descriptions for the permit area and will at a minimum include approximate rates of discharge or usage and depth to water in the coal seam and each water bearing stratum above and potentially impacted stratum below the coal seam.

727. Page 3-25 states 404.5 acre-feet of water is being purchased to replace any potential water loss as a result of the Blue Blaze operation and references Figure 3-5. Figure 3-5 is not adequate to determine ownership or potential ownership of water rights. The PAP must include detailed documentation and narrative to accurately determine the time frame and probability for acquisition of the 404.5 acre-feet of water rights.

Page 3-25 states that the State Engineer of Water Rights in Price, Utah estimates maximum cumulative impact of the Blue Blaze operation to be 225.8 acre-feet of water rights. The PAP must have supportive documentation from the State Engineer, including calculations and methodology for estimating maximum cumulative impact.

Appendix 1 lists ownership of water rights in the Gordon Creek area. Water right quantities are provided only for water rights which could possibly impact the Gordon Creek No. 2 Mine. The PAP must identify the location and quantity of water rights within and adjacent to the Blue Blaze permit area.

The PAP must identify the availability and suitability of alternative water sources for existing premining uses and approved postmining land uses.

731. Page 7-28 states mine inflows of 3 gpm or greater and with sustained yield for 3 months will be included in the ground water monitoring network. The PAP must commit to including into the monitoring network any mine inflows of 5 gpm or greater with sustained yield for 30 days.

731.222.2 Page 7-56 states the sedimentation pond will be monitored per the requirements of the NPDES permit. The NPDES permit must be included in the PAP.

731.300. Provide a description of measures employed to insure that all acid-forming and toxic-forming materials are identified and disposed of to prevent water quality degradation and maintain revegetation potential. (HS)

731.600. Page 10-57 discusses the stream buffer zone determination and identifies the North Fork of Gordon Creek as an intermittent stream. This statement is supported by the water monitoring data which has recorded flow in the North Fork of Gordon Creek for 9 months of the year. The Coal Mining Rules states no land within 100 feet of an intermittent stream will be disturbed by coal mining or reclamation operation. The Division may authorize such activities closer than 100 feet if it can be found that:

*state and federal water quality standards can be met.

*water quantity and quality or other environmental resources of the stream will not be affected; or

*the area not to be disturbed will be designated as a buffer zone.

The stream buffer zone determination in Chapter 10 does not provide the required information to satisfy Section 731.600 of the Coal Mining Rules. If the operator intends to conduct coal mining activity within 100 feet of the stream, the PAP must include information to support an exception to the set-back distances.

731.730. Page 7-58 states Blue Blaze will include Beaver Creek's water monitoring points into the monitoring network after Beaver Creek has completed its monitoring network. Monitoring point 2-4-W is not identified on a map. The PAP must include a map which identified all the Blue Blaze monitoring points.

731.760. The PAP must include cross section diagrams for:

*each disturbed and undisturbed diversion

*the berm surrounding the top soil storage area

*representative points along the mine road to determine how surface drainage may be altered

733.100. Plate 7-5 shows a cross section of a silt fence with no description of where it is located. The location and site specific details must be included in the PAP for each sediment control device.

742.100. Plate 7-5 shows the sedimentation pond in the existing streambed of the North Fork of Gordon Creek. Failure in any one of several diversions could result in flow returning to the stream channel and jeopardizing the integrity of the sedimentation pond. Supportive material must be included in the PAP to justify the location of the sedimentation pond in a stream channel.

742.110. The diversion plan utilizes riprap, filter blankets, and liners in several locations. The description of the selected material is not adequate. For each location utilizing erosion control materials, a complete description of plans, specifications and methodology to support the design must be included in the PAP.

The reclamation plan in Chapter 3 states the mine site will be backfilled and regraded to restore natural drainage to the restored and riprapped channel. Straw dikes will be established and anchored to control erosion on newly graded and seeded areas. Detailed plans, specifications, methodology, maps and cross sections must be included in the PAP to determine the reclamation plan will function as intended and not contribute additional sediment to streamflow.

742.120. The PAP must include a monitoring program to reflect the success of the reclamation techniques to stabilize the area, reduce erosion, and control sediment.

The disturbed areas identified on Plate 9-2 were correlated to the drainage diversion map, Plate 7-5. As a result, a large disturbed area was identified upslope from Culvert U-3. All diversions receiving disturbance drainage must be treated. The PAP must provide plans and specifications to demonstrate the sediment control measures for the disturbed area are capable of retaining the sediment within the disturbed area. Plate 7-5 must include the boundaries of the disturbed areas.

742.220. Plates 7-5 and 7-6 show diversion D-1 entering the sedimentation pond at different locations. This discrepancy must be corrected in the PAP.

Plate 7-6 does not show any details, plans or specifications of how Diversion D-3 will function as part of the sedimentation pond. These details, plans and specifications must be included in the PAP.

742.312. The diversion ditches and culverts can be characterized as having high flow velocities and having sharp changes in direction of flow (see Plate 7-5 and pages 7-39 through 7-42). Supportive plans, specifications and methodology must be included in the PAP to determine the following areas will be stable and function as intended.

* Sharp bend in Diversion D-1 located immediately above Culvert V-1.

* Junction point of Diversions D-1 and D-2.

* Sharp bend in Diversion V-7 at north end of topsoil storage area.

* Junction point of Diversions V-4 and V-8.

* Junction point of Diversions V-3, V-4 and V-5.

* Junction at entering and exiting point of Culvert V-9.

* Exit point of Diversion V-5.

The PAP does not discuss design criteria and specifications for the following:

* The unnamed diversion which drains to Culvert V-9;

* The unnamed diversion which drains to Culvert V-1; and

* Diversion U-7 from Highway 139 to Gordon Creek.

The PAP must include plans, specifications, and methodology for above-mentioned diversions.

Page 7-39 states riprap is sized to provide channels with sufficient protection. With the diversions being characterized as having high flow velocities, supportive documentation must be included in the PAP to justify exclusion of riprap or channel lining for each diversion.

Page 7-39 referenced a riprap size of 1.25 to 1.5 feet will be used. Riprap sizing must be designed to have a gradation such that voids are filled between large riprap, flows will be reduced, erosion will be prevented, and no open pockets will form. Specifications and methodology must be included in the PAP for each location where riprap is utilized.

742.322. Plans, specifications, and methodology must be included in the PAP to determine the design capacity of Culvert U-4 and Diversion U-5 is at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion.

742.423. The mine road will affect the direction of flow of surface water drainage. Plans, specifications, and representative cross sections must be included in the PAP to assure adequate drainage control.

djh
AT