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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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801-538-5340

May 16, 1989

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

Dear Mr. Skaggs:

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

Enclosed please find an Initial Completeness Review (ICR) for the Blue Blaze Mine Permit Application Package (PAP). The deficiencies identified in this ICR must be addressed before the PAP can be determined complete and the public comment period can begin.

Please be aware that the proposed mining operation encompasses federal lands and accordingly, twelve additional copies of the PAP must be submitted for distribution to other agencies.

In order to expedite future reviews, it is recommended that the organization of the PAP be improved as follows:

1. Eliminate the introductory PAP volume, except for the Table of Contents;
2. Remove listings of UMC regulations from the PAP;
3. Consolidate all text for each regulation;
4. Eliminate redundancy;

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5. Structure chapters by technical subject matter (e.g., Hydrology, Wildlife);
6. Sequentially paginate all text throughout the PAP;
7. Incorporate all supplemental reports as appendices; and
8. Label each map with the appropriate enclosure numbers.

In closing, it is recommended that you contact me to arrange for a meeting with the technical staff to discuss the ICR and recommended changes to improve the PAP product.

Sincerely,

*Richard V. Smith*

Richard V. Smith  
Acting Permit Supervisor

djh  
Enclosure  
cc: L. Braxton, DOGM  
AT8/66-67

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

**Carbon County  
May 17, 1989**

**UMC 771.23 Permit Applications: General Requirements for Format  
and Contents-(PGL)**

The table of contents is incomplete. Please add appropriate pages for inclusion in the PAP.

(b) The applicant must identify the appropriate references (technical, etc.) used for the basis of information presented in the PAP.

(c) All technical data presented in the PAP must be identified by the (1) name of person collecting and analyzing data; (2) dates of collection and analyses; and (3) descriptions of methodology used to collect and analyze the data. Please submit this information.

(d) The applicant must state the name, address and position of officials of each private or academic research organization or governmental agency consulted by the applicant in preparation of the PAP for information on land uses, soils, geology, vegetation, fish and wildlife, water quantity and quality, air quality, and archeological, cultural and historical features. These persons or organizations should be listed in the PAP.

(e)(1) A "permit area" map must be submitted at a scale of at least 1:6000 (1" = 500'). All other maps in the plan can be at a scale no smaller than 1" = 2000'.

(e)(2) All maps and plans submitted with the PAP must distinguish among each of the phases during which underground coal mining activities were, or will be, conducted at any place within the mine plan area. At a minimum, distinctions must be clearly shown among those portions of the mine plan area in which underground coal mining activities occurred--prior to August 3, 1977 and after August 3, 1977.

**UMC 771.27 Verification of Application-(PGL)**

The PAP must include a "verification of application" that verifies, under oath (signed by a notary public), that the information contained in the application is true and correct.

### UMC 782.13 Identification of Interests-(PGL)

(e) The PAP must include a list in the narrative of the PAP of all the names and addresses of the owners of record of all surface and subsurface areas contiguous to any part of the proposed permit area.

(f) The name of the proposed mine (not only permittee's name) must be included in the PAP.

### UMC 782.15 Right of Entry and Operation Information-(PGL)

The PAP must include a complete description of all the documents upon which the applicant bases the legal right to enter. (The abstract of title dated February 22, 1980 is only a partial description.)

### UMC 782.17 Permit Term Information-(PGL)

The PAP must include the number of acres affected for each term of the permit.

### UMC 782.18 Personal Injury and Property Damage: Insurance Information-(PGL)

The PAP must include a certificate issued by an insurance company authorized to do business in the state of Utah, certifying that the applicant has a public liability insurance policy in force for the coal mining and reclamation operations for which the permit is sought. The Certificate of Liability Insurance form for the Division must be completed (see attachment).

### UMC 782.19 Identification of Other Licenses and Permits-(PGL)

The PAP states that the permits listed on page 21 of Chapter I have been or will be, requested on a timely basis as required. The list must identify the application numbers for applications that have been sent, and a tentative schedule when the other permits will be sought.

The current names and addresses of the issuing agencies must be included in the PAP (NOTE: the addresses for the Bureau of Air Quality, Bureau of Water Pollution Control, and Division of Water Rights were incorrect in the PAP). The list of permits must include the Spill Prevention Control and Counter Measure Plan required by the EPA. (NOTE: If any underground storage tanks are located on site, they must be reported to Environmental Health and a copy of the notification must be included in the PAP.)

### **UMC 782.21 Newspaper Advertisement and Proof of Publication-(PGL)**

The PAP states that "a copy of the newspaper advertisement will be entered as part of the permit after completion." As a point of clarification, the applicant must advertise after the application has been declared "complete". The applicant must advertise for four consecutive weeks, after which there is a 30-day public comment period.

### **UMC 783.12 General Environmental Resource Information-(PGL)**

The PAP must describe and identify the size, sequence and timing of the subareas of land subject to underground coal mining operations for which it is anticipated individual permits will be requested over the total life of the proposed coal mining operations.

### **UMC 783.14 Geology Description-(RVS)**

The applicant must provide adequate chemical analyses of roof and floor rock according to the Division's Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining (see attachment, Table 6).

### **UMC 783.15 Ground-Water Information-(RVS/DW)**

The applicant has not provided an adequate characterization, based on site-specific data, of ground-water resources within and adjacent to the permit area.

The applicant must conduct a site-specific seep and spring survey during the summer of 1989, to reverify the existence and identify any changes in the occurrence of springs. The survey must be conducted according to the Division's Water Monitoring Guidelines and acquire, at a minimum, one season of flow and water quality data from each source (see attachment).

The applicant must submit a piezometric surface map from borehole data. Moreover, if accessible, water level and quality data must be submitted from LMC-1, LMC-2 and LMC-4.

The applicant must also submit an adequate suite of mine inflow data as described in the Division's Water Monitoring Guidelines.

Data derived from the above-identified studies must be synthesized to provide a site-specific ground-water resource characterization that includes discussions of aquifer recharge, discharge and storage.

### **UMC 783.16 Surface Water Information-(DW)**

The applicant has not provided an adequate characterization, based on site-specific data, of surface water resources for areas within and adjacent to the permit area.

The applicant must conduct a surface water monitoring study according to the Division's Water Monitoring Guidelines, and acquire a minimum of one year of flow and water quality data. All surface water monitoring stations must be identified on a map.

The data gathered must be used to provide a site-specific surface water resource characterization.

#### **UMC 783.17 Alternative Water Supply Information-(DW)**

The applicant must provide a description, based on site-specific data, of the extent to which the proposed operations may result in contamination. Information must be supplied on an alternative source or sources of water that could be developed to replace the existing sources should contamination, diminution, or interruptions result.

#### **UMC 783.18 Climatological Information-(DW)**

The applicant must provide site-specific climatological information.

#### **UMC 783.19 Vegetation Information-(BAS)**

(a) A reference area must be established for the mesic vegetative community which will be disturbed. Reference area location must be approved by the Division. Sampling must be conducted, following the Division's Vegetation Information Guidelines (see attachment).

Reference areas for Salina wildrye and mesic communities must be permanently staked under Division supervision, using metal fence posts.

Boundaries of reference areas must be shown on a vegetation map.

The scale of Vegetation Map 1 (Enclosure 6B) is too small. Information is inadequately presented. Please consult "Vegetation Information Guidelines."

The vegetation information narrative should include a table, identifying the acreage of each of the following by vegetation type: (1) permit area; (2) area of prior disturbance; and (3) area of new disturbance and/or redisturbance. This information must agree with areas shown on vegetation and reclamation maps.

The PAP (Chapter 2, page 89) states that surface disturbance will comprise 5.5 acres. However, the planimetered area of disturbance on Enclosure 24 is 7.4 acres. Please rectify this discrepancy.

Vegetation Map 2 (Enclosure 6C) must identify all areas of prior disturbance by cross-hatching or some other means. Areas of new disturbance and redisturbance must be identified, as well as their respective vegetation types.

(b) The vegetation types within the permit area and adjacent area (1/2 mile perimeter) must be identified on a map.

#### **UMC 783.20 Fish and Wildlife Resources Information-(BAS)**

(c) The applicant must conduct an up-to-date raptor survey of the permit area and adjacent areas (1/2 mile perimeter) under the supervision of the Division of Wildlife Resources (DWR).

If nests are found, which may be jeopardized, special purpose permits may need to be obtained from the U.S. Fish and Wildlife Service.

#### **UMC 783.21 Soil Resources Information-(HS)**

The applicant must provide an Order III Soil Survey for the entire permit area. This must include a map of proper scale delineating different soils; a soil (pedon) description for each soil identified; and present and potential productivity of each soil identified.

The disturbed area soil survey is incomplete. An Order I Soil Survey is required for the disturbed area. It is unclear as to the method and intensity of the soil survey conducted by Patrick D. Collins for the proposed disturbance. Please identify the level of intensity of the above soil survey and describe the method employed to correlate soils of the mine site with published or unpublished National Cooperative Soil Surveys.

Additionally, the applicant must identify (percentage, pedon description) soil phases and inclusions within particular soil types. Limiting factors within soil types may be the result of phase and inclusion variation. Each and every inclusion and phase within a soil type proposed to be removed must be reported separately and have physical and chemical analyses performed (the Division Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, Table 1).

The soil resources information is incomplete with regard to the soil available for plant growth material for final reclamation. There is a discrepancy between the extent of new disturbance depicted on Enclosure 6 and the area identified in Enclosure 19 for topsoil removal and storage. Two omissions noted are the Topsoil Storage Area disturbance and disturbance associated with the proposed plan for burial of development waste along the old haulage road. If soils are unsuitable for reclamation, then the applicant must identify and substantiate that particular areas of soil are unsuitable.

The applicant must correlate the two sets of lab data (PAP Soil Resources Information 817.21 - 817.25, Volume I, Chapter II) by additional soil sampling. Physical and chemical analyses must be performed for all soil removed. Sample sites must be located within the area proposed for topsoil salvage and shown on Enclosure 6. Samples must be identified and collected by depth as follows: 0-15 cm, 15-30 cm, 30-45 cm, and every 30 cm thereafter. Soil sampling must occur to the depth of planned excavation. Laboratory analyses are required and methodologies recommended are those outlined in the Division's Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, Table 1 and Table 6, respectively.

#### **UMC 783.22 Land Use Information-(BAS)**

(b) Please provide additional detail of prior mining activity to comply with UMC 783.22(b)(1) through (5).

(c) Please provide a statement of land use and zoning from Carbon County.

#### **UMC 783.24 Maps: General Requirements-(PGL/DW/HS)**

##### **MAP REQUIREMENTS**

All maps required by this regulation must show the permit area. All maps must have a scale legend, north arrow and orientation (township and range). Maps must have a scale no smaller than 1" = 2000'.

(c) A map must be submitted that indicates the boundaries of all areas to be affected over the estimated life of the underground coal mining activities, with a description of size, sequence, and timing of the mining of subareas for which it is anticipated that additional permits will be sought.

(d) Old buildings are located on Enclosure 13. The permit area must be identified on that map and the current use of the buildings must be identified.

(g) No location of water supply intakes (if present) for current uses was supplied. Please add this information in the form of a map. This should include those surface waters which will receive discharges from affected areas in the proposed permit area.

#### **UMC 783.25 Cross Sections, Maps and Plans-(PGL/DW)**

Map certification requires a clear and readable stamp, signature, and date of certification.

(a) A certified map must be submitted showing elevations and locations of test borings and core samplings.

(b) Information must be given on the elevation and locations of all monitoring stations for water quality and quantity. This includes both groundwater (springs, in mine drips, and drill holes) and surface water monitoring locations. Add this information in the form of a map.

(c) The applicant must submit a geologic map that shows the distribution of lithostratigraphic units at the surface. The geologic map must also include standard strike and dip information.

(e) A map must be submitted with the location and extent of all known workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit area and adjacent areas.

(f) The applicant must submit a piezometric surface map (see comment under UMC 783.15).

(i) The applicant must provide maps identifying all existing areas of spoil, waste, coal development waste, noncoal development waste, area of predisturbance, and areas to be retopsoiled and revegetated. The Soils Map (Enclosure 6) identifies the valley bottom adjacent to the old mine ruins (foundations) as mine dumps. This is only partially true. Identify areas where undisturbed soils remain.

#### **UMC 784.11 Operation Plan: General Requirements-(PGL)**

(a) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of the operations must be submitted for inclusion in the PAP.

#### **UMC 784.12 Operation Plan: Existing Structures-(PGL)**

(a) There are existing structures on site. A description of the structures that will be used in connection with the coal mining operation must be included in the PAP.

#### **UMC 784.13 Reclamation Plan: General Requirements-(BAS/HS)**

(a) Please remove the list of seed suppliers and collectors from Chapter 8 and the DWR Plant Materials Guide from Chapters 8 and 9.

A plan for interim reclamation must be included in the PAP. A seed mix and discussion of reclamation techniques must be provided. The statement in Chapter 3, page 92, that "full" reclamation will be employed for interim reclamation is confusing and inadequate.

(b)(1) The PAP must include a reclamation timetable like that in Appendix A of the Division's "Revegetation Guidelines for Utah Coal Regulatory Program."

(b)(4) The applicant must provide designs, cross sections, dimensions and maximum slope for the proposed topsoil storage area. Enclosure 19 indicates the storage of 8,800 yards<sup>3</sup> within the topsoil storage area. The PAP text indicates (Soil Resources Information, UMC 817.21 - 817.25, Volume I, Chapter II) the removal and storage of 10,327.6 yds<sup>3</sup>. Please clarify this discrepancy.

The applicant must provide an isopach map delineating depth of topsoil removal and redistribution, and the aerial extent of each depth category.

The applicant must provide an adequate timetable for completion of each major step in the reclamation plan, and any contemporaneous reclamation planned (include topsoil stockpile reclamation and development waste disposal site reclamation).

The applicant must provide a topsoil mass balance sheet to include: volume of topsoil removed from each area of disturbance and the volume of topsoil redistributed for each area of disturbance.

The following information must be included in the PAP to meet the requirements of UMC 817.21 - 817.25.

1. Methods and equipment employed to ensure proper implementation of a soil removal plan:
  - (a) vegetation removal, and
  - (b) method utilized to exact depth of soil removal.
2. Methods and equipment employed to ensure proper implementation of a soil storage plan:
  - (a) erosion protection (berm, mulch, contour-furrowing, seed mixture, etc.).
  - (b) compaction mitigation, and
  - (c) fertilizer/amendments to ensure revegetation success.
3. Methods and equipment employed to ensure proper implementation of a soil redistribution plan:
  - (a) compaction mitigation,
  - (b) soil scarification (i.e., depth, machinery),
  - (c) method used to ensure proper topsoil redistribution depth,
  - (d) fertilizer assessment sampling plan,
  - (e) management to prevent erosion between topsoil redistribution and reseedling,
  - (f) time between regrading and retopsoiling, and
  - (g) seedbed preparation.

Additional information may be required subsequent to initial review of above requested information.

(b)(5)(i) The PAP must commit to seeding and planting according to the provisions of UMC 817.113.

The PAP must state that neither planting schedule nor seed mix will be altered without prior written approval from the Division. The reclamation plan may not vacillate as suggested in Chapter 3, page 6.

(b)(5)(ii) Please replace the present seed mixes with two mixes -- one for xeric and the other for mesic sites. Seed mixes must consist of commercially available native species, adapted to the site and having forage and cover value for wildlife. The applicant should refer to Section C on "species selection" in the Division's Revegetation Guidelines (see attachment). The seed mix table must specify pounds per acre and pure live seed/ft<sup>2</sup>. A provision should be made for supplemental planting of trees and shrubs along water courses.

(b)(5)(iii) Two seeding methods are proposed in Chapter 3, pages 7 and 8. Please clarify when one method will be used over the other. There appears to be a contradiction.

When seeds are hand broadcast, the PAP must commit to raking seeds into the soil.

(b)(5)(iv) Mulch must be applied over all areas to be reclaimed, unless field trials demonstrate better results without. The PAP must identify mulch type, rate of application, and methods for spreading and anchoring.

(b)(5)(v) The applicant must provide a plan for weed control on mine operation areas, topsoil stockpiles and reclaimed areas.

(b)(5)(vi) The PAP must describe the methods, schedule and standards used to determine revegetation success, per UMC 817.116.

The monitoring schedule for final reclamation should be similar to that in the Division's Revegetation Guidelines, Table 1.

(b)(7) The applicant must provide a map clearly defining areas of contemporaneous reclamation, waste removal and disposal.

The applicant must provide adequate physical and chemical analyses (constituent outlined in the Division's Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, Table 6) of coal waste to be buried and cover material used to backfill disposal sites (i.e., down-cast material, excess cut material from road construction). Additionally, the applicant must provide volume estimates of material to be disposed of, storage capacity of disposal site and volume of cover material.

The applicant must provide a description of measures employed to insure that all acid-forming and toxic-forming materials are identified and disposed of in accordance with UMC 817.48 and UMC 817.103.

**UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance-(DW)**

(a)(1) The applicant has provided a description for the implementation of siltation structures. However, the applicant must also provide plans, locations, details, and calculations. The location of each structure must be identified on Enclosure 13.

(a)(2) Information on the rights of present users of both surface and groundwater must be included in the PAP. Please add this information in the form of a map which includes the location of all wells and points of diversion.

(a)(3) A detailed description for measures to protect both surface and ground waters must be included in the PAP. This involves monitoring of all appropriate springs within the permit and adjacent areas to ensure the protection of quantity and quality. An alternative source must be identified where protection of quality cannot be ensured.

(a)(4) The applicant must demonstrate that all mine openings will be designed such that water quality is protected. This means all openings will be designed to prevent gravity discharge of mine water.

(b)(3) The applicant must follow the operational and post mining portion of the Division's Water Monitoring Guidelines for designing a water quality monitoring system. Contact the Division if any consultation is needed.

(c) A determination of the probable hydrologic consequences must be included in the PAP. This includes areas adjacent to and within the permit boundaries.

(d) A detailed description, including drawings, must be included in the PAP for all permanent entry seals and downslope barriers designed to ensure stability under anticipated hydraulic heads after mine closure.

**UMC 784.15 Reclamation Plan: Post Mining Land Use-(BAS)**

The applicant must provide a detailed description of the proposed postmining land use. The PAP must include a discussion of the capability of the reclaimed land to support the land uses and the relationship of the proposed postmining land use to existing pre-mining land use. Additionally, the applicant must provide a detailed description as to how the proposed postmining land use will be achieved.

**UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams and Embankments-(DW)**

The applicant has not submitted sufficient information regarding sediment control structures to determine the PAP complete. Please provide all required design information described under this regulation.

**UMC 784.17 Protection of Public Parks and Historic Places-(PGL)**

The applicant must provide an explanation as to why this section is not applicable.

**UMC 784.18 Relocation or Use of Public Roads-(PGL)**

The applicant must provide agreements with appropriate landowners that insures the interests of the public and landowners that are affected by the use of the public road will be protected.

**UMC 784.19 Underground Development Waste-(PGL)**

The PAP states that the 548 cubic yards of development waste rock will be used as backfill in the old haulage grade, and Figure 6 (Chapter II) and Enclosure 20 are referred to as "burial sites." These figures must be consistent. A description of how the approximate yardage was quantified must be included in the PAP. A description of how the requirements of UMC 817.71 will be met must be included in the PAP.

**UMC 784.20 Subsidence Control Plan-(RVS)**

The applicant must provide a survey of renewable resource lands (see definition under UMC 700.5) and a discussion of whether subsidence could cause material damage or diminution of reasonably foreseeable use of such renewable resource lands.

The applicant must provide a detailed description of measures to be taken to prevent and/or mitigate the effects of material damage or foreseeable use of renewable resource lands.

**UMC 784.21 Fish and Wildlife Plan-(BAS)**

(a)(1) Itemize all DWR mitigation recommendations which will be followed, and incorporate these with commitments made in Chapters 2 and 3, on pages 89 and 90. The aforementioned commitments lack sufficient detail. Please provide.

(b)(3) The applicant must provide discussions of depth of overlaying strata, angle of draw, and monitoring plans, as these relate to undermining of Gordon Creek and Beaver Creek.

The applicant must provide a discussion of the measures taken to reduce impacts and restore environmental values for the intermittent drainages, as a result of culvert installation and stream channel diversion.

#### **UMC 784.22 Diversions-(DW)**

The applicant has not provided any details, maps, or cross sections for any stream channel diversion, or other diversion found within the permit area. Enclosure 13 lists several, but no details were found. All detailed design information must be submitted prior to the Division's approval.

#### **UMC 784.23 Operation Plan: Maps and Plans-(PGL/DW)**

(b)(1) A map must be included in the PAP that shows the area of land to be affected within the proposed permit area, according to the sequence of mining and reclamation.

(b)(3) A map must be included in the PAP that shows the area for which a performance bond will be posted.

(b)(5) The noncoal waste storage area must be shown on a map for inclusion in the PAP.

(b)(6) No plans, maps, or cross sections were found for the water diversion, collection, conveyance, treatment, storage or discharge facility to be used. If these structures are not pertinent in this particular case, please provide a statement for inclusion in the PAP.

#### **UMC 784.24 Transportation Facilities-(PGL)**

The PAP must contain a detailed description of each road and conveyor to be constructed, used and maintained within the proposed permit area. A map and cross sections must be included with specifications for each road width, road gradient, fill embankment, culvert drainage ditch, and drainage structures.

(b), (c) and (d) The PAP must address these sections of UMC 784.24, if appropriate.

djh  
Attachments  
AT82/1-12  
5/16/89