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State of Utah
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DIVISION OF OIL, GAS AND MINING

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February 23, 1998

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

FROM: Wayne H. Western, Senior Reclamation Specialist *WHW*

RE: Bullet List of Deficiencies, Canyon Fuel Company, LLC, Dugout Canyon Mine, PRO/007/039, File #2, Carbon County, Utah

512 Certification

512.100 Cross Sections and Maps (Page 5-1 to 5-3)

- **Previously Mined Areas.** On page 5-1 through page 5-3 the Applicant gives a history of coal mine in Dugout Canyon. That information is not relevant to map certification and should be moved to a section of the PAP that deals with previously mined areas (Section 521.111) (clear and concise)
 - The Applicant moved the history of coal mining in Dugout Canyon from Section 521.100 of the PAP.
 - **The Applicant met the minimum requirements for this deficiency.**

513.400 Refuse Pile (Page 5-7)

- The Applicant states "The short-term nature of this storage precludes the need for special precautions related to spontaneous combustion of the sorted materials." Some Utah coal will ignite due to spontaneous combustion within 24 hours of exposure to air. The Division does not agree with that statement. The Applicant must either demonstrate that spontaneous combustion will not occur or remove that statement.
 - The Applicant removed that statement from the PAP.
 - **The Applicant met the minimum requirements for this deficiency.**

Existing Surface and Subsurface Facilities and Features (Page 5-11)

- Change "in accordance with R645-301-521.123 and R645-301-124" to "n accordance with R645-301-521.121 and R645-301-521.122." The Applicant could also remove the sentence "Hence, a map of these nonexistent facilities is not provided in accordance with R645-301-

521.123 and R645-301-124.” (Clear and concise)

- The Applicant made the changes to the regulation references.
- **The Applicant met the minimum requirements for this deficiency.**
- Other existing roads within the disturbed area and permit area are privately owned and maintained roads (see Plate 4-1). The general locations of roads within and adjacent to the permit area are shown on Plate 5-5.
 - Plate 5-5 does not identify public roads (roads are not identified as public or private).
 - The Applicant identified the public roads on Plate 5-5
 - **The Applicant met the minimum requirements for this deficiency.**
 - Plate 5-5 does not show the mine access road continuing past the disturbed area boundary.
 - The Applicant revised Plate 5-5 so that the road up canyon from the disturbed area is shown.
 - **The Applicant met the minimum requirements for this deficiency.**
 - Why site Plate 4-1 and then Plate 5-5 when both plates contain the same information? Siting one plate avoids confusion.
 - The Applicant now only sites Plate 5-5.
 - **The Applicant met the minimum requirements for this deficiency.**
 - The Applicant does not show on any map the location of where debris encountered during construction would be disposed.
 - On page 5-14 of the February 1998 response to deficiency list, Section 521.100, the Applicant states “Durable, rock-type debris may be incorporated into the construction fill if it does not compromise the integrity of the fill. Other debris will be salvaged or disposed of at a permitted off-site facility.”
 - **The Applicant met the minimum requirements for this deficiency.**

Mining Sequence and Planned Subsidence (Page 5-13)

- Plate 5-5 shows the general areas to be mined, but does not show details such as main entries and panels. The Applicant needs to provide the Division with a detailed map of the proposed mine plan.

- On page 5-15 of the response the Applicant states "Maps showing proposed mine details, such as mine entries, pillar locations, etc., will be provided to the Division following their submission to and approval by MSHA."
- **The Applicant met the minimum requirements for this deficiency.**
- In conversations with the Division the Applicant stated that they will use longwall mining methods. The mine plan shown on Plate 5-5 is for room-and-pillar mining. If the Applicant plans on using longwall mining then they must revise the mine maps
 - The Applicant states that the mine subsidence maps will be valid whether mining is done with room-and-pillar methods or longwall. The room-and-pillar mine plan is based on second mining so the extraction ratio will be similar to room-and-pillar. The Division considers the current subsidence map adequate.
 - **The Applicant met the minimum requirements for this deficiency.**

Land Surface Configuration (Page 5-14)

- Plate 5-2C
 - The plate must contain a legend for each line type. In the upper right-hand corner of Plate 5-2C there is a wide black line that is not clearly marked.
 - The lines on Plate 5-2C have been identified.
 - **The Applicant met the minimum requirements for this deficiency.**
 - The assumed pre-SMCRA boundaries should be clearly labeled as such. The term pre-1980 is confusing. The boundary could be labeled assumed pre-SMCRA boundaries as map in 1980.
 - The assumed pre-SMCRA boundaries are shown and labeled on Plate 5-2C.
 - **The Applicant met the minimum requirements for this deficiency.**
 - The Applicant needs to clarify if the areas labeled "areas of disturbance pre-1996" is a pre or post SMCRA disturbance.
 - The Applicant shows the areas that have been disturbed since 1980 and prior to 1996 on Plate 5-2C. No coal mining was conducted in those areas.
 - **The Applicant met the minimum requirements for this deficiency.**
 - Plate 5-2C must show the location of all culverts and diversions.
 - The Applicant showed the location of the existing culverts and diversions on Plate 5-2C.
 - **The Applicant met the minimum requirements for this deficiency.**

- On page 5-16 the Applicant describes how refuse is to be disposed, petroleum spill response and eliminating wet concrete from entering a stream channel. That information does not directly relate to requirements of R645-301-521.160 (Maps and Cross Sections of the Proposed Features of the Proposed Permit Area). That information should be removed from this section of the PAP and placed in sections that deal with those subjects.
 - The Applicant removed the above-mentioned information from this section.
 - **The Applicant met the minimum requirements for this deficiency.**

Transportation Facilities (Page 5-17)

In the PAP the Applicant states that Figure 5-2 shows a typical cross section of the primary roads. There are several areas where the typical cross section does not represent on site conditions. For example there are areas where the slope between the road and the stream is almost vertical instead of a 2 to 1 slope.

- The Applicant needs to supply the Division with cross sections that show different slope conditions that are associated with the main haul road.
- The Division withdrew that request.
- **This deficiency is no longer valid.**

Coal Recovery (Page 5-19)

- State Lands wants a general commitment that mining will be conducted so that access to the Gilson Seam is protected.
 - The Applicant states "Mining in the Rock Canyon Seam will be conducted in a manner that protects future access to the Gilson Seam."
 - **The Applicant met the minimum requirements for this deficiency.**

Mining Methods (Page 5-20)

- The Applicant states in the PAP that mining will be done using room-and-pillar methods. In conversations with the Division the Applicant has stated that they intend to use longwall methods. Incorporating longwall methods will require a change to the MRP. If the Applicant is planning on using longwall methods then they should incorporate that mining method into the PAP.
 - The Applicant states that they will most likely switch to longwall mining in the future. They want to process this permit application under the assumption that mining will be conducted using room-and-pillar methods. The Applicant wants to process the permit as soon as possible and assumes that changing the mining method will increase the time the

Division needs to process the permit. Since development work and early production will most likely come from room-and-pillar mining the Division will process this applicant under the assumption that room-and-pillar methods will be used. If the Applicant decides to use longwall mining methods in the future they must amend the mining and reclamation plan.

- **The Applicant met the minimum requirements for this deficiency.**

Anticipated Effects of Subsidence (Page 5-28)

- The locations of three active raptor nests in Section 16 are shown on Plate 3-2. Plates 5-5 shows that mining will be conducted within 500 feet of the nests in 2001. Plate 6-4 shows the overburden thickness in that area is 800 feet. The Applicant assumes that the angle-of-draw will be 35°. The area of potential subsidence is projected to include the raptor nest. **The Applicant needs to address how subsidence damage to the raptor nests will be controlled.**
 - The Applicant does not want to show the location of rapture nests on Plate 5-5, because the location of a raptor nest is confidential. The Division wants the location of the raptor nests and subsidence boundaries on one map. A compromise could be to place the subsidence boundaries on Plate 3-3.
- **The Division and the Applicant need to discuss this issue.**

526 Mine Facilities (Page 5-30)

- The Applicant is required by R645-301-526.100 to include a narrative explaining the construction of the mine structures and facilities. That information was not included in the PAP.
 - The Applicant included a narrative in Section 536 that explains the construction of the mine structures and facilities.
- **The Applicant met the minimum requirements for this deficiency.**

526.100 Mine Structures and Facilities (Page 5-30)

- The Applicant states "No buildings exist at the mine surface, therefore no buildings will be used in connection with or to facilitate this proposed coal mining and reclamation operation." The sentence states that no buildings will be constructed or used at the mine site, which is false. The Applicant should rewrite the paragraph so that it states that the only existing structure at the site is a UP&L distribution line that will be upgraded. The Applicant must state how the distribution line will be upgrade to meet the performance standards.
 - The Applicant rewrote the sentence so it now reads that no existing buildings will be used. The Applicant satisfied the Division's concern about the power lines being a preexisting

structure.

- **The Applicant met the minimum requirements for this deficiency.**

- An existing UP&L distribution line exists at the site. The Applicant must state how the power line will be modified.
 - The Division no longer considers the power lines to be an issue.
 - **The Applicant met the minimum requirements for this deficiency.**

- The Applicant states “A description of the location of the existing county road within the permit area is provided in Section 521.100 of the PAP. It is unknown when this road was initially constructed. This road is currently an unimproved dirt road which will be modified by the County (see Section 527.200).” R645-301-526.116 deals with protecting the public when mining occurs within 100 feet of a public road or when a public road will be relocated. The information in this section does not address those two points. This section should be rewritten. The Applicant should state that no mining will occur within 100 feet of a public road except where the mine access road joins the right-of-way and that the Applicant will not relocate a public road. All information not relevant to this section should be removed.
 - The Applicant addressed those two issues in the February 1998 submittal. The Applicant stated that “No coal mining and reclamation operations will be conducted within 100 feet of the right-of-way line of this or any other public road, except where mine access or haul roads join that right-of-way.” Furthermore, as indicated in Section 521.100 of this PAP, it is anticipated that the county road will not be relocated within the permit area.
 - **The Applicant met the minimum requirements for this deficiency.**

527 Transportation Facilities

527.100 Road Classification

- The Applicant must state that dirt roads that are in the permit area and will be used only for monitoring activities will not be classified.
 - The Applicant stated in the February 1998 submittal that “The private dirt roads outside of the disturbed area but within the permit area will not be classified. These unimproved dirt roads are owned and maintained by Canyon Fuel Company LLC. They may be used by SCM for access to the lease area surfaces for the collection of monitoring data (environmental and subsidence data) as well as other uses deemed appropriate by the landowner.”
 - **The Applicant met the minimum requirements for this deficiency.**

- Design information such as grade roads should be placed in Section 527.200. Placing the information in Section 527.200 makes the plan clear and concise.
 - The Applicant removed the design information from Section 527.100 of the PAP and placed it in Section 527.200.
- **The Applicant met the minimum requirements for this deficiency.**

527.200 Description of Transportation Facilities (page 5-32)

- A detailed description of the conveyors at the mine site must be included. R635-301-527.200
 - The Applicant cross-referenced Section 521.100 of the PAP for a description of the conveyors. While the Division prefers to have the information in Section 527.200 the cross-reference is considered adequate.
- **The Applicant met the minimum requirements for this deficiency.**

Road Specifications (Page 5-32)

- Include a cross section that is parallel to the mine road. That cross section must show the grade and distance of each section of the mine road. R645-301-527.200
 - The Division withdrew this request.
 - **The Applicant met the minimum requirements for this deficiency.**
- Cross sections that show the road and the culverts. R645-301-527.200
 - The Applicant showed the road and the culverts on Plate 5-2B.
 - **The Applicant met the minimum requirements for this deficiency.**
- The last paragraph of this section deals with the dirt roads in the permit area that will be used for data collection and monitoring. This paragraph should be moved to Section 527.100 since it deals with road classification. (clear and concise)
 - The Applicant moves the paragraph to Section 527.100.
 - **The Applicant met the minimum requirements for this deficiency.**

Drainage way Alterations

- The Applicant states that the culverts are needed to allow coal trucks to enter and leave the

site. The Applicant needs to state why the culverts are needed for truck transportation. Earlier plans did not require culverts for truck access (clear and concise)

- The Applicant states that the culverts are needed to provide space for equipment and material storage, increase snow storage area, parking area and increase the traffic safety. **The Division reviewed, the information put has not yet made a finding about whether the culverts should be allowed.**
- **The Applicant met the minimum requirements for this deficiency. The Division has not determined if the culverts are needed.**

528.300 Spoil, Coal Processing Waste, Non-Coal, and Mine Development Waste

Burning and Burned Waste Utilization (Page 5-37)

- The Applicant states "Due to the temporary nature of this storage, there will be no significant potential for this waste to spontaneously combust." Some Utah coals are subject to spontaneous combust in less than 24 hours from being exposed to the atmosphere. The Applicant must either show that the coal will not be subject to spontaneous combustion or remove that phase from the PAP.
- The Applicant removed the comment about the coal not being subject to spontaneous combustion.
- **The Applicant met the minimum requirements for this deficiency.**

Non-coal Mine Waste (Page 5-37)

- The Applicant states "No non-coal (non-waste rock) waste other than durable, non-acid and toxic forming, rock-type construction materials (e.g., cinder blocks) will be permanently disposed of within the permit area. Such waste will not be permanently disposed of in the permit area, but will be temporarily stored either in a dumpster or in the temporary waste-rock storage area." (Clear and concise) Does such waste refer to cinder blocks or non-coal waste that will be shipped to a landfill?
- The Applicant states "Non-coal (non-waste rock) waste will be temporarily stored at the site prior to permanent off-site disposal either in a dumpster or in the temporary waste-rock storage area." Off-site disposal will be only at sites which are permitted by appropriate regulatory authorities to accept such waste.

R645-301-528.333 states "**At no time will any noncoal mine waste be deposited in a refuse pile** or impounding structure, nor will any excavation for a noncoal mine waste disposal site be located within eight feet of any coal outcrop or coal storage area." The Applicant will not be able to store noncoal waste at the temporary waste rock site. The Applicant needs to revise this section of the PAP.

- **The Applicant NOT met the requirements for this deficiency.**

532 Sediment Control (Page 5-40)

- The Applicant states “Contemporaneously reclaiming areas suitable for such reclamation.” The Applicant needs to state what areas will be contemporaneously reclaimed.
 - The Division withdrew this request.
 - **The Applicant met the minimum requirements for this deficiency.**

534.300 Primary Roads (Page 5-44)

- The Applicant states that the haul road has a minimum safety factor of 1.3 and then cites the slope stability study done for the sediment pond. The slope stability study was done for the sediment pond and not for the haul road. The failure circles are from the slope’s toe to the pond. The Applicant needs to look at failure surfaces that are from the road to the slope’s toe. That investigation needs to be included into Appendix 5-4.
 - The Applicant submitted the requested information.
 - **The Applicant met the minimum requirements for this deficiency.**

540 Reclamation Plan

542.200 Plan for Backfilling, Soil Stabilization, Compacting and Grading (Page 5-53)

- The Applicant states “Backfilling to remove highwalls to the extent possible within the objectives noted above (cut and fill balance, site stability, and erosion control).” The term “to the extent possible” is confusing and should be eliminated. (Clear and concise)
 - The Applicant removed the phrase “to the extent possible.”
 - **The Applicant met the minimum requirements for this deficiency.**

Building Demolition

- The Applicant states “If foundations will not interfere with regrading activities, they will be left in place for on-site burial.” The Applicant must show what foundations will be left in place. (Clear and concise)
 - **The Applicant met the minimum requirements for this deficiency.**

542.800 Estimated Cost of Reclamation

- The Division is not able to verify the Applicant’s reclamation cost estimate.
 - The Applicant has not provided the Division with cross section of adequate detail for the

Division to determine cut and fill quantities.

- The Applicant did not provide the Division with a detailed plan that shows how material from the cut areas will be transported to fill areas. The Division is unable to determine where cut material in cross section Z-Z' will be transported to and where the fill material in cross section Z-Z' will come from. That information is needed to determine haul distances and grades.
- Attached are copies of worksheets that the Division uses to calculate earthwork costs. The Applicant needs to supply the Division with enough information to fill out the work sheets.
- The Applicant supplied the Division with information needed to calculate earthwork costs. The Division will try to determine the earthwork costs based upon the Applicant's information.
- **The Applicant met the minimum requirements for this deficiency.**