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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
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December 23, 1997

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Susan M. White, Senior Reclamation Biologist *SMW*

RE: Round III Permit Application, Canyon Fuel Company, LLC, Dugout Canyon Mine, PRO/007/039-97A, File #2, Carbon County, Utah

## SUMMARY:

Response to the Round I permit application deficiencies were received by the Division May 21, 1997 and the Division responded August 1, 1997. Round II was submitted by the Permittee September 9, 1997 and the Division responded October 28, 1997. The following deficiency list is a response to the October 28 submittal. The initial permit was submitted March 15, 1996. So many deficiencies remain unanswered in the permit application that only a list of deficiencies have been submitted in lieu of a technical analysis.

## LIST OF DEFICIENCIES

### General Contents

**R645-301-120.** Canyon Fuel Company is applicant, permittee and operator. The application refers to SCM as the Operator, this should be changed as pages are modified and replaced with other revisions.

### Soils

**R645-301-234.200.** Some of the topsoil from Dugout will be located at the Soldier Canyon Mine. Does the possibility exist that Soldier Canyon Mine will be reclaimed prior to Dugout and if so how will the reclamation effect the Dugout topsoil?

**R645-301-521.165.** Map of where saved (geotextile) soils are located.

**R645-301-242.** If the areas of in place covered topsoil (geotextile) are to steep to remove soil then how will the topsoil be loosened in revegetation efforts so that it remains on the slope?

Vegetation removed from the site during or prior to topsoil stripping should be placed on and in the topsoil stockpile.

### **Biology**

**R645-301-353.110.** How will species diversity be sampled in the spring of 1998? How will species diversity be demonstrated for bond release.

**R645-301-322.200.** Dugout Canyon has high value habitat, the permit must recognize the riparian area and cliff escarpments as such.

**R645-301-356.** Vegetation success standards remain confusing and contradictory.

Reference areas

Prelaw disturbances, postlaw disturbances, post exploration disturbances

Many different baseline studies

Many different names of vegetation communities referring to the same vegetation communities

**R645-301-356.110.** A detailed methods section for the Patricia Johnson study is required.

**R645-301-356.120.** Deciduous Streambank, Shrub/Grass/Juniper and Mixed Conifer communities to be disturbed require baseline sampling prior to permit issuance.

**R645-301-323.400.** Plate 3-1A and Map MNS-1 contradict.

**R645-301-330.** The permit commits to disturb minimum area required, yet 1000' of culvert is beyond that which is necessary for the proposed operation. Only that area necessary for the current mine can be culverted.

**R645-301-358.200.** Covering raptor nests prior to subsidence is not approved. Avoidance will be discussed on a case specific basis. Losing raptor nests to subsidence is not a given right of permit issuance, avoidance is the highest priority.

The subsidence (Plate 5-5) and cliff escarpment maps (Plate 3-3) show that escarpment failure

from subsidence is likely when mining in Section 16 in 2001. This is where several golden eagle nests are located (Plate 3-2). Site specific information is request on the expected subsidence and effects it may have on the nests. Details of the exact locations of the nests are needed - are the nests located on a cliff escarpment?

**R645-301-333.** Need commitment that during construction employee's (including contractors) and equipment will stay within the disturbed area boundary and not just requested to do so as stated in the permit. Additionally all loading, unloading and staging of materials and equipment will be done within the disturbed area boundary.

**R645-301-342.100.** Enhancement features during reclamation should include regrading the creek to a usable configuration. Current maps and cross sections are inadequate to determine existing conditions and proposed reclaimed configurations. Landscape diversity of the reclaimed Dugout Creek stream channel should be at least the same as premining landscape diversity.

**R645-301-355.** No detail is provided for seeding the area where the geotextile was used. Commit to using erosion control matting on 1.5:1 slopes. No dozer tracking perpendicular to the slope for final surface preparation, always on the contour..

**R645-301-341 and 342.** Specify size of transplants for riparian area. Cottonwoods should be at least 15 gallon containers. Provide detail for planting of riparian area, willows, cottonwoods, river birch, should be planted to water table. This usually requires an auger.

Need to know average high and low water marks in channels for details on plantings.

Where are rock faces that will not be planted, where is bedrock in channel?

## **Land Use**

**R645-301-412.110.** Insufficient details concerning the existing road and postmining road have been provided. Accurate maps as required by R645-301-521.150 and 542.200 are needed.

## **Chapter 5**

**R645-301-526 and 541.400.** Need sequence for construction and reclamation of site. When will topsoil be remove and where placed. Sediment pond installation, leach field, culvert, etc. Add geotextile removal to section 542.200.

**R645-301-521.150 and R645-301-542.200.** Plate 5-2A is confusing in that contour intervals are 2', 5', 10', and 25'. All contour intervals should be the same and at minimum at 5' intervals, but preferably 2' intervals. Is the disturbed area located at the base of the pad on the substation pad? Is the area above the substation considered a highwall?

Plate 5-2B does not show the culvert on the right fork, nor disturbed area boundaries.

Where are 1.5:1 slopes located in reclamation?

All contour intervals should be the same and at minimum at 5' intervals.

Plate 5-4 level of detail is insufficient to evaluate the grading and how the reclaimed area will support the postmining land use? Need detail of creek side slopes, slopes should be at a grade usable for wildlife and livestock. Disturbed area boundaries should be marked on each cross section.

**R645-301-526.115.** Is the leach field to be located on a side slope? What will be constructed first the topsoil pile or the leach field.

**R645-301-142 and 356.250.** Plate 5-2C shows the "area of disturbance pre-1996" this designation should also state that the disturbance was not subject to the requirements of R645-301 through R645-302. The map should show the area subject to the requirements of R645-200 through R645-203.

**R645-301-525.150.** How will subsidence affect the golden eagle nest sound in Section 16 scheduled to be mined in 2001.

## **Hydrology**

**R645-301-731.720** Plate 7-5 doesn't show topsoil, berms, silt fences. How does UD-1 get into Dugout Creek? What are sediment control for areas below pond? Where is Plate for reclamation hydrology?

**R645-301-742.312** Permit should include stream alteration permit.

**R645-301-743** Operation phase shows ponds or impoundment where culvert has been buried, is this prudent or necessary, have they been designed?

**R645-301-750** How is Permittee minimizing impacts to hydrologic balance when 1000' of

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stream is being unnecessarily culverted.

**R645-301-742.313**

The reclaimed stream channel should be enhanced. Appendix 7-11 show typical of uniform rip rap installation (d-50) of 12". The design does not show how diversity of the channel will be achieved. Diversity of landscape will promote diversity in the flora and fauna which existed prior to mining.

Page 7-92 states that the reclamation channels will be constructed after grading but prior to topsoil placement. During grading operations channels are constructed first and all grading activities proceed from that baseline. This method ensures that drainage channels will not be located on high points and that all drainage will flow to the channel.

Where is bed rock in channel and how will the rip rap be keyed into the bed rock?