



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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November 12, 1998

To: File

Thru: Joe Helfrich, Permit Supervisor-Compliance *JH*
 Daron Haddock, Permit Supervisor-Permitting

From: Peter Hess, Reclamation Specialist III *PHH*

RE: West Ridge PAP, Round Two, West Ridge Resources, Inc., West Ridge Mine,
PRO/007/041, Folder #2, Carbon County, Utah

SUMMARY:

The Round two response to Round one deficiencies was received in the SLO on October 7, 1998. Same was received in the PFO on or about October 28, 1998. This review will address the responses submitted as a result of the Round one deficiencies.

TECHNICAL ANALYSES:

OPERATION PLAN

R645-301-526.200 Utility Installation and Support Facilities

RECLAMATION PLAN

R645-301-541.300 Retention of Surface Structures as Part of Approved Post Mining Land Use

Analysis:

The applicant has revised Map 5-5, Surface Facility Map to show the 46 KV powerline entering the disturbed area perimeter 100 feet NNW of the Carbon County road turnaround. The location of the line has been shifted from the initial submittal to retain it within the disturbance from entrance to substation. The reclamation requirements of the R645 regulations require the return of all mining related disturbance to approximate original contour. Hence, the Utah Power and Light line will be reclaimed at least up to the disturbed area perimeter; this will leave approximately 1,200 feet of high voltage transmission line between the disturbed area perimeter and the West Ridge Mine permit boundary. The surface management agency for most of the acreage involved in the right of way for the powerline, the six inch water line, and any telephone

lines is the United States Bureau of Land Management. As SMCRA and the State of Utah Division of Oil, Gas, and Mining theoretically have no jurisdiction outside of the Mine's permit area, it is felt by this reviewer that it is up to the surface management agency responsible (for the powerline, 70 acres of right-of-way are managed by the USBLM, 5.48 are managed under Utah SITLA, 10.04 acres are privately owned) to establish a reclamation agreement or to approve the retention of the aforementioned utilities as part of the approved post mining land use. Additional acreages will be impacted by the waterline and telephone communications

Findings:

Some maps show a 46 KV line; some maps show a 69 KV line. Although this is insignificant, the maps should be consistent, since both are P.E. certified by Mr. Dan Guy. The plan indicates that the powerline, which will be installed and maintained by Utah Power and Light up to the substation (which is 1180 feet inside the disturbed area perimeter) will be reclaimed. In order to return the disturbed area to approximate original contour, the support structures for the transmission lines will have to be removed. There are two possible options here:

- 1) The permittee will purchase the powerline from the point of disturbed area entrance to the substation, and have a maintenance agreement with the Utility company, or
- 2) UP & L will retain ownership of the line up to the substation, but a legal agreement will be in place which will allow the permittee to reclaim the line up to the point where it enters either the disturbed area boundary or the permit area.

This agreement was mentioned in the first deficiency response to the permittee, but as far as can be determined, has not been addressed in the 9/9/98 response. Same is deficient in that respect.

As far as reclamation of the utilities outside of the permit area is concerned, it is up to the surface management agencies involved to determine the post-mining status of same.

SEDIMENT CONTROL MEASURES

Page 5-31, paragraph 3, (9/9/98 response)

Regulatory Reference R645-301-742, Sediment Control Measures

Analysis:

Page 5-31 refers to temporary sediment control measures (sediment traps, berms, silt

fences, straw bales) will be constructed in the downstream end of the proposed mine yard area. Appendix 5-5 is referred to as containing details for the bypass culvert and the mine yard construction, and contains a cross section of a temporary sediment trap which is to be implemented, (Attachment 3). This temporary sediment trap will be installed where Cell "C" (lower cell of tri-cell sediment pond) is to be constructed, and will be used for two months, terminating use before the thunderstorm season. Two silt fences (for which a verbal design is included) will be installed in the "C" Canyon drainage before any other work is initiated. A third will be constructed at the toe of the outslope of the temporary sediment impoundment. Access will be maintained such that the maintenance of these fences can be performed as necessary.

Attachment 3 shows a cross section of the damming embankment, and not the impoundment in its entirety; no indication is made of the design storm, maximum sediment load, etc. The design should be P.E. certified. Finally, the construction process to convert this temporary impoundment to the approved design for Cell "C" should be discussed.

The temporary sediment trap must meet all design requirements of R645-301-733.210, and 743.

In order for any work to be conducted within the "C" Canyon drainage (the right fork of "C" Canyon is classified as an intermittent drainage), the Division must grant the applicant a variance from the requirements of 731.610 upon finding that the requirements of 731.611 and 612 have been fulfilled.

Designs for the sediment collection traps to be implemented in the "C" Canyon drainage post-pond but pre-Phase II bond release must be incorporated, as well as a plan to maintain them until Phase II is granted.

Map 7-4, Sediment Pond, Plan and Profile (revised) now shows a secondary riser type spillway, instead of the original design which showed an open channel spillway dumping into the undisturbed bypass culvert. The original submittal, by definition, defeated the purpose of the emergency or "open" channel spillway. The new design incorporates a secondary discharge spillway which is capable of handling a 100 year 6 hour storm event, as allowed by R645-301-742.222.

The mine office parking area down canyon of Cell "C" of the parking area was designed in the original application to obtain treatment through an ASCA. This method, in consideration of the fact that this area is immediately adjacent to a sediment pond cell "C" did not utilize best technology currently available. The revised submittal (response to Round 1) now utilizes a drainage retention basin having a capacity of .09 acre feet as treatment for ASCA-Z to treat both

the runoff from the parking area, as well as handle undisturbed runoff received from ditch UD-Za, (see Map 7-2, Mine Site Drainage Map). Dimensions, and the design storm used for determining the size of the retention basin are included in Appendix 7-4, page 11, under the discussion on ASCA's. No mention is made of this basin also treating the runoff from UD-Za.

This drainage retention basin must meet the requirements of R645-301-742.224.

Map 7-2, Mine Site Drainage Map (revised) shows a Carbon County Road culvert routing the runoff from UD-Zb (ditch draining watershed UA-Zb) under the County road where it discharges to the "C" Canyon drainage. All of this takes place inside the Mine's disturbed area boundary. The applicant (as determined on page 5-33, at the bottom of the page) has committed to maintaining this as well as all other culverts and ditches that are County road related and that lie inside the disturbed area perimeter.

Appendix 5-5, page 42, paragraph 4i) Sediment Control, discusses the use of silt fences down canyon of the removal of Cell "C" and the remaining undisturbed by-pass culvert. The applicant intends to use "pocking" as a primary means of sediment control, using depressions having dimensions of 24"W by 36"L by 18"D. According to Map 5-9, silt traps and rock blocks will be implemented in the main canyon drainage post-pond to further reduce contributions of sediment to off permit flows.

Has a SEDCAD or similar computer analysis been performed to show that the pocking of the reclaimed/reseeded areas, in conjunction with the silt traps/rock blocks, will provide as effective a treatment for the runoff as would the retention of Cell "C"? Do designs exist for the silt traps and rock dams? What maintenance plan will be in place to ensure that the maintainable sediment control structures (i.e., silt traps in drainage) will be maintained until Phase II bond release can be obtained?

Analysis:

The PAP now includes a design(s) for pre-pond sediment control; the design does not appear to meet the requirements of R645-3-1-733.210 and -743.

The drainage retention basin which treats the runoff from ASCA-Z, and UD-Za must meet the requirements of -742.224.

The application must show that effluent limitations can be met using the pocking of the revegetated areas, in conjunction with the silt traps and rock dams which are to be implemented as sediment control post-sediment pond.

Other operational hydrology items which were previously referred to in the 8/4/98 deficiency response appear to be adequately addressed.

It is felt that, as far as sediment control measures for the PAP are concerned, that the submittal remains inadequate.

Air Pollution Control Facilities

Page 5-32, 526.400, paragraphs a) through k).

Analysis:

The applicant is required by law to obtain an air quality permit through the Utah Dept. of Environmental Quality, Division of Air Quality. Compliance with the requirements of this approval order by the permittee will keep the West Ridge Mine in compliance with the R645 rules.

Findings:

Upon receipt of the Approval Order from DEQ/BAQ, the permittee will meet the requirements of the R645 rules. This meets the minimum regulatory requirements.

OPERATION PLAN

Snow Removal and On Site Storage Plan

The applicant has failed to address this issue in the Round One Deficiency response received 10/7/98. A snow removal plan has not been submitted; on site storage areas for snow have not been identified on either the Surface Facility Map (Map 5-5), or the Mine Site Drainage Map (Map 7-2).

Surface employee's at a mine are generally unfamiliar with SMCRA, and as such view everything from an operational point of view. Snow removal and storage often leads to compliance issues stemming from snow being pushed into either drainage ditches (blocking them) or a sediment pond (which reduces sediment storage volume). These are both compliance issues. The narrow confines of the "C" Canyon surface facilities area will require that every square inch of space be utilized effectively. This narrow confinement will also limit the thawing cycle to short periods. Ice buildup in ditches may occur to the point that they cannot convey water; hence, water will overflow, freezing on the roads. The loading loop area is of particular concern to this inspector.

It is once again recommended that the applicant address a snow removal and storage plan from two perspectives; 1) it can be used to train surface employee's as to what/where to put snow if and when it does occur, and 2) hopefully, it will help prevent the compliance issues mentioned above.

COAL MINE WASTE

Mine Development Waste
Regulatory Reference R645-301-528.340

Page 5-36 of the application addresses this regulation; "underground development waste will not be stored in surface excess spoil piles (no surface excess spoil piles are being proposed)."

All waste generated from the construction of overcasts, belt transfers, and other areas requiring additional height will be stored underground.

There will be no coal processing waste generated, as the applicant intends to ship run-of-mine product.

The application makes a commitment to dispose of sediment pond cleanout material in a State permitted landfill, such as ECDC.

ECDC is not a DOGM permitted site. This may present a problem.

The face-up of the four portals at the lower Sunnyside outcrop will probably generate some non-saleable product. This will be placed in the surface facilities pad as part of the fill. The applicant commits to meeting all requirements of the R645 rules mentioned under 528.340.

This PAP meets the minimum regulatory requirements for the handling and disposal of coal mine development waste.

RECLAMATION PLAN

Back hauling of Fill Material Into the Underground Workings
Regulatory Reference: R645-301-540-Reclamation Plan

In the initial submittal, the applicant proposed hauling approximately 92,000 cubic yards of the material imported to the site into the underground entries for final disposal. As of 10/7/98, it is not known whether this plan, or hauling the material off site is more economically

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lucrative for the applicant. Bond calculations will more than likely be the determining factor. Mine life at the West Ridge site is anticipated to be approximately twenty years, assuming additional Federal leases are obtained.

SUBSIDENCE CONTROL

Regulatory Reference: R645-301-525.140- Monitoring

Analysis:

Page 5-21 of the submittal revised 9/9/98, commits to implementing a subsidence monitoring plan by installing ground control points on the surface outside of the area susceptible to mining related impacts. Baseline data elevations and aerial photogrammetry will be used to evaluate subsidence, pre- and post-mining. Once subsidence has reached the point at which the settling differential is less than six inches per year, that area will no longer be monitored, so the plan states.

The 9/9/98 revision shows the locations of subsidence monitoring points on Map 5-7, Subsidence Map.

The applicant includes a commitment to monitor subsidence annually as is required under R645-301-332.

On page 5-18 of the revised PAP, the applicant makes the following statement- "However, if mining induced subsidence were to cause **a permanent water loss**, West Ridge commits to replacing the quantity of water depleted". Page 3-9 (revised 9-9-98) commits to replacing seep/spring quantities which are depleted. WR-1 and WR-2 are the two spring sources on West Ridge which are used by livestock and wildlife. Flow rates vary from almost nil to less than 1 GPM. Although it is unlikely that mining will impact the flows of the springs, the application needs to be consistent in that the commitment to replace water quantities once **a permanent water loss** has been deduced is of no consequence to the rancher and/or the landowner. The number of cattle allowed to graze the area is determined by the flow quantities of the two springs. The commitment of page 5-18 should be re-worded in order to be consistent with page 3-9 and meet the requirements of R645-301-525.231.

Page 3-8 of the PAP commits to compensation for the loss of any grazing animals due to mining induced subsidence. This meets with the minimum regulatory requirements of R645-301-321.

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Findings:

The commitment to replace water quantities once a permanent water loss has been deduced does not meet the intent of 525.231. This needs to be re-worded to be consistent with page 3-9.

With the exception of the aforementioned, it is felt that the PAP (with its various revisions) is now adequate to meet the minimum regulatory requirements of R645-301-525.140.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec.783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

EXISTING STRUCTURES AND FACILITIES MAPS

Regulatory Reference: R645-301-521.120 Surface and Subsurface Features

Analysis:

Page 5-6 of the PAP refers to Map 4-1, Existing Land Use, which is a P. E. certified map. The text on page 5-6 indicates that the only man made features which exist within the current proposed permit area are RS2477 roads.

The Grassy Trail Reservoir is not inside the currently proposed permit area.

There are no spoil, waste, noncoal waste, dams, embankments, sediment ponds, water treatment or air pollution control facilities within the proposed permit area.

Map 4-1 meets the minimum regulatory requirements of R645-301-521.120.

Findings:

Map 4-1 meets the minimum regulatory requirements of the R645 rules regarding existing structures and facilities maps.

MINE WORKINGS MAPS

Regulatory Reference: R645-301-512.110. Mine Workings

Analysis:

The TA completed September 10, 1998 indicates that the development of the West Ridge Mine will come within 350 feet of the #4 slope of the abandoned Sunnyside #1 Mine; development entries of certain panels will intercept and cross certain old workings of the same Mine. Although it is extremely doubtful that the water levels within the abandoned area have risen to the upper levels, these same works are more than likely filled with oxygen deficient atmosphere. As gate entries and bleeders are developed down dip, the necessity of accurate surveys will become paramount in order to prevent unanticipated flooding. The possibility of intercepting large volumes of mine water through faults in the coal seam is obvious.

Sunnyside Coal Company closed in 1994 due to economic reasons; it is felt that sufficient Mine maps still exist which will accurately reflect the extent of the underground workings. It is hoped that the applicant will utilize these maps to avoid mine emergencies.

Findings:

Sufficient maps are available through the U. S. Department of Labor, Mine Safety and Health Administration and the Utah Division of Oil, Gas, and Mining for the applicant to meet the requirements of R645-301-512.110. The minimum regulatory requirements have been met.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.200, -521.240,-521.250, -521.260, -521.270

Analysis:

- 1) R645-301-521.200, Signs and Markers Specifications
Page 5-9 started to address this requirement but for some unknown reason, jumped into verbiage required to address permit identification signs. 521.200 is a minimum regulatory requirement that needs to be addressed. The revised PAP dated 9/9/98 inadvertently failed to address this.
- 2) R645-301-521.260, Buffer Zone Markers
The 9/9/98 revision of the PAP commits to placing a stream buffer zone marker in the right fork of the "C" Canyon drainage above the Mine yard disturbance. This meets the minimum regulatory requirements of R645-301-521.261.

Findings:

The revisions dated 9/9/98 did not address all of the specifications requirements for signs

and markers mentioned in the 9/10/98 TA. This is a minimum regulatory requirement which must be addressed.

The PAP commits to marking the right fork of the "C" Canyon drainage as a stream buffer zone. This is an intermittent drainage; the minimum regulatory requirement has been met.

The PAP still needs to address all of the specifications for signs and markers.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec.817.61, 817.62, 817.64, 817.66, 817.67, 817.68;
R645-301-524.

Analysis:

- 1) **R645-301-524.100. Blaster Certification**
Page 5-12 (revised 9/9/98) commits to using an individual having either initial surface blaster certification or recertification training to conduct all surface blasts incidental to underground mining. This meets the minimum regulatory requirements of 524.100.
- 2) **R645-301-524.800. Compliance with Utah and Federal Explosive Use Laws and Regulations**
Page 5-14 of the PAP (revised 9/9/98) commits to complying with all Utah and Federal laws and regulations concerning the use and storage of explosives. This meets the minimum regulatory requirement.

Findings:

The PAP and its associated revisions in the use of explosives now meet all the minimum regulatory requirements of R645-301-524.

RECLAMATION PLAN

Regulatory Reference: R645-301-540.

Analysis:

GENERAL REQUIREMENTS AND INFORMATION

The West Ridge permit application revision needed to re-address the following rule:

R645-301-541.400. Requirement to Submit a Reclamation Plan for Lands Affected by Mining

The applicant has responded to this deficiency by committing to reclaim all areas "within the permit area" (as indicated on page 5-46, revision 9/9/98) **upon completion of final mining activities**. It appears that the applicants commitment is sincere; however, the Division can not wait for the mitigation of mining related impacts in a permit area until final mining activities have been completed. The applicant's commitment must be to mitigate the impacts caused by mining as soon as possible upon discovery of same. The severity of the impact, the resources necessary to mitigate and the time involved must be evaluated on a case-by-case basis. To wait until the completion of final mining activities in a permit area incorporating 2,660 acres is ludicrous.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION

OPERATIONS

POST RECLAMATION SURFACE FEATURES WITHIN THE PROPOSED PERMIT AREA

Regulatory Reference: R645-301-542.320.

Analysis:

The applicant has revised page 5-50 of the PAP (9/9/98), referring to Map 5-9, which shows that portion of the Carbon County road which is within the Mine permit area, and will remain as access for the applied for post mining land use. The twin wheel jeep trail on top of West Ridge is an insignificant feature that will remain until nature reclaims same. The applicant has met the minimum regulatory requirements of 542.320.

Findings:

The application adequately addresses the requirements of R645-301-542.320.

RECLAMATION SUBSURFACE MAN-MADE FEATURES MAP

Regulatory Reference: R645-301-542.320.

Analysis:

At this point, we do not know what man-made utility features will be left in place within

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the Mine's permit area; this requirement can be a stipulation of the mid-term or five year permit renewal process as necessary.

Findings:

This map, as required by R645-301-542.320 is not necessary for approval of the PAP. Mid-term reviews and five year permit renewals can require that this map be submitted as the area develops; this will meet the intent of the R645 requirement.

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