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September 15, 2001

Utah Coal Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/015/017 - AM01A-

Attn: Daron Haddock

Subject: Response to Deficiencies in the Des Bee Dove Mine, Phase 1 Reclamation Plan, PacifiCorp, Des Bee Dove Mine, C015/017-AM01A, Emery County, Utah

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits responses to the deficiencies of the Des Bee Dove Mine Phase 1, Reclamation Plan. The original application was submitted March 29, 2001. Energy West received the deficiencies in the document dated on April 19, 2001. Two extensions were requested and granted until September 15, 2001.

The attached document attempts to answer the deficiencies in the order they were received. The Division's findings will be first listed by regulation and explanation. Energy West will follow by a response in *italics*.

Accompanying this letter are Seven (7) copies of deficiency responses. Also accompanying this submittal are amendments to the Des Bee Dove Mine Phase 1, Reclamation Plan required by the April 19, 2001 Technical Analysis. Redline/strikeout copies of the amended portions are included as well as the C1/C2 form for their placement into the reclamation plan. If you have any questions or concerns regarding this document, please contact myself at (435) 687-4720 or Dennis Oakley at (435) 687-4825.

Sincerely,

Charles A. Semborski
Permitting/Geology Supervisor

Enclosure: Response to Technical Analysis Deficiencies
C1/C2 Forms for placement into Phase 1, Reclamation Plan
Redline/Strikeout binder of Phase 1, Reclamation Plan

Cc: Carl Pollastro (EWMC, w/o encl.)
Scott Child (IMC, w/o encl.)
File

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DIVISION OF
OIL, GAS AND MINING

Huntington Office:
(435) 687-9821
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Trail Mountain Mine:
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The following responses to deficiencies are formatted as found in the technical analysis document. They are broken down into logical section headings similar to the R645 regulations. In each section, the regulation number along with the associated deficiency is followed by the permittee's italicized response.

General Contents

Permit Application Format and Contents

R645-301-121.200, The proposed Appendix XIV contains information that contradicts information in the approved Mining and Reclamation Plan (MRP). Information in the Appendix and MRP must be consistent.

Energy West (Chuck Semborski and Dennis Oakley) met with the Division (Pam Grubaugh-Littig, Daron Haddock, Susan White, Ken Wyatt, Wayne Western, Jim Smith, and Pricilla Burton) in February of 2001 to discuss the proposed Phase I reclamation and how some parts of the plan could potentially contradict with the approved plan. It was agreed, however, that the proposed Phase I plan would be reviewed separately from the approved plan. The contradictions would be immediately amended after approval was granted for Phase I. The focus then, was to get the mine reclaimed.

Maps and Plans

R645-301-521 and R645-301-731, all permit area maps in the MRP must show the disturbed and permit area to include the disturbed area drainage.

There are several AML sites in and around the Des Bee Mine Site (refer to CS1813E in the March 27, 2001 Phase I submittal). These sites have numerous coal piles and non-coal waste scattered through them. If coal fines and or non-coal waste were found in the undisturbed drainage below the mine site, it would be impossible to tell if the coal or waste had been transported from the permittee's disturbed area or the AML sites. Energy West is not ready to take responsibility for any areas not their own.

Energy West met with Lowell Braxton and Mary Ann Wright on August 21, 2001 to discuss this issue. Ms. Wright gave Energy West permission (refer to letter dated August 29) to leave the disturbed area boundary as it is presently referenced.

Environmental Resource Information

Historic and Archeological Resource Information

R645-301-542, The figure referenced as R645-301-400 must be provided and the text must state that the retained structures are not subject to regulation by the Utah Coal Mining Regulations.

The figure has been added to Section R645-301-400 as Figure 1. Text has also been added to R645-301-411.140 which explains that the retained structures are not subject to Utah Coal Mining Regulations. C1/C2 form are included for placing this additional information.

Fish and Wildlife Resource Information

R645-301-322, the raptor nest location map must be provided or the reference to the map deleted.

The figure has been added to Section R645-301-300 as Figure 1. C1/C2 forms are included for placing this additional information.

Soils Resource Information

R645-301-222.200, Please remove from the submittal the repetition of general soils information and inaccurate generalized statements (pages 2 & 3) and concentrate on soils information gained by recent sampling.

Historical soils information is important to any reclamation project. The information allows the permittee to compare past analyses to present and note any quality differences. It is Energy West's opinion that any past analyses should be reported and will, therefore, retain the data in R645-301-200 as well as the general soils information.

Energy West does, however, take offence to the accusation of stating inaccurate information. We go to great lengths to insure all information and data reported in our permits are accurate and factual. The information cited by the Division was information gathered from a soil survey conducted by the Utah State University soil scientist, Dr. A. R. Southard. Dr. Southard is respected in his field study and would not report information that was not accurate.

Additional soil investigations will be conducted to locate potential soil resources during Phase 1 and Phase 2 reclamation. Energy West proposes to excavate trenches in various locations of the Des Bee Dove mine taking composite samples throughout the profile of the trench. This information has been added to R645-301-200. C1/C2 form are included to show placement of this information.

R645-301-233.300, List in Appendix A the laboratory and analytical procedures used during analysis of soils and provide pertinent field notes taken during sampling.

The laboratory and analytical procedures used for all samples were collected by qualified Energy West environmental staff members are those procedures outlined in Table 6 of the Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining (Leatherwood and Duce, 1988). This information is included in Appendix A, as well as , the Date, the Time the sample was taken, and the sampler's initials. C1/C2 forms are included with this submittal to show placement of this added information.

R645-301-233.200, Bury the bermed material represented by sample SS7 within the fill.

The permittee is unsure why the Division wants to bury the material represented by sample SS7. The sampling conducted in March of 2001 found that this sample was acceptable for all listed suitability criteria except % saturation at the 12" - 18" depth range. At this depth, however, the other parameters listed in the suitability criteria (i.e. EC and SAR) decreased. SAR is commonly used an indicator of sodic hazards and, therefore, should be the focal point of the suitability determination. Saturation percentage can be increased with the use of soil amendments such as various types of organic matter (alfalfa, bark mulch, etc.). These amendments will be used at the time of reclamation.

The Des Bee Dove Mine has very limited soil resources available to use as a vegetative growth medium. Energy West feels that it would be a mistake to bury soil materials that have a potential to successfully grow vegetation. Please reevaluate sample SS7 before condemning this valuable soil resource.

In addition to the initial sample survey (March 2001), Energy West collected two additional samples from the berm area (refer to Map CS1814D in R645-301-500, Maps Section, Sample ID's SS7A and SS7B). Analytical results fall within an acceptable range for all parameters analyzed.

Maps, Plans, and Cross Section of Resource Information

R645-301-521 and R645-301-731, the disturbed area and permit area must include the disturbed area drainage.

This deficiency has been previously addressed above and won't be repeated here.

Operation Plan

Air Pollution Control Plan

R645-301-420, the plan must describe methods that are effective in controlling fugitive dust.

Section R645-301-420 has been modified to describe methods that will be effective in controlling fugitive dust. C1/C2 form are included for the placement of this information.

Approximate Original Contour Restoration

R645-301-553.530, A determination, with adequate verification that any remaining highwalls will have a minimum long term static safety factor of 1.3 capable of preventing slides, or provide an alternative criterion to establish that the remaining highwall is stable and not pose a hazard to public health and safety, or to the environment.

Energy West obtained the services of RG&G Engineering Consultants to conduct a stability analysis based on a visual site investigation. Their report includes a construction standard for slopes to be constructed during reclamation operations. This report is included in R645-301-500, Appendix C. C1/C2 forms are included to show placement of this information.

Backfilling and Grading

R645-301-234, include salvage and distribution of the top eighteen inches of substitute topsoil from the outslope (represented by soil samples SS8 and SS9) in the backfilling plan.

The outslope of the Bee Hive/Little Dove pad (represented by SS8) has a small quantity of material covering the boulder fill below. It is doubtful though the outslope has a consistent cover depth of 18". With such a thin veneer cover, it will be difficult to realize 1,250 cy as mentioned by the Division. The Division, however, has idealized the construction of the outslope (i.e. compacted subsoil fill with 18" of high quality topsoil, groomed and tended which produces "the best [soil] in the permit area due to its microbial activity, nutrient status and organic matter. "). The fact is, the

organic and microbial content has never been reported to the Division. If one investigates the 1977 photo on map CS1813E in R645-301-500, one can see that the outslope consists of only boulder material. The only material that exists on the outslope is coal/rock refuse and road base pushed over the side while plowing snow in the winter. Such a small volume is not practical nor economical to pursue.

To the west of the pad, however, exists a berm consisting of topsoil and subsoil material. Three sample sets (SS7, SS7A, and SS7B) have been taken of this area. The samples have been analyzed and found to be a suitable vegetative cover. However, the SAR of the SS7 sample was rated as poor at one location. Two other sample sets were taken of the berm in April of 2001. SAR of these samples were rated as good. The sample points have been included on map CS1814D. The berm material will be used as the main top cover material for vegetative growth.

Additional vegetative cover material may be realized below the boulders. If this material is found in sufficient quantity, it will be segregated, mulched (to add organic matter), and used as a top covering on the fill material. The text in the Phase I reclamation plan has been amended to add this process. C1/C2 forms are included with this submittal to show placement of amended text and revised maps.

The material represented by and SS9 will be used in the reclamation of the access road. A commitment to salvaging the top 18 inches of material will be impossible to make because of how the large boulders are inter-mixed. It is Energy West's intent to use the best available material and achieve the performance standards set by the Utah Coal Regulations.

R645-301-536.300 and 553,252, valley fill material must be buried four feet deep within the backfill.

Any valley fill material planned to be used during Phase I reclamation will be non-toxic/non-acid forming material. Four feet of cover will not be necessary.

R645-301-742, drainage designs must be certified by a registered professional engineer.

The drainage design have been certified by a registered professional engineer. A certification cover sheet has been inserted prior to all drainage designs.

Mine openings

R645-301-551 and 30CFR 75.1711-2, adequate verification in the form of MSHA documentation that the Agency's sealing plan, as approved by same, has been implemented and meets the requirements of 30CFR 75.1711-2 and R645-301-551.

There was no MSHA inspection of the Des Bee Dove portal seals at the time of installation. However, these seals were constructed according to the requirements of 30 CFR 75.1711-2 and R645-301-551. A note acknowledging the fact has been placed on map CS1660B, Surface Facilities Map, Highwall Survey and is certified by a Registered Professional Engineer.

Topsoil and Subsoil

R645-301-233, Identify substitute topsoil for salvage during reclamation and outline temporary storage and replacement practices.

This Deficiency has been previously covered and will not be repeated.

Hydrologic Information

R645-301-752.210, Drawing CS1819A shows schematic cross-sections of channels 2 and 3: these cross-sections show the filter and riprap materials placed on top of the fill. The elevation of the earthwork immediately adjacent to the channel should be above the uppermost edge of riprap placement, as shown on Plate 4-1, sheet 2 of 5 in Volume 4 of the current MRP. The channels should be built to the size designed - that is, large enough to hold the design storm event entirely within the constructed, riprapped channel - then ideally there should be a transition from the constructed, channel to soil, rather than a visible, hard edge. This is visually more like the existing channels; promotes vegetation growth in coarser material, which helps anchor it; and eliminates an edge that could facilitate and concentrate erosion parallel to the channel. From a practical point-of-view, doing the work with large equipment usually will produce such a transition zone without effort as long as there is enough material for 'spillage' beyond the edges of the designed channel.

Drawing CS1819A has been modified to show a smooth transition between the soil elevation and the constructed channel. It is the goal of Energy West to construct the channels and grade the reclamation area to control and reduce erosion as much as possible. The main intent of the typical illustration was to show the construction standard for placement of the filter and the riprap. However, it is a good idea to also show how the channel will be constructed into the fill areas.

R645-301-121.200, the statement on page 18 in Section 752 - about maintenance of sediment control structures downstream of the Phase 1 area until Phase 2 reclamation in the fall of 2001 - needs to be clarified.

This statement has been clarified as requested by the Division. Information regarding the sediment pond and its removal has been also been placed in this section. C1/C2 forms are included to show placement of this information into the modified plan.

R645-301-121.200, trapezoidal channel designs result are in Appendix A - it states on page 28 that the designs are in Appendix B - Des-Bee-Dove Phase I Reclamation Channel Design, but there is no Appendix B in the submittal nor listed in the Table of Contents.

This error has been noted and corrected.

R645-301-121.200, equation (1) on page 21 should show 'Q' on the left side rather than 'P'.

This error has been noted and corrected.

R645-301-742.312, -314, channel designs are based on an average gradient along the length of the designed channel; however, the calculations and designs for channel 3 do not appear to account for the higher velocity and erosive power at the transition from the natural to the head of the constructed channel. The gradient down the face of the sandstone ledge immediately above the head of channel 3 is much greater than that used in the calculations (profile A - Drawing CS1817C), and flow may even form a waterfall with extreme conditions. A transitional structure such as a plunge pool or other method for dissipating the energy of the water flowing off this sandstone ledge is needed.

Energy West agrees with the statement above and investigated the area of Channel #3. Found was a mild slope above the drop (approximately 7.5:1 or 13%). The height of the drop is approximately 25 feet. Energy West gave this information to David Hansen (HAL Engineering) petitioning his advise. He advised that a plunge pool might eventually fail. Large boulders should be used instead to break the flow below the drop. His initial calculations resulted in a D_{50} of 9.5 feet but were based on conditions found in the Phase 2 reclaimed channel. Energy West has redesigned the channel below the drop at channel #3 to include a large boulder dissipation basin which reduces the velocity of flow before entering the designed channel.

R645-301-742.312, -314, riprap should be angular rather than rounded: boulders that will be excavated on-site may be more rounded than is desirable and a method of breaking them into more angular material may be needed.

The sandstone boulders found at the site were formed by the weathering of the solid sandstone outcrops that exist in the area. Weathering include processes of cracking and breaking off these outcrops. More resent weathering results in angular boulders. The older the boulder is, the more rounded. Energy West intends to use the best available riprap material that can be found within the disturbed area of the mine site. It is not anticipated that crushing (breaking) boulders will be necessary.

R645-301-742.312, -314, it is stated several times in the plan that boulders, acquired on-site, will be placed along the channels as erosion protection. Consideration should be given to using the largest boulders to create ledges to break the uniformity of the channel gradient. These should be imbedded into the fill with the filter and riprap placed around them, rather then placing them on top of the filter material, which would allow flow to go under them. Using these large boulders as artificial ledges would require extra attention to the construction of the streambed on the downstream side, and such measures as extra riprap or drop-pools might be needed

The intent of the boulders along the channel was not to create artificial ledges or drop structures. This kind of construction would require specific design for the channel allowing larger riprap at the drop areas to handle the increased velocities and tractive forces placed on the channel material. The actual intent was to create velocity breaks in the channel that would keep velocities of flow to a minimum. Natural velocity breaks are found in existing channels as loose boulders. Flows are kept from reaching a supercritical condition.

R645-301-742.310, -761, acknowledging that it is the permittee who has the authority to control, direct, and supervise construction of the reclamation channels, the Division would like to have the permittee commit to notify the Division as far in advance as possible of when the filter and riprap will be installed so that a Division hydrologist or other Division representative could schedule a field visit during that part of the construction.

Energy West expects the Division to visit the site as much as possible during the construction phase of the reclamation. Communication is a high priority as it will keep the project flowing as smoothly as possible. Energy West will make every effort to keep the Division informed on the progress and timing of each and every project during reclamation. Energy West has always made a conscious effort to conform to all regulations (State and Federal) while conducting coal mining and reclamations.

APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: C/015/017
Title of Proposal: Response to Deficiencies in the Des Bee Dove Mine, Phase 1 Reclamation Plan, PacifiCorp, Des Bee Dove Mine, C015/017-AM01A, Emery County, Utah						Mine: Des-Bee-Dove Mines
						Permittee: PacifiCorp

Description, include reason for application and timing required to implement: **New binder entitled "Phase 1 Reclamation Plan"**

Instructions: If you answer yes to any of the first 8 questions (gray), this may be a Significant Revision and require Public Notice. Any questions, please call a Permit Supervisor.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input checked="" type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

Attach 7 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Charles A. Semborski Geology/Permitting Supervisor 9/18/01
Signed - Name - Position - Date

Subscribed and sworn to before me this 18 day of SEPT, 2001.

Notary Public
My Commission Expires: 11-15, 2004
STATE OF UTAH
COUNTY OF EMERY



DON CHILDS
NOTARY PUBLIC • STATE of UTAH
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HUNTINGTON, UT 84520
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