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ENERGY WEST Mining Co.
PO Box 310
Huntington, Utah 84528

April 26, 1999

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DIV. OF OIL, GAS & MINING

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

Attention: Jim Smith

Copy Joe : Daron

Re: ~~Revised Volume~~ 9 Hydrologic Section, ~~PacifiCorp~~, Des-Bee-Dove mines, ACT/015/017, Deer Creek Mine, ACT/015/018, Cottonwood Mine, ACT/015/019

#2 #2 #2

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits a revised Volume 9 Hydrologic Section for the following mines: Cottonwood Mine Act/015/019, Deer Creek Mine Act/015/018 and Des-Bee-Dove mines Act/015/017 in response to concerns raised during review completed on April 9, 1999.

The concerns raised during the review include:

Concern: **R645-301-121,200, -724.** Even-numbered pages in the copy of the report by Ecosystem Research Institute in Hydrologic Support Information 3 were copied off-center and text and numbers have been clipped.

Response: **Reproduction error, enclosed is 1 copy to be inserted in Hydrologic Support Information #3.**

Concern: **R645-301-121,200, -722.300.** The monitoring points in Mill Fork Canyon are identified as MFC1 and MFC2 on page 116, as MFA01 and MFA02 in Appendix A, and as MFA01 and MFB02 on maps HM-1 and HM-4.

Response: **Volume 9 text: *(e) Mill Fork Canyon Creek* has been corrected to be consistent with Appendix A and Maps HM- 1 and HM-4, i.e. sites MFA1 and MFB2 have been changed to MFA01 and MFB02.**

Concern: **R645-301-724,100.** Ground water levels in Rilda Canyon are discussed on pages 103 and 104, with reference made to Figure HF-25 for water depth information from piezometers P-1 through P-5. Water-level data from P-3 are discussed again on pages 158, 163, 164, and possibly other places in the MRP. Figure H-25 shows water depth information for wells EM-47, P-1, P-4, P-5, P-6, and P-7 from 1993 to 1997, but nothing for P-2 or P-3 (which were either offset or replaced by P-6 and P-7 in 1990, p. 89). There are no data on HF-25 from earlier than 1993 although the text refers to earlier data, especially data from P-3.

Response: **As discussed in Hydrologic Support Information #2 - Rilda Canyon, Wells P-6 and P-7 were drilled adjacent to P- 2 and P-3 respectfully. Wells P-1 through P-5 were shallow (not fully penetrating) wells develop by West Appa Coal Company in the mid 1980's. To assess to the alluvial system, PacifiCorp drilled and developed fully penetrating wells adjacent (approximately 20 foot offset) to P-2 (replacement well: P-6) and P-3 (replacement well: P-7) to obtain accurate seasonal hydrographs. During the pumping test it was apparent that wells P-2 (plugged), P-3 (dry - water level below well development) and P-4 (plugged) were "dead" non-functioning wells. Figure HF-25 has been updated to include all of the historical information (1986 through 1998).**

Concern: **R645-301-121,200, -724,** The Roans Canyon fault was encountered at the 3rd North, lst and 2nd Right entries in 1990. On page 60 it is stated that the last measurement of discharged water from this area was in 1989, apparently a typographical error.

Response: **Volume 9 text concerning the monitoring of the Roans Canyon Fault has been clarified. The following is an excerpt from the revised Volume 9 text:** "The last measurement of discharge from the fault zone (from an established monitoring point in 1989) collected in March 1991 was 150 gpm."

Concern: **R645-301-121.200, -724.200.** In Appendix A it indicates that baseline data for Mill Fork Canyon are to be collected from fourth quarter 1998 to fourth quarter 2000. However, in the section on Mill Fork on page 117 it states that baseline quality analysis was conducted during 1997 and will be repeated every five years: it isn't clear what the statement on page 117 refers to.

Response: **Volume 9 text: *(e) Mill Fork Canyon Creek* has been corrected to be consistent with Appendix A. The following is an excerpt from the revised Volume 9 text:** "Historical monitoring data collected by Beaver Creek Coal Company - No. 4 Mine and the United States Geological Survey (site No. 76: Open File Report 81-539) has been incorporated in PacifiCorp's hydrologic database. Operational water quality monitoring was conducted during 1997 and 1998 (refer to the Quarterly Hydrologic submittals). Baseline quality analysis was initiated in November 1998. In accordance with the Hydrologic Monitoring Plan, baseline quality analysis will conducted be for a two-year period, forth quarter 1998 - fourth quarter 2000 (refer to the respective Annual Hydrologic reports). Thereafter, baseline analysis will be repeated once every five (5) years.".

Concern: **R645-301-121,200, -724.200.** Rilda Canyon has been monitored only since 1989, and Mill Fork only since 1997. Pages 135 and 144 has been revised to indicate this, but it incorrectly states on page 109 that all surface waters have been monitored since 1979.

Response: **Volume 9 text has been revised to state** " PacifiCorp has monitored all of the surface waters since 1979 (except Rilda and Mill Fork initiated in 1989 and 1997 respectfully) and will continue to monitor them in the future."

Concern: **R645-301-121,200, -724.300.** The PHC refers to section R645-301-722 for data used to arrive at the conclusions of the PHC (p. 133) and a detailed description of the geology (p. 134). There is no section R645-301-722 where it is expected, between sections R645-301-721 and R645-301-723.

Response: **Regional Geology in Volume 9 is described in R645-301-721 GENERAL REQUIREMENTS: A. EXISTING GROUNDWATER RESOURCES. Volume 9 text has been revised to correctly state "**A detailed description of the geology (structure and stratigraphy) has been presented in a previous section and will not be duplicated here. (Refer to R645-301-721), instead of R645-301-722.

Concern: **R645-301-724.300.** The report by Geo-Western on the 1989 Rilda Canyon and Mill Fork IP - resistivity survey was previously in section 4 of the supplementary information of the MRP but it is not in Hydrologic Support Information 4 in the revised Chapter 9.

Response: **Enclosed is seven copies of the report by Geo-Western to be inserted in Hydrologic Support Information #4 (prior to maps).**

Concern: **R645-301-724.300.** Elevation profiles of 1992 Rilda Canyon IP - resistivity survey lines on Drawing GENS1338D and the pseudo sections of lines, R-7, R-8, and R-9 were previously in section 9 of the supplementary information of the MRP but are not in Hydrologic Support Information 9 in the revised Chapter 9.

Response: **Enclosed is seven copies of the elevation profiles and pseudo sections from the 1992 Rilda Canyon IP-Resistivity Survey lines R-7 through R-9 to be inserted in Hydrologic Support Information #9.**

Concern: **R645-301-724.300.** There is no information in the MRP on the Left Fork Fault Zone IP - resistivity survey other than the line locations shown on HM-7.

Response: **Map HM-7 depicts all of the geophysical work completed on East Mountain. The Left Fork Graben is a structural feature encountered in the Deer Creek Mine (west side development off of the 3rd North) in 1996. The work completed in 1996 was utilized to map the southern projection for mine planning purposes. The Left Fork Graben is not hydrologic controlling where it was intercepted in the mine, but did limit potential reserves due to roof control problems**

Concern: **R645-301-724.310.** The Roans Canyon fault was encountered in 1985 and again in 1989 in a series of horizontal borings. The conclusion from these tests appears to be that there is "limited lateral communication along the fault." No data or information on these tests are provided. The location of these borings is not given in Chapter 9.

Response: **Initially PacifiCorp conducted a limited hydrologic investigation of the Roans Canyon system in 1985. Data collected during 1985 was used to develop a comprehensive investigation which was conducted in 1989 (included Hydrologic Support information #1). Enclosed is seven copies of the 1985 Roans Canyon hydrologic investigation to be inserted Hydrologic Support Information #1. Each report documents the test holes completed in each phase.**

Concern: **R645-301-724,300.** Most information concerning geology and springs on Drawing CE-10844-EM in the current MRP is now on maps HM-1 and HM-4 in the revised Chapter 9; however, the location of Little Bear spring is not shown (on) these maps. It is stated in the text that the relationship of Little Bear spring to Mill Fork graben is shown on HM-6. The location of Little Bear spring is on HM-6 but HM-6 does not show the faults or graben. The relationship between Little Bear Spring and Mill Fork graben, along with some other geologic information not on any of the maps in the revised Chapter 9, is clearly shown on Drawing CE-10844-EM that is proposed to be removed from the MRP.

Response: **The location of Little Bear Spring has been added to HM-7. Enclosed is seven revised copies of HM-7.**

Enclosed is seven copies of the following information for your review:

Revisions to Volume 9 - Hydrologic Section:

Volume 9 HYDROLOGY

- *Replace Hydrologic Support Information #3(Reproduction error).*
- *Replace entire text section (revised to address the concerns listed above).*
- *Replace Figure HF-25 (updated to include historical information).*
- *Insert Geo-Western report in Hydrologic Support Information #4 (prior to maps).*
- *Insert elevation profiles and pseudo section from the 1992 Rilda Canyon Resistivity/IP in Hydrologic Support Information #9 (insert prior to Cottonwood Canyon maps).*
- *Insert 1985 Roans Canyon hydrologic investigation into Hydrologic Support Information #1 (insert prior to Hydro-Search Study).*
- *Replace Map HM-7 (revised to include the location of Little Bear Spring).*
- *Replace Appendix A (Updated to include monitoring point In Rilda Canyon adjacent To EM-163 & notation change of Mill Fork sites from MFA1/MFB2 to MFA01/MFB02)*

In addition the following maps have been revised to include the recently approved lease modification to Federal Coal Lease U-06039 (approved by the Bureau of Land Management on February 11, 1999):

Volume 9 HYDROLOGY

- *Replace Map HM-1*
- *Replace Map HM-2*
- *Replace Map HM-4*
- *Replace Map HM-5*
- *Replace Map HM-9*
- *Replace Map HM-10*

If you have any questions or concerns regarding this submittal, please feel free to contact myself at 687-4720 or Dennis Oakley at 687-4825.

Sincerely,

Charles A. Semborski
Geology/Permitting Supervisor

CAS/cas

cc: Blake Webster (InterWest Mining Company)
Carl Pollastro (Energy West Mining Company)
Dennis Oakley (Energy West Mining Company)

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Form DOGM - C1 (Last Revised April 28, 1999)

File Folder # 3

APPLICATION FOR PERMIT PROCESSING

Permit Change *	New Permit ☐	Renewal ☐	Transfer ☐	Exploration ☐	Bond Release ☐	Permit Number: ACT/015/017|018|019
Title of Proposal: Amendment, Volume 9 Hydrologic Section, PacifiCorp, Des-Bee-Dove mines, ACT/015/017, Deer Creek Mine, ACT/015/018, Cottonwood Mine, ACT/015/019						Mine: Des-Bee-Dove/Deer Creek/Cottonwood mines
						Permittee: PACIFICORP

Description, include reason for application and timing required to implement: Revisions to Volume 9: Hydrologic Section, redline/stikeout removed from text, insert additional information in Hydrologic Support Information, revised maps to include approved 50 acre lease modification (U-06039).

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.*

☐ Yes	* No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres ☐ increase ☐ decrease
☐ Yes	* No	2. Is the application submitted as a result of a Division Order? DO #
☐ Yes	* No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes	* No	4. Does application include operations in hydrologic basins other than as currently approved?
☐ Yes	* No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes	* No	6. Does the application require or include public notice/publication?
☐ Yes	* No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes	* No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes	* No	9. Is the application submitted as a result of a Violation? NOV #
☐ Yes	* No	10. Is the application submitted as a result of other laws or regulations or policies? Explain:
☐ Yes	* No	11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes	* No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
☐ Yes	* No	13. Does the application require or include collection and reporting of any baseline information?
☐ Yes	* No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes	* No	15. Does application require or include soil removal, storage or placement?
☐ Yes	* No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes	* No	17. Does the application require or include construction, modification, or removal of surface facilities?
* Yes	☐ No	18. Does the application require or include water monitoring, sediment or drainage control measures?
* Yes	☐ No	19. Does the application require or include certified designs, maps, or calculations?
☐ Yes	* No	20. Does the application require or include subsidence control or monitoring?
☐ Yes	* No	21. Have reclamation costs for bonding been provided for?
☐ Yes	* No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes	* 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. (R645-301-123)

Charles A. Semborski

Charles A. Semborski - Geology/Permitting Supervisor 4/28/99

Signed - Name - Position - Date

Subscribed and sworn to before me this 28 day of April, 1999

Barbara J. Adams

Notary Public

My Commission Expires: _____, 19__

Attest: STATE OF _____

COUNTY OF Emery

NOTARY PUBLIC
BARBARA J. ADAMS
15 North Main
Huntington, Utah 84528
My Commission Expires
October 13, 2000
STATE OF UTAH

Received by Oil, Gas & Mining

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APR 30 1999

DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

Application for Permit Processing
Detailed Schedule of Changes to the MRP

Title of Application:	Permit Number: ACT/015/017|018|019
Amendment, Volume 9 Hydrologic Section, PacifiCorp, Des-Bee-Dove mines, ACT/015/017, Deer Creek Mine, ACT/015/018, Cottonwood Mine, ACT/015/019	Mine: Des-Bee-Dove/Deer Creek/Cottonwood mines
	Permittee: PACIFICORP

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	* REPLACE	☐ REMOVE	Hydrologic Support Information #3 (reproduction error) Division's Copy Only
☐ ADD	* REPLACE	☐ REMOVE	Text Section (redline/strikeout removed)
☐ ADD	* REPLACE	☐ REMOVE	Figure HF-25 (updated to include historical information)
* ADD	☐ REPLACE	☐ REMOVE	Geo-Western Report in Hydrologic Support Information #4 (prior to maps)
* ADD	☐ REPLACE	☐ REMOVE	Elevation Profiles & Pseudo Sections from 1992 Rilda Canyon Resistivity/IP to
			Hydrologic Support Information #9 (prior to Cottonwood Canyon maps)
* ADD	☐ REPLACE	☐ REMOVE	1985 Roans Canyon Hydrologic investigation to Hydrologic Support Information #1
			(prior to Hydro-Search Study)
☐ ADD	* REPLACE	☐ REMOVE	Appendix A (updated to include monitoring point in Rilda Canyon adjacent to
			EM-163 & notation change of Mill Fork sites from MFA1/MFB2 to MFA01/MFB02)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-1 (revised to include 50 acre lease modification, U-06039)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-2 (revised to include 50 acre lease modification, U-06039)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-4 (revised to include 50 acre lease modification, U-06039)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-5 (revised to include 50 acre lease modification, U-06039)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-7 (revised to include Little Bear Spring)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-9 (revised to include 50 acre lease modification, U-06039)
☐ ADD	* REPLACE	☐ REMOVE	Map HM-10 (revised to include 50 acrelease modification, U-06039)
☐ ADD	☐ REPLACE	☐ REMOVE	
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Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?