

RECEIVED

JUN 23 1989

CHRONOLOGY OF PERMIT RELATED CORRESPONDENCE

DIVISION OF  
OIL, GAS & MINING

The following list of permit related correspondence covers a period from April, 1977 through May, 1984, included are permits, approvals, variances, modifications, informational requests, and responses. The subject of the correspondence is noted and the author organizations identified. Organizations have been abbreviated as indicated:

- DOGM.....Utah Division of Oil, Gas, and Mining
- USGS.....U.S. Geological Survey
- EPA.....Environmental Protection Agency
- BLM.....Bureau of Land Management
- AEP.....American Electric Power Company
- DSH.....Utah Division of State History
- PRCC.....Price River Coal Company
- USFWS.....U.S. Fish and Wildlife Service
- UDH.....Utah Department of Health
- SCS.....U.S. Soil Conservation Service
- OSM.....Office of Surface Mining
- USPC.....Utah State Planning Coordinator
- UDWR.....Utah Division of Wildlife Resources
- UDCED.....Utah Dept. of Community Economic Development
- CCCP.....Carbon County Community Planning Office
- OSMC.....Office of Surface Mining's hired consultants:  
Fred C. Hart Assoc.
- USDA.....U.S. Department of Agriculture

Copies of all correspondence listed are included.

<u>DATE</u>	<u>SUBJECT</u>	<u>AUTHOR</u>
4-27-77	Final Approval of Mine Operation	DOGM
5-3-77	211 Plan Approval	USGS
8-26-77	Mined Land Reclamation Contract	DOGM
10-11-77	NPDES Approval	EPA
7-16-79	Prime Land Determination	USDA
8-1-79	BLM Seed Mix	BLM
10-16-79	Discussion of Subsidence	BLM
10-19-79	Surface and Ground Water Monitoring Plan	BRAZTAH
11-19-79	Review of Original Conceptual Compliance Plan	OSM

3-4-80	Introduction of Crandall Plan to BLM	AEP
6-2-80	Request for Information on Sediment Pond Design	OSM
6-16-80	Meeting Request to Discuss Environmental Permitting Requirements to DOGM	PRCC
7-2-80	OSM Comments on Drainage Controls	DOGM
7-21-80	Amended pages of NPDES Permit UT-0023086	EPA
8-15-80	Submittal of Permit Map	PRCC
8-15-80	Request for NPDES Amendment	PRCC
8-18-80	Surface Water Control Information	PRCC
8-21-80	Comments on Water Monitoring Plans to DOGM	OSM
9-11-80	Required Fish and Wildlife Information to DOGM	BLM
9-24-80	Preconstruction Meeting - Crandall Canyon	PRCC
9-30-80	Clearance for Construction - Crandall Canyon	DSH
10-15-80	Crandall Canyon Bonding	PRCC
10-17-80	Crandall Bonding	PRCC
10-29-80	Submittal of Crandall Construction Site Map	PRCC
11-4-80	Crandall Historical Sites	PRCC
11-6-80	Wildlife Study Requirements - to DOGM	USFWS
11-13-80	Approval to Initiate Construction at Crandall Canyon	DOGM
11-14-80	Restrictions to Construction at Crandall Concerning Potential Historic Sites	OSM
11-18-80	Request for Information on Sediment Ponds and Waste Water Plans	UDH
12-5-80	Sediment Pond Comments	DOGM
12-23-80	Stipulations to Crandall Construction Approval	OSM
12-30-80	Cross-Drain Variance - Sowbelly Canyon	DOGM
2-2-81	Review of UARC Report on Crandall	DSH

2-11-81	Crandall Sediment Ponds	UDH
2-20-81	Concurrence of Need for Crandall Shafts	USGS
2-21-81	Agreement with OSM 12-23-80 Stipulations	PRCC
2-25-81	Construction Approval - Pond 014	UDH
2-26-81	Submittal of Crandall Construction Plan	PRCC
3-2-81	Right-of-Way Clarification for Crandall Road	BLM
3-2-81	Submittal of Design Data - Crandall Ponds	PRCC
3-13-81	Approval for Shaft Construction Crandall Canyon	DOGM
3-16-81	Pond Construction Approval	UDH
3-19-81	Submittal of MRP to OSM	PRCC
3-20-81	Review of Cultural Resource Reports - Crandall Canyon	OSM
3-30-81	Notification of Completeness and Technical Adequacy of Crandall Plans	USGS
4-17-81	Approval of Ephemeral Stream Crossing	DOGM
4-22-81	Approval of Petrochemical Storage	UDH
4-24-81	Request for Revision of MRP	USGS
6-30-81	Stipulated Approval of Crandall Canyon Power Line Construction	DOGM
7-15-81	Request for Use of Willow Creek Area - to DOGM	PRCC
7-23-81	Helipad and Approval of Power Line	
7-27-81	Request for Use of Willow Creek Area for Storage	PRCC
9-2-81	Use of Lower Yard Area at Crandall	DOGM
9-14-81	Crandall Canyon ACR and Approval	PRCC
10-9-81	Report on Raptor Protection and Power Lines to DOGM	USFWS
10-27-81	Request for Approval of Crandall Storm Drain System - to UDH	PRCC

10-29-81	Construction Permit for Crandall Waste Water System	UDH
11-4-81	Productivity Estimates - Vegetation Reference Areas	SCS
11-12-81	Determination of Completeness - Crandall Modification and Approval of Road Construction	DOGM
12-1-81	Submittal of Crandall Waste Water Plan to OSM	PRCC
12-11-81	Invocation of Administrative Delay	DOGM
1-11-82	Submittal of Discussion on Ground Water at Crandall	PRCC
1-13-82	Request for use of Willow Creek as Storage Yard - Follow-up	PRCC
1-22-82	Approval of Shallow Ground Water for Temporary Potable Use	UDH
1-25-82	Approval of Sediment, Shaft Dewatering and Oil Separator for Crandall	UDH
1-26-82	Letter to Bill Johnson, OSM, Concerning Archaeological/Historical Studies	PRCC
2-2-82	Renewal of NPDES Permits	EPA
2-3-82	Approval of Shaft Dewatering	DOGM
2-19-82	Stipulated approval of Crandall Canyon Modification	DOGM
3-5-82	Report on Raptor Protection and Power Poles	DOGM\USFWS
3-5-82	Request to Research DOGM Conditional Approval	OSM
3-9-82	Response to DOGM T.A. on Crandall...	PRCC
4-7-82	Response to DOGM Technical Analysis and Stipulated Permit of 2-19-82 Crandall Canyon Modification	PRCC
4-8-82	Request for Alternate Topsoil Storage Area...	PRCC
4-15-82	Transmittal of First OSM ACR (4-81)	DOGM
4-19-82	Conditional Approval of Crandall Site	DOGM

4-23-82	Final Approval for Crandall Canyon Modification	DOGM
4-28-82	Request for Crandall Pond 014 Relocation	PRCC
4-30-82	Final Approval of Crandall Site	OSM
5-12-82	Submittal of Plan for Use of Gravel Canyon as Topsoil Storage Area	PRCC
5-18-82	Final Approval of Crandall Site	DOGM
5-26-82	Response to Final Stipulated Approval	PRCC
6-1-82	Request for Potable and Waste Water information	UDH
6-7-82	Approval of Gravel Canyon Topsoil Storage Area	DOGM
6-10-82	Comments on Pond Relocation Crandall	DOGM
6-15-82	Satisfaction of Stipulated Crandall Approval	DOGM
6-28-82	Notification of Modification of Surface Facilities at Castle Gate - New Return Belt	PRCC
7-1-82	Time Extension for 1st ACR Response	DOGM
7-21-82	Approval of Return Belt Modification...	DOGM
7-27-82	Clarifications for Proposed Pond 014 Relocation	PRCC
8-6-82	Pond 014 Relocation	DOGM
8-6-82	Review and Approval of PRCC MRP Chapters on Wildlife and Vegetation	UDWR
8-10-82	Extension of Time for 1st ACR Response	OSM
8-12-82	Alluvial Valley Floors (AVF)	PRCC
8-17-82	Update of NPDES Permit	EPA
8-23-82	AVF Determination	DOGM
8-25-82	Resubmittal of MRP and Response to 1st ACR	PRCC
8-27-82	Request for Approval of Herbicide	PRCC
8-31-82	Approval to use Herbicide	DOGM
9-3-82	Approval of Pond Relocation - Crandall	UDH

9-24-82	Renewal of NPDES Permit	USPC
11-8-82	Approval of Modification of Topsoil Handling at Crandall Leach Field	DOGM
11-15-82	Request for Deletion of Subsidence Monitoring	PRCC
11-17-82	Approval of Modifications to NPDES Permit	UDH
11-22-82	Approval of New NPDES Point Discharge (020) for #3 Mine	UDH
11-26-82	Approval of Point 020	EPA
12-7-82	2nd ACR	OSM\DOGM
12-8-82	Final Approval of NPDES Permit Renewal	EPA
12-9-82	Submittal of Plans for Upgrading Drainage Controls at Castle Gate	PRCC
12-9-82	Request for Approval New Sediment Ponds	PRCC
12-14-82	Response to Request for Subsidence Monitoring Deletion	DOGM
12-28-82	Approval of #3 Mine Discharge	DOGM
1-13-83	Response to 2nd ACR (Partial)	PRCC
1-17-83	Hand Delivered - Cultural Resource Questions in Review of ACR	DOGM\OSM
1-31-83	Summation of 1-13-83 Meeting with OSM and DOGM on 2nd ACR	PRCC
2-8-83	Discussion 2-1-83 on PRCC Response to HCR	OSM
2-14-83	Response to 1-13-83 Meeting and Outline of Future Submittal Deadlines	DOGM
3-10-83	Approval of Modifications to Castle Gate Drainage Controls\Various SAE's	DOGM
3-17-83	Report on Crandall Landslide	PRCC
3-21-83	Request for Consideration of Life of Mine Permit	PRCC
3-22-83	Discussion of Life of Mine Permit	DOGM
3-22-83	Approval of Ponds 011, 012A and 012B	UDH
3-23-83	Rock Slide Report and Discussion of Life of Mine Permit	DOGM

4-5-83	Partial Submittal of 2nd ACR Responses	PRCC
4-6-83	Discussion of 3-24-83 Meeting Concerning Permit Term	PRCC
4-13-83	Landslide Report - #4 Loadout	PRCC
4-14-83	Further Discussion of Life of Mine Permit	DOGM
4-21-83	Temporary Variance Request at Crandall	PRCC
4-27-83	Partial Submittal of 2nd ACR Reponses	PRCC
5-5-83	OSM Comments on 3-24-83 Meeting	OSM
5-6-83	Determination of Administrative Completeness	DOGM
5-17-83	Request for Commencement of Operational Water Monitoring	PRCC
6-9-83	Partial Submittal 2nd ACR	PRCC
6-13-83	Full Takeover of Permit Processing Notification by OSM	DOGM
6-23-83	Approval of Crandall Variance Requests and New Willow Creek Stream Crossing	DOGM
7-5-83	Submittal 2 additional copies of final ACR Submittal of 6-9-83	PRCC
7-12-83	Re-installation of Access to Willow Creek Storage Area and Invitation to Bid	PRCC
7-21-83	Additional Subsidence Requests	OSM
7-29-83	Letter to OSM about ACR Submittals esp. Portal Seals	BLM\USGS
7-29-83	Letter to OSM Concerning Adequacy of Permit Package for 211 Compliance	BLM\USGS
8-8-83	Approval of Willow Creek Stream Crossing	DOGM
8-8-83	Response to Additional Subsidence on Surface Water Requests	PRCC
8-8-83	Response to ACR Concerns	PRCC
9-2-83	Request for Socio-Economic Information	UDCED
9-13-83	Socio-Economic Assessments and Zoning	CCCP
9-16-83	Ground Water Discussions and Draft T.A.	OSM

9-22-83	Policy Regarding Responses to Permitting Requests	DOGM
9-27-83	Cemetery at Willow Creek and Socio-Economic Information	PRCC
9-29-83	Additional Ground Water Information and Monitoring Plan	PRCC
10-3-83	Discussions of MER and Subsidence; to OSM	BLM/USGS
10-5-83	Apparent Completeness Determination	DOGM
10-5-83	Request for Clarifications of Revegetation Plan	OSM
10-5-83	Concerns about Public Roads	DOGM
10-5-83	Submittal of Revised Permit Area Map	PRCC
10-21-83	Submittal of Public Notice	PRCC
10-24-83	Response to Public Road Concerns	PRCC
10-26-83	Response to Vegetation Concerns	PRCC
10-26-83	Discussions on Subsidence	OSMC
10-28-83	Requests for Clarification of Surface Water Plans	OSM
10-31-83	Response to 10-28-83 OSM Requests	PRCC
11-1-83	More Discussion of Willow Creek Cemetery	PRCC
11-2-83	Request for Approval of Subdrainage Plans for Crandall	PRCC
11-4-83	More Subsidence Requests	OSM
11-7-83	Permit Processing Schedule	OSM
11-8-83	Discussion on Subsidence	OSMC
11-17-83	Response ot Subsidence Requests and Commitments to Drainage Control Plans	PRCC
11-21-83	Response to Permit Scheduling	PRCC
12-9-83	Subsidence Outside Permit Area	OSM
12-15-83	Response to PRCC 11-21-83 Letter	OSM
1-17-84	Subsidence Outside Permit Area	OSM

1-20-84	Outline of Permit Finalization Meeting and Draft Conditions	OSM
1-25-84	Clarification of Revegetation Plans	PRCC
2-1-84	Commitments to Conditions	PRCC
2-1-84	Approval of Crandall Subdrainage Plan	DOGM
2-3-84	Discussions on Subsidence and Permit Boundary	PRCC
2-6-84	Response to additional requests of 2-2-84	PRCC
2-15-84	Policy Concerning Subsidence and Permit Boundary	DOGM
2-22-84	Withdrawal of Subsidence Restrictions	OSM
3-16-84	Modification Request to Pond 014	PRCC
3-16-84	Explanation of Goose Island Reclamation	PRCC
4-26-84	Request for Additional Information Pertinent to MRP	OSM
5-3-84	Partial Response to 4-26-84 OSM Request	PRCC
5-8-84	Partial Response to 4-26-84 OSM Request	PRCC
5-10-84	Final Response to 4-26-84 OSM Request	PRCC

Scott M. Matheson

~~XXXXXXXXXXXXXXXXXXXX~~  
Governor



OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

GUY N. CARDON  
Chairman

CHARLES R. HENDERSON  
ROBERT R. NORMAN  
I. DANIEL STEWART  
HYRUM L. LEE

April 27, 1977

Mr. Ken B. Hutchinson  
Braztah Corp.  
P.O. Box 599  
Helper, Utah 84526

Re: Final Approval  
pending surety  
Braztah #'s 3, 5-8  
ACT/007/004

Dear Ken:

The final approval of the Mining and Reclamation Plan for this mine is hereby issued by the Division. This approval is given pending the posting of adequate surety in the amount shown on the enclosed estimate. The amount was approved by the Board of Oil, Gas, and Mining at their meeting on the 22nd of April 1977.

Several surety forms are available to Braztah. It seems most appropriate that the contract to cover reclamation would be the best form for an operation of this magnitude. However, all three forms are included for your consideration. I might add that which ever form is submitted, it should be a document executed by the parent corporation of Braztah, which I assume is McCulloch Oil Company. If the mining is a joint venture then the two partners must both enter into the agreement.

The next Board meeting is scheduled for the 25th of May, and if the surety form is received by the Division by then, the document could be finalized during the May meeting.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Ronald W. Daniels*  
RONALD W. DANIELS  
COORDINATOR OF MINED  
LAND DEVELOPMENT

Enclosure: Bond Estimate

BEFORE THE BOARD OF OIL, GAS, AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
In and for the STATE OF UTAH

IN THE MATTER OF THE APPROVAL OF THE  
NOTICE OF INTENT AND RECLAMATION PLAN  
SUBMITTED BY BRAZTAH CORPORATION,  
BRAZTAH NO's. 3 thru 8 MINES,  
CARBON COUNTY, UTAH:

ORDER TO SHOW CAUSE

NO. ACT-007-001

Mar. 14, 1977

THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION, MINERAL AND  
ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN TOWNSHIPS 12 and  
13 SOUTH, RANGES 8 - 10 EAST, SLBM, CARBON COUNTY, UTAH

Notice is hereby given that tentative approval was given to  
the Braztah Corporation by the Utah Division of Oil, Gas, and Mining, to  
continue and begin underground coal mining on portions of 57 Sections of  
Township 12 and 13 South, Range 8 - 10 East, SLBM, Carbon County, Utah. The  
name of the operation is Braztah No's. 3 - 8 Mines and the person representing  
the company is Mr. W.H. Haynes Jr., Executive Vice President, Braztah  
Corporation, Box 539, Helper, Utah 84526.

Braztah Corporation has fulfilled obligations under the Mined Land  
Reclamation Act of 1975 (Section 40-8, U.C.A., 1953, as amended) and will  
employ the following reclamation techniques on 170 acres of fee land which  
comprise the land affected.

During Operations:

- 1) Soil will be scraped and properly stockpiled where possible before future land disturbance.
- 2) In all cases of development, a minimum of surface disturbance will be made.
- 3) Coal will be extracted with special consideration in areas where subsidence might pose adverse consequences.
- 4) Reject material from a washing plant will be de-watered and deposited in a non-impounding, engineered refuse dump.
- 5) Dust suppression techniques will be incorporated in the coal-handling and loading facilities.
- 6) Excess water will be treated to acceptable standards before disposal into surface water courses.
- 7) Reclamation techniques will be researched on various sites during the life of the project.
- 8) Existing drainages will be properly diverted around all surface facilities.
- 9) The operation will be conducted in a safe and orderly manner with full consideration of environmental concerns.

After Operations:

- 1) All surface structures will be dismantled and removed from the site along with all machinery, scrap and debris.
- 2) All openings to the mines will be properly sealed.
- 3) Areas of surface disturbance will be scarified and graded to stable contours.
- 4) Soil material will be spread over infertile coal and waste rock.

ORDER TO SHOW CAUSE  
No. ACT-007-004

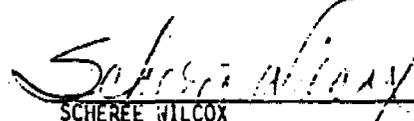
- 5) All disturbed areas will be returned to a productive use by planting approved species.
- 6) Soil amendments and maintenance will be used if necessary to provide for revegetation success.

Reclamation performance surety will be established upon final approval of the reclamation plan.

Any person or agency aggrieved by this tentative decision is hereby requested to submit written protest within 30 days of March 25, 1977, to the Division of Oil, Gas, and Mining, 1588 West North Temple, Salt Lake City, Utah, setting forth factual reasons for his complaint, and thereafter, at a time and place heretobe established, appear before the Board of Oil, Gas and Mining, to show cause, if any there be, why this plan should not be approved.

DATED this 14th day of March, 1977.

STATE OF UTAH  
BOARD OF OIL, GAS, AND MINING.

  
\_\_\_\_\_  
SCHEREE WILCOX  
Secretary of the Board



United States Department of the Interior

GEOLOGICAL SURVEY

U-058184 et al.

Office of the Area Mining Supervisor  
Conservation Division  
8426 Federal Building  
125 South State Street  
Salt Lake City, Utah 84138

May 3, 1977

Mr. William H. Haynes, Jr.  
Vice President  
Braztah Corporation  
P.O. Box 599  
Helper, Utah 84526

Dear Mr. Haynes:

In my approval letter of April 27, 1977, for your April 6, 1976, mining plan for the Utah operations of Braztah, we inadvertently omitted two leases that should have been included with the list of leases covered by the approved mine plan. Please add leases SL-029093-046653 and SL-071737. Also lease SL-048442-050115 is one lease that has been combined. It was shown as two separate leases. This makes a total of ten leases covered by the approval. The total acres reported in the approval of April 27, 1977, is correct.

If you have any questions, please let me know.

Sincerely yours,

*Jackson W. Moffitt*

Jackson W. Moffitt  
Area Mining Supervisor

RECEIVED

MAY 4 1977

BRAZTAH CORP.  
HELPER, UTAH





Office of the Area Mining Supervisor  
Conservation Division  
8426 Federal Building  
125 South State Street  
Salt Lake City, Utah 84138

April 27, 1977

Mr. William H. Haynes Jr.  
Vice President  
Braztah Corporation  
P. O. Box 599  
Helper, Utah 84526

Dear Mr. Haynes:

By a memorandum dated April 20, 1977, from the Acting Chief, Conservation Division, this office was authorized to approve the underground coal mine plans, submitted by Braztah on April 6, 1976, for the Braztah Nos. 3, 4, 5, 6, and 7 mines in Carbon County, Utah. The plans encompass 26,220 acres of Federal and private holdings of which 11,520 acres are on nine Federal leases (U-058184, SL-046652, SL-048412, SL-050115, U-25484, U-25485, U-0146345, U-019524, and U-0148779). The plan was submitted by the Geological Survey to the Secretary's Office for approval as being in full compliance with the performance standards of 30 CFR 211, subject to the following conditions of approval. The Under Secretary concurred in this determination.

Accordingly the April 6, 1976, mining plan is approved subject to the following conditions:

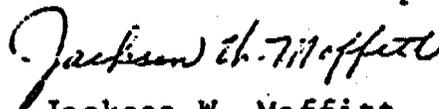
1. The plan is approved with the condition that upon completion of the Central Utah Regional EIS, the plan shall be reviewed and any applicable and appropriate mitigating measures or stipulations generated as a result of the Central Utah Regional EIS shall be incorporated into the conditions of the plan approved.
2. The operator shall, to the maximum extent possible, begin to comply with all requirements of 30 CFR Part 211. All requirements of 30 CFR 211.40 shall be complied with.

3. The operator, in consultation with the Area Mining Supervisor, shall establish an adequate subsidence detection survey grid, with special emphasis on the area indicated as "subsidence prone" in the mine plan by the operator. Monitoring frequency and grid size are to be determined in consultation with the Mining Supervisor.
4. The operator, with the direction of the Mining Supervisor, shall leave adequate coal in place to preclude potential for subsidence underneath the Price Canyon Recreational Area and any other area the Mining Supervisor determines to need special preventive measures.
5. The operator shall submit to the Mining Supervisor a groundwater monitoring plan based on the hydrologic study that is to be supplied with the plan submitted to fully comply with 30 CFR 211 by November 17, 1977. The Mining Supervisor shall, at the time when the plan is in full compliance with 30 CFR 211, determine if the monitoring plan is adequate and whether or not it should be implemented.

This office has consulted with the Governor of Utah concerning our proposed approval. A copy of his approval letter is attached.

Please be advised that any modifications of the approved plan must be submitted to this office for approval.

Sincerely yours,



Jackson W. Moffitt  
Area Mining Supervisor

Enclosure



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

I. DANIEL STEWART  
Chairman

CHARLES R. HENDERSON  
JOHN L. BELL  
THADIS W. BOX  
C. RAY JUVELIN

August 26, 1977

*Rec 5:30:77  
208  
Requested  
Original  
S.*

Mr. Garth Condie  
P.O. Box 629  
Helper, Utah 84526

Dear Mr. Condie:

Enclosed are the two (2) executed copies of the Mined Land Reclamation Contracts for the Braztah operations in Carbon County, Utah. This now completes the approval process for the Braztah operations, therefore, the mines can now be operated lawfully under the Mined Land Reclamation Act.

Please be advised that under the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, which is the new Federal Law governing surface mines, the plan will need slight revisions eventually. The State hopes to achieve the regulation responsibility from the Department of Interior under this new Law. Once the extent of the needed revisions is known by the State, you will be contacted so that the changes can be made to your Mining and Reclamation Plan, herewith approved.

Let us know if you have any questions on this approval.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

RONALD W. DANIELS  
COORDINATOR OF MINED  
LAND DEVELOPMENT

/tlb

cc: Ken Hutchinson

MINED LANDS RECLAMATION CONTRACT

This Contract, made and entered into this 20 day of June, 1977, between Franklin Real Estate Company, a Pennsylvania corporation, hereinafter referred to as "Owner", and the Department of Natural Resources Board of Oil, Gas and Mining of the State of Utah, hereinafter referred to as "Board".

W I T N E S S E T H:

WHEREAS, the Owner owns and controls certain lands and leases, hereinafter more particularly described in Exhibit "A" attached hereto and made a part hereof by this reference; and

WHEREAS, the Owner has designated Braztah Corporation, a Utah corporation, as its agent to conduct mining operations on said lands and leases, hereinafter referred to as "Operator"; and

WHEREAS, the Operator filed with the Division of Oil, Gas and Mining, a "Notice of Intention to Commence Mining Operations" to secure authorization to engage, or continue to engage, in mining operations in the State of Utah, under the terms and provisions of the Mined Land Reclamation Act, Section 40-8, UCA, 1953; and

WHEREAS, the Owner is able and willing to have reclaimed the above referenced affected lands in accordance with the approved Mining and Reclamation Plan, the Mined Land Reclamation Act and the rules and regulations adopted in accordance therewith; and

and recommendations provided by the staff of the Division of Oil, Gas, and Mining as to the magnitude, type and costs of the approved reclamation activities planned for the land affected; and

WHEREAS, the Board is cognizant of the nature, extent, duration of operations, the financial status of the Owner and its capabilities of carrying out the planned work.

NOW THEREFORE, for and in consideration of the mutual covenants of the respective parties hereto, the parties agree as follows:

1. The Owner promises to reclaim or have reclaimed the land affected in accordance with the approved Mining and Reclamation Plan submitted by Operator and approved by the Division of Oil, Gas and Mining on April 22, 1977, the Mined Land Reclamation Act, and the Rules and Regulations adopted in accordance therewith.

2. The Board, in lieu of the posting of a bond or other surety, hereby accepts the guarantee of the Owner to reclaim the land affected.

3. The Board and Owner both agree that the Owner will not be obligated to expend a sum in excess of that required to complete the reclamation work outlined in the Mining and Reclamation Plan which was submitted to the Division of Oil, Gas and Mining by the Operator and approved by the Division of Oil, Gas, and Mining on April 22, 1977, and which has been estimated to cost \$498,410.

IN WITNESS WHEREOF, the parties hereto have respectively

set their hands and seals this 20<sup>th</sup> day of June, <sup>4.</sup> 1977

*GA*  
*W*  
FRANKLIN REAL ESTATE COMPANY

ATTEST:

By G. Barlow  
Vice-President

W. P. [Signature]  
Asst. Secretary

BOARD OF OIL, GAS AND MINING  
OF THE STATE OF UTAH

By J. Daniel Stewart

Approximate  
AcresL. M. U.FEDERAL LEASES

U 019524	645.12
U 25484	633.84
U 25485	543.42
SL 071737	1,960.00
SL 029093 - 046653	1,284.42
UO 58184	693.89
UO 148779	1,240.00
UO 146345	1,160.00
SL 046652	802.36
SL 048442 - 050115	<u>2,562.88</u>
	11,525.93

STATE LEASES

SL 046652	640.00
ML 1892	389.84
ML 18148	640.00
ML 11940	<u>642.33</u>
	<u>2,312.17</u>

CARBON COUNTY LEASEST. 13 S. R. 10 E.

Sec. 5 S $\frac{1}{2}$ , S $\frac{1}{2}$ N $\frac{1}{2}$ ,	
Sec. 6 S $\frac{1}{2}$ N.E. $\frac{1}{4}$ , N $\frac{1}{2}$ S.E. $\frac{1}{4}$	
Sec. 8 E $\frac{1}{2}$ N.E. $\frac{1}{4}$ , N.E. $\frac{1}{4}$ S.E. $\frac{1}{4}$	759.97

T. 12 S. R. 10 E.

Sec. 28 N.W. $\frac{1}{4}$ N.W. $\frac{1}{4}$	40.00
Sec. 29 S $\frac{1}{2}$ N.E. $\frac{1}{4}$ , W $\frac{1}{2}$ S.E. $\frac{1}{4}$ E $\frac{1}{2}$ S.W. $\frac{1}{4}$ , S.W. $\frac{1}{4}$ S.W. $\frac{1}{4}$	280.00
Sec. 30 S.E. $\frac{1}{4}$ S.E. $\frac{1}{4}$	<u>40.00</u>
	<u>1,119.97</u>

Approximate  
Acres

FEE LAND

T. 12 S. R. 10 E.

Sec. 31 - A11 629.94

T. 13 S. R. 10 E.

Sec. 2 - A11 642.74

Sec. 5 - N $\frac{1}{2}$  N $\frac{1}{2}$  162.88

Sec. 6 - S $\frac{1}{2}$  S.E. $\frac{1}{2}$ , N $\frac{1}{2}$  N.E. $\frac{1}{2}$ , N.W. $\frac{1}{2}$  314.50

Sec. 4 - S $\frac{1}{2}$  S.W. $\frac{1}{2}$ , S.W. $\frac{1}{2}$  S.E. $\frac{1}{2}$  120.00

Sec. 9 - N $\frac{1}{2}$  N $\frac{1}{2}$  160.00

Sec. 10 - N $\frac{1}{2}$  S.E. $\frac{1}{2}$  80.00

Sec. 11 - S.W. $\frac{1}{2}$  160.00

T. 12 S. R. 9 E.

Sec. 35 - A11 640.00

Sec. 36 - N $\frac{1}{2}$  N.W. $\frac{1}{2}$ , S.E. $\frac{1}{2}$  N.W. $\frac{1}{2}$ ,  
W $\frac{1}{2}$  S.W. $\frac{1}{2}$ , S.E. $\frac{1}{2}$  S.W. $\frac{1}{2}$  240.00

T. 13 S. R. 9 E.

Sec. 1 - N $\frac{1}{2}$  N $\frac{1}{2}$ , S.E. $\frac{1}{2}$  N.E. $\frac{1}{2}$ ,  
E $\frac{1}{2}$  S.W. $\frac{1}{2}$  N.E. $\frac{1}{2}$  222.72

Sec. 2 - N $\frac{1}{2}$  N.W. $\frac{1}{2}$ , N.W. $\frac{1}{2}$  N.E. $\frac{1}{2}$  122.96

Sec. 3 - S $\frac{1}{2}$  N.W. $\frac{1}{2}$ , S.W. $\frac{1}{2}$  240.00

Sec. 4 - S $\frac{1}{2}$ , S $\frac{1}{2}$  N $\frac{1}{2}$  480.00

Sec. 5 - S.E. $\frac{1}{2}$ , E $\frac{1}{2}$  S.W. $\frac{1}{2}$   
N.W. $\frac{1}{2}$ , W $\frac{1}{2}$  N.E. $\frac{1}{2}$ ,  
S.E. $\frac{1}{2}$  N.E. $\frac{1}{2}$  522.25

Sec. 6 - N $\frac{1}{2}$  N $\frac{1}{2}$ , S.E. $\frac{1}{2}$  N.E. $\frac{1}{2}$  198.40

And all of the land lying east of a line described as follows:

Beginning 1,980 feet east of the S.W. corner of the N.W. $\frac{1}{2}$  N.W. $\frac{1}{2}$ ; thence south 450 east to the north boundary of the S.E. $\frac{1}{2}$ . 33.00

Sec. 9 - N $\frac{1}{2}$  N $\frac{1}{2}$  160.00

Sec. 10 - N $\frac{1}{2}$  N.W. $\frac{1}{2}$ , W $\frac{1}{2}$  N.E. $\frac{1}{2}$  160.00

5,289.39

Approximate  
Acres

Approximate  
Acres

S.E. 1/4

40.00

N.W. 1/4

40.00

All of the land lying north of the  
er line of said Section 6 and south  
line described as follows:

Beginning 1,320 feet east of the S.W.  
er of the N.W. 1/4 N.W. 1/4 thence east  
thence S. 450 E. to the north boundary  
the S.E. 1/4

40.00  
120.00

GRAND TOTAL:

20,367.46 More or  
Less

629.94

642.74

162.88

314.50

120.00

160.00

80.00

160.00

640.00

240.00

222.72

122.96

240.00

180.00

22.25

38.40

1.00

.00

10

OTHER LANDS

FEE COAL

Acres

T. 13 S. R. 9 E.

Sec. 6 - S.W.  $\frac{1}{2}$ , S.W.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
Part of S.E.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
Part of N.W.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$

270

Sec. 17 S.E.  $\frac{1}{2}$  N.E.  $\frac{1}{2}$

40  
310

FEE LAND

T. 13 S. R. 9 E.

Sec. 1 - S.W.  $\frac{1}{2}$  N.W.  $\frac{1}{2}$ , S.W.  $\frac{1}{2}$

200

Sec. 2 - N.E.  $\frac{1}{2}$  N.E.  $\frac{1}{2}$ , S  $\frac{1}{2}$  N.E.  $\frac{1}{2}$ ,  
S  $\frac{1}{2}$  N.W.  $\frac{1}{2}$ , S.W.  $\frac{1}{2}$ , S.E.  $\frac{1}{2}$

520

Sec. 3 - S.E.  $\frac{1}{2}$ , S  $\frac{1}{2}$  N.E.  $\frac{1}{2}$

240

Sec. 5 - W  $\frac{1}{2}$  S.W.  $\frac{1}{2}$

80

Sec. 6 - Part of N.E.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
Part of N.W.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
Part of S.E.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$

45

Sec. 8 - N  $\frac{1}{2}$ , S.E.  $\frac{1}{2}$ , N  $\frac{1}{2}$  S.W.  $\frac{1}{2}$   
Part of S.E.  $\frac{1}{2}$  S.W.  $\frac{1}{2}$

590

Sec. 9 - All But N  $\frac{1}{2}$  N  $\frac{1}{2}$

480

Sec. 11 N  $\frac{1}{2}$  N.W.  $\frac{1}{2}$

80

Sec. 12 N.W.  $\frac{1}{2}$

160

Sec. 14 S.E.  $\frac{1}{2}$  S.W.  $\frac{1}{2}$

40

Sec. 16 W  $\frac{1}{2}$ , S  $\frac{1}{2}$  N.E.  $\frac{1}{2}$   
N.W.  $\frac{1}{2}$  N.E.  $\frac{1}{2}$ , S  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
W  $\frac{1}{2}$  N.W.  $\frac{1}{2}$  S.E.  $\frac{1}{2}$   
E  $\frac{1}{2}$  N.E.  $\frac{1}{2}$ , S  $\frac{1}{2}$  N.W.  $\frac{1}{2}$

540

Sec. 10 Part of N.E.  $\frac{1}{2}$  S.W.  $\frac{1}{2}$

195

	<u>Acres</u>
<u>T. 13 S. R. 10 E.</u>	
Sec. 8 - S $\frac{1}{2}$ S.W. $\frac{1}{2}$ , S $\frac{1}{2}$ S.E. $\frac{1}{2}$	160
Sec. 9 - S.W. $\frac{1}{2}$ , S.E. $\frac{1}{2}$ , S $\frac{1}{2}$ N.E. $\frac{1}{2}$ S.E. $\frac{1}{4}$ N.W. $\frac{1}{4}$	440
Sec. 10 - E $\frac{1}{2}$ S.W. $\frac{1}{2}$ , S $\frac{1}{2}$ S.E. $\frac{1}{2}$	160
Sec. 16 - N.W. $\frac{1}{2}$	160
Sec. 17 - N.E. $\frac{1}{2}$ , N $\frac{1}{2}$ N.W. $\frac{1}{2}$	240
Sec. 18 - N $\frac{1}{2}$ N.E. $\frac{1}{2}$	80
Sec. 16 - S.W. $\frac{1}{2}$ S.E. $\frac{1}{2}$ , S.E. $\frac{1}{2}$ S.W. $\frac{1}{2}$	Minus the city limits of Kenilworth
Sec. 21 - N.W. $\frac{1}{2}$ N.E. $\frac{1}{2}$ , N.E. $\frac{1}{2}$ N.W. $\frac{1}{2}$	

DIVISION OF OIL, GAS, AND MINING

BOND ESTIMATE

OPERATOR: Braztah Corp.  
 MINE NAME: Braztah Nos. ~~3,5-6~~  
 LOCATION: T. 12 & 13 S., R. 8-10 E.  
 COUNTY: Carbon  
 DATE: 4/18/77

Operation	Amount	Rate	Cost
<b>A. CLEAN-UP</b>			
1. Removal of structures & equipment.	Estimate	\$50,000.	\$ 50,000.
2. Removal of trash & debris.			
3. Leveling of ancillary facilities pads and access roads.			
	80 hrs.		
	Bulldozer	75.hr	6,000.
<b>B. REGRADING &amp; RECONTOURING</b>			
1. Earthwork including haulage and grading of spoils, waste and overburden.	--	--	--
2. Recontouring of highwalls and excavations.	80 hrs.		
	Bulldozer	75.hr	6,000.
3. Spreading of soil or surficial materials. 12" cover - 30 acres	48,400 Cu. Yds	1.Yd	48,400.
<b>C. STABILIZATION</b>			
1. Soil preparation, scarification, fertilization, etc.			
2. Seeding or planting.	170 acres	100.ac	17,000.
3. Construction of terraces, water-bars, etc.	40 hrs.		
	Bulldozer	75.hr	3,000.
4. Maintenance & Cleaning of Diversion Systems	40 hrs.		
	Sm. Bulldozer	50.hr	2,000.
<b>D. LABOR</b>			
1. Supervision.	160 hrs.	10.hr	1,600.
2. Labor exclusive of bulldozer time.	960 hrs.	8.hr	7,680.
<b>E. SAFETY</b>			
1. Erection of fences, portal coverings, etc. 14 Portals (7' x 20')	14 each	250.	3,500.
2. Removal or neutralization of explosive or hazardous materials.	--	--	--
<b>F. MONITORING</b>			
1. Continuing or periodic monitoring, sampling & testing deemed necessary.	Quarterly inspection for 5 years		
		100./ Inspection	2,000.
<b>G. OTHER</b>			
1. Inflation	25 years	@ 5%	147,180.

SUBT 351,230.  
 \$498,410. TOTAL

EPA - Discharge Permits



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII  
1860 LINCOLN STREET  
DENVER, COLORADO 80203

October 11, 1977

*Water treatment plant  
Nov 11*

REF: 8E-PC

CERTIFIED MAIL

RECEIVED

OCT 13 1977

Mr. Boyd J. Harvey  
Vice President of Operations  
Braztah Corporation  
P. O. Box 599  
Helper, Utah 84526

BRAZTAH CORP.  
HELPER, UTAH

Dear Sir:

Herewith enclosed is the NPDES permit for the Braztah Corporation,  
IT-0023141. This permit shall become effective and  
issued thirty (30) days following your receipt of this mailing, unless with-  
in ten (10) days following the date of receipt you submit a request for an  
adjudicatory hearing in accordance with the provisions of 40 CFR Section  
125.36. Such request must be addressed to:

Alan Merson (8E-PC)  
Regional Administrator  
U.S. Environmental Protection Agency  
Region VIII, Suite 103  
Denver, Colorado 80295

If you have any legal questions with regard to this matter, please contact  
Mr. John J. Lepley of this Agency at (303) 837-2361. Questions regarding  
monitoring requirements should be directed to Mr. Ken Alkema of this Office  
at (303) 837-4335.

Sincerely yours,

Irwin L. Dickstein  
Director, Enforcement Division

Enclosures:

- (1) NPDES Discharge Permit
- (2) EPA Form 3320-1 for reporting of self-monitoring



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

4012 Federal Building  
125 South State Street  
Salt Lake City, UT 84138

July 16, 1979

Mr. Lee McCloskey  
Project Manager  
American Electrical Power Co.  
Helper, UT 84526

Dear Mr. McCloskey:

We have reviewed all existing data available in our soil survey and other soil surveys made by Horrocks and Carollo Engineers as requested and made inquiries as to the presence of Prime Land in the Braztah Corporation mine plan area near Helper, Utah, in Township T.12 S-13 and R. 8, 9 and 10 E.

As near as we can determine, there are no lands within the boundary that qualify as Prime Land. Presently none of the land is used as irrigated cropland and most of it is too steep or has other limiting properties that would exclude it from being Prime Cropland.

The map given to us for review by Mr. Laine Adair is enclosed. If you have any questions, contact Dr. T. B. Hutchings, State Soil Scientist, of our office.

Sincerely,

GEORGE D. McMILLAN  
State conservationist

Enclosure: One Map

RECEIVED

JUL 17 1979

A.E.P. SERVICE CORP.  
HELPER, UTAH





# United States Department of the Interior

IN REPLY REFER

3500  
(U-601)

BUREAU OF LAND MANAGEMENT  
Moab District  
Price River Resource Area  
P. O. Drawer AB  
Price, Utah 84501

August 1, 1979

Mr. Don Stevens  
American Electric Power Service Corp.  
68 South Main  
Helper, Utah 84526

Dear Mr. Stevens:

There has been some objection voiced by the Office of Surface Mining Reclamation and Enforcement to the seeding mixture we sent you last year.

According to regulation 816.111, published in the Federal Register on March 13, 1979, the area should be seeded with a permanent vegetative cover of the same seasonal variety native to the area of the disturbed land. Regulation 816.112 gives the conditions under which introduced species may be substituted.

We have always stressed using native species when possible. Our main objective in all cases is to get a quick cover on the disturbed area to mitigate erosional losses.

When putting together a seeding mixture, we try to find species which are not too palatable to livestock. In several cases, we have had livestock graze the new seedings before they've had a chance to become established. If we can use species which are not too palatable, we can avoid the expense of fencing the disturbed sites. Often times these are introduced species.

Another problem we have come up against is finding a seed source for the native species.

We sent over 30 inquiries out to the seed companies asking for a list of native species they sell. We've found that a large number of our native species are just not available.

We have reworked the seed mixture that we sent you last year, added some native species and kept some introduced species. The species marked with



*Save Energy and You Serve America!*

an asterisk are considered introduced species. If we can be of further assistance, please feel free to call.

Sincerely yours,

*George H. Pitman*

Acting Area Manager

Enclosure:  
Seeding Mixture

cc:  
Regional Director, Office of Surface Mining  
Post Office Building, Room 270  
1823 Stout Street  
Denver, Colorado 80202

SEEDING MIXTURE FOR  
AMERICAN ELECTRIC POWER CORP.

<u>Common Name</u>	<u>Botanical Name</u>	<u>Rate of Pure Live Seed (pounds per acre)</u>
*Intermediate wheatgrass	<u>Agropyron intermedium</u> <i>Mt.</i>	4
*Russian wildrye	Elymous junceous	4
Great Basin wildrye	Elymous cinereus	4
Woods rose	Rosa woodsii ultramontana	1/2
Bitterbrush	Purshia tridenta	1/2
Curleaf Mt. Mahogany	Cecocarpus ledifolus ledifolus	1/2
Birchleaf Mt. Mahogany	Cecocarpus montanus montanus	1/2

1601  
(U-060)

## United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District  
P O Box 970  
Moab, Utah 84532

OCT 16 1979

Mr. Ken B. Hutchinson  
Braztah Corporation  
P O Box 599  
Helper, Utah 84526

Dear Mr. Hutchinson:

With the completion of the Wattis Planning Unit Management Framework Plan Supplement in July 1979, the coal unsuitability criteria was applied to the KRCRA's within the unit, including all nonproducing leases. The unsuitability criterion No. 2 for rights-of-way and easements, and criterion No. 3, buffer zones along rights-of-way, affected your lease No. SL-071737. These criteria affected approximately three miles of U.S. Highway 6 and 50, the Denver and Rio Grande Western Railroad and the Price River. Under this MFP supplement, the rights-of-way, along with a 100 foot wide buffer zone on either side, in Sections 21, 22, 26, 27 and 35 in T.12S., R.9E. were classified as unsuitable for mining.

At a meeting held on October 3, 1979 with Boyd Harvey and Jeff Clauson of Braztah and John Coleman of BLM, a determination was made that an area previously classified as unsuitable for mining should be reclassified. Even though lease No. SL-071737 was a nonproducing lease at the time the unsuitability criteria was applied, this lease and nine other leases, had been approved by the U.S. Geological Survey on April 27, 1977. This action nullified the unsuitability determination.

In the letter approving the mining plan, one of the conditions stated,

"The plan is approved with the condition that upon completion of the Central Utah Regional EIS, the plan shall be reviewed and any applicable and appropriate mitigating measures or stipulations generated as a result of the Central Utah Regional EIS shall be incorporated into the conditions of the plan approved."

Subsidence was one of the concerns of the Central Utah Regional EIS. A recommendation will be made to USGS that a stipulation concerning the "angle of draw" with a range between 30 degrees to 45 degrees from



Department of Natural Resources  
October 19, 1979  
Page 2

bcc: K. B. Hutchinson, Chief Engineer  
Braztah Corporation

Lee McCloskey  
American Electric Power Svc. Co.  
(Utah)

Joe W. Davidson  
American Electric Power Svc. Co.  
(Ohio)

# BRAZTAH CORPORATION

October 19, 1979

Department of Natural Resources  
State of Utah  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Gentlemen:

Re: Braztah Corporation Surface and Groundwater  
Monitoring Plans  
State Permit # ACT/007/084

Attached please find Braztah Corporation's ("Braztah") Surface  
and Groundwater Monitoring Plans.

Although said Plans are filed at this time for approval  
pursuant to the OSM-Notice of Violations (79-5-5-30; 79-5-5-31;  
79-5-5-32; and 79-5-5-33) and the State of Utah Notice of  
Violations, plans substantially in the same form were submitted  
to the United States Geological Survey in November of 1977 in  
accordance with 30CFR211 as an appendix to Braztah's Mining  
and Reclamation Plan. (A copy of the November 1977 submittal  
is attached for your information.)

Braztah implemented its Surfacewater and Groundwater Monitoring  
Plan in 1977 and will continue to monitor surfacewater and groundwater  
in accordance with the new Plans submitted herewith.

Should you have any questions regarding this matter, please  
do not hesitate to contact either K. B. Hutchinson, Chief  
Engineer or the undersigned.

Very truly yours,

BRAZTAH CORPORATION



Howard J. Bressler  
Vice President  
Assistant General Counsel

HJE/rsh  
cc:

Murray T. Smith  
Chief  
Division of Inspection  
and Enforcement  
Office of Surface Mining  
Post Office Building Room 270  
1823 Stout Street  
Denver, Colorado

SURFACE WATER MONITORING PLANPRICE RIVER COAL COMPANY

The Price River Coal Company Mine Plan Area is drained by three perennial streams, Spring Canyon Creek, Willow Creek, and the Price River. Additionally, numerous ephemeral streams dissect the area, providing drainage channels for surface runoff from precipitation events.

Surface water quality monitoring activities on the mine plan area began in April, 1977, and have continued since that time. Presently, there are nine designated and routinely sampled surface water quality monitoring stations. These stations are located as follows:

<u>Station Number</u>	<u>Location</u>
B-1	Upper Willow Creek
B-2	Willow Creek above proposed #6 Mine
B-3	Willow Creek below proposed #6 Mine
B-5	Price River below Castle Gate Preparation Plant
B-6	Price River above Castle Gate Preparation Plant
B-17	Sowbelly Creek above Spring Canyon Creek
B-19	Sulfur Canyon Creek above Price River
B-20	Price River above Sulfur Canyon Creek
B-21	Ford Creek at Highway U.S. 6

The geographic locations of these stations are shown on map entitled, "Proposed Water Monitoring Stations" dated 11/7/77.

Under this plan, monitoring at these stations will be continued on a bi-weekly (every two weeks) basis. In addition, Price River Coal Company will also sample and submit the analytical findings for any discharge from sediment ponds or containment structures. It should be noted that these ponds and structures have been sized to retain the runoff from a 10 year, 24 hour rainfall event while providing sediment storage capacity equal to 0.05 acre feet/acre of disturbed area. Thus, discharge from these facilities will be unlikely. Price River Coal Company will also install rain gauges at No. 3 and No. 5 Mines, and the Castle Gate Preparation Plant area. These will be observed on a daily basis and a record of daily rainfall will be included with the monthly submission of analytical findings from the sampling.

Sampling will include measurement of instantaneous discharge, determination of air and water temperatures, determination

Station	Monitors	Remarks
B-1	Willow Creek	Above any disturbed area.
B-2	Willow Creek	Directly above proposed #6 and #6A Mines.
B-3	Willow Creek	Below proposed #6 and #6A Mines.
B-5	Price River	Below new prep plant.
B-6	Price River	Above new prep plant.
B-14	Sowbelly Canyon	Immediately below disturbed area.
B-17	Sowbelly Canyon	At junction with Spring Canyon Creek.
B-19	Sulphur Creek	For high sulphur contributing to Price River.
B-20	Price River	Above Sulphur Creek, below Crandall Canyon proposed facilities.
B-21	Ford Creek	Above all operations. Tributary of Price River.
B-22	Spring (Groundwater)	In mouth of Crandall Canyon.
B-23	Upper Well (Groundwater)	In Bear Canyon.
B-24	Lower Well (Groundwater)	In Bear Canyon.
B-25	New Peerless Slope (Groundwater)	30° Slope to old workings - not now active (sealed).
B-26	New Peerless Slope (Groundwater)	30° Slope to old workings - not now active (sealed).
B-27	New Peerless Slope (Groundwater)	30° Slope to old workings - not now active (sealed).
B-28	New Peerless Slope (Groundwater)	30° Slope to old workings - not now active (sealed).
B-32	Spring (Groundwater)	Mathis Canyon.
B-33	Spring (Groundwater)	Dry Canyon.
MC-205	Observation Hole (Groundwater)	Sowbelly Canyon
MC-206	Observation Hole (Groundwater)	Bear Canyon.
MC-207	Observation Hole (Groundwater)	Crandall Canyon.
B-34	Mine Discharge	Portal of Utah Fuel #1 Mine - now contained, no discharge.

GROUNDWATER MONITORING PLANPRICE RIVER COAL COMPANYPREFACE

The following groundwater monitoring plan has been developed to provide an ongoing assessment of the possible impact of the Price River Coal Company's mining activity on the groundwater regime within its mine plan area. This plan utilizes both wells and natural springs as sampling sites.

The plan has developed over a period of several years and presently includes eight (8) separate sampling locations. Additional monitoring facilities will be installed at least nine (9) months in advance of future mine development in areas not presently served by existing monitoring facilities. Price River Coal Company will secure Regulatory Authority concurrence of these additional facilities prior to their installation.

Monitoring, to date, has been confined to the Blackhawk formation, as this is the most critical geologic unit.

SAMPLING AND ANALYSIS

Price River Coal Company will collect water samples quarterly at the following stations:

<u>Station</u>	<u>Type of Station</u>	<u>Location</u>
B-22	Spring	Crandall Canyon
BW-23	Well	Middle Bear Canyon
BW-24	Well	Middle Bear Canyon
B-32	Spring	Mathis Canyon
B-33	Spring	Dry Canyon
MC-205	Well	Upper Sowbelly Gulch
MC-206	Well	Upper Bear Canyon
MC-207	Well	Crandall Canyon

The geographic location of these stations is shown on map entitled, "Proposed Water Monitoring Stations" dated 11/7/77.

Water samples and physical measurements will be made quarterly at all stations and will include: (a) the collection of samples, and (b) the determination of static level (wells) or discharge (springs).

Measurements and sample collections will be conducted by persons who are properly trained and experienced in such work.

of field pH, and collection of samples for laboratory analysis. Measurements and sample collection will be performed by persons who are properly trained and experienced in such work. All samples for laboratory analysis will be collected in approved containers and properly preserved prior to transportation to the laboratory. The following analysis will be performed on all samples:

- pH
- Total Acidity
- Total Alkalinity
- Total Dissolved Solids
- Total Suspended Solids
- Total Iron
- Dissolved Iron
- Total Manganese
- Sulfate

Additional samples for grease and oil analysis will be collected at Stations B-3, B-5, and B-17.

Price River Coal Company will submit the findings of this sampling program to DOGM and OSM in letter form on a monthly basis. Reports will be filed within 45 days of the end of the month of record.

Consistent with personnel availability and weather, Price River Coal Company will strive to conduct its sampling activities on specific days of the record period, such as first and third Mondays of each month, or other mutually agreeable intervals. Price River Coal Company solicits the thoughts of the Regulatory Authority on this approach.

All ponds will have NPDES Permits. An annual report will be filed summarizing any cumulative hydrological impacts. This document will be completed and transmitted to DOGM by April 1 of the year following the period of record.

projected mine operations of full coal recovery be added to your mining plan. This stipulation should avert any possibility of subsidence effects on the rights-of-way for U.S. Highway 6 and 50, the Denver and Rio Grande Western Railroad and the Price River.

The Wattis Planning Unit Management Framework Plan will be amended to reflect the suitability for mining of lease No. SL-071737.

Sincerely yours,

*M. Scott Packer*

ACNNG District Manager

cc:  
H. Bressler  
USGS

All samples for laboratory analysis will be collected in approved containers and properly preserved prior to transportation to the laboratory. The following analyses will be performed on all samples:

pH  
Total Acidity  
Total Alkalinity  
Total Dissolved Solids  
Hardness  
Total Iron  
Dissolved Iron  
Total Manganese  
Sulfates

Following receipt of the analytical findings, Price River Coal Company will submit a report, in letter form, to the Regulatory Authority. It is anticipated that such reports will be filed within 45 days following the end of the sampling period. For the purposes of this plan, Price River Coal Company intends to follow the following sampling period designation.

<u>Quarter</u>	<u>Period</u>	<u>Report Filed By</u>
First	Jan. 1 - March 31	May 15
Second	April 1 - June 30	August 15
Third	July 1 - Sept. 30	November 15
Fourth	Oct. 1 - Dec. 31	February 15

To the extent feasible, Price River Coal Company intends to utilize this plan in fulfillment of its obligations under the Permanent Regulatory Program. Price River Coal Company submits that this would provide continuity to the data, and thus, would help alleviate possible confusion to both itself and the Regulatory Authority.

As mentioned previously, Price River Coal Company views groundwater monitoring as an ongoing obligation which is reflective of current mine development and agrees to expand this program as necessary to reflect additional mine development.

Any mine pumpage discharged to the surface will be sampled, and the analysis forwarded within 45 days.

Low - M. Clancy

Jill Copy  
Braztah  
Complex

Rto copy & copy  
to Ken Hutchins  
at Braztah



United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement

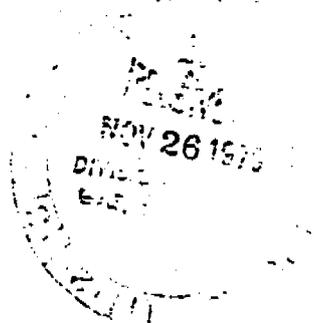
POST OFFICE BLDG, RM 270  
DENVER, COLORADO 80202

Brooks Towers  
1020-15th Street

OFFICE OF THE REGIONAL DIRECTOR

19 NOV 1979

Mr. Ron Daniels  
Coordinator of Mined Land Development  
Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116



Dear Mr. Daniels:

This office has reviewed Braztah Corporation's "Conceptual Design of Compliance Measures for Disturbed Surface Areas, Castle Gate Area, Carbon County, Utah." Based on this review, we have the following comments.

With regard to the section of the report dealing with "Protection of Hydrologic Balance," Braztah proposes to grade disturbed areas to retain all precipitation and to divert away surface flow from undisturbed areas, thus avoiding construction of sedimentation basins. Some relatively large areas are proposed to be bermed to prevent runoff. We recommend the use of sedimentation ponds to treat runoff from the larger disturbed areas.

The report states that diversion channels will be designed to keep velocities below 15 feet per second. At 15 feet per second, flowing water is very erosive and only large riprap may be stable. We recommend a reduction of the present velocity to a maximum permissible velocity in the range of five feet per second.

All culverts and permanent diversions should be designed to safely convey runoff from the area. A safety factor should be incorporated to insure that no excessive erosion occurs. If a culvert is to convey the flow for the life of the mine and the life of the mine is 30 years, the culvert should be designed to safely convey the runoff resulting from the 50-year precipitation event. All permanent diversions should be designed to have a combination of channel and floodplain to safely pass the runoff resulting from the 100-year precipitation event. All permanent diversions should have longitudinal profiles to complement the natural drainage and to prevent headcutting and excessive erosion.

Mr. Ron Daniels

-2-

Almost all road cuts, dumps, and waste piles have slopes of 1.5h:1v. Such structures should have a safety factor of at least 1.5 to insure that they will be stable. Considering the present instability at Willow Creek, it is doubtful that slopes of 1.5h:1v will be stable. We recommend decreasing slopes to achieve a more stable configuration.

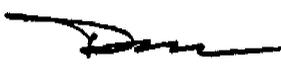
We are concerned about the proposed practice of placing only two feet of soil cover on top of regraded waste dumps. We require at least four feet of soil cover on all waste. We also suggest that refuse in stream channels be removed before diversions are constructed. A general program to remove all refuse from stream channels should be implemented.

The proposed seed mixture is stated to be approved by BLM for drill site reclamation. We have reviewed this mixture, and we suggest that it may be unsuitable for permanent reclamation. We suggest that the seed mixture include more native species and a higher seed mixture rate. The use of hydroseeding should be discouraged.

It was stated in the report that on regraded refuse piles with soil cover, the use of mulching and seeding would eliminate the need for a sedimentation pond. We do not agree with this statement. It often takes more than one seeding to guarantee revegetation. Also, it may take several years for a vegetative cover to be established that is adequate enough to control sediment laden runoff.

If you have any questions related to this review, please contact John Nadolski of my staff (303-837-3773).

Sincerely,



DONALD A. CRANE

AMERICAN ELECTRIC POWER Service Corporation



P.O. Box 700  
Lancaster, OH 43130  
(614) 687-1440

March 4, 1980

Mr. Leon Berggren, Area Manager  
Bureau of Land Management  
United States Department of Interior  
900 North 700 East  
Price, Utah 84501

Dear Mr. Berggren:

I wish to again thank you for the time and candor you afforded to Mr. K.B. Hutchinson and myself during our discussion of the proposed Crandall Canyon development last Friday, February 29. I am, of course, quite happy that you find our concepts to be viable, and that you foresee no major obstacles in their implementation.

As I mentioned during our discussion, the Crandall Canyon facility will employ a "blowing" type of mine ventilation as opposed to the more conventional "exhaust fan" type of installation. Further, as we indicated, the fan and heater house building and associated ductwork will be heavily shrouded with acoustical insulation. As a result, the ventilation facilities should result in a negligible increase in noise in the immediate vicinity of the fans, and an imperceptible increase over ambient levels at the Price Recreation Area.

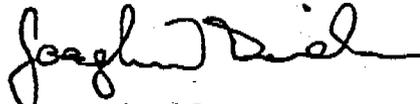
I wish to advise that per your request, we will flag the perimeter of the proposed facility as soon as weather permits so that you may conduct a visibility survey from the Price Recreation Area. In this regard, while we agree with your assessment that Crandall Canyon would not be considered a pristine area, we wish to assure you that we will make every reasonable effort to assure the compatibility of our proposed facilities with their surroundings.

In reference to another issue you raised, I wish to reaffirm that the completion of the Crandall Canyon facility will--under present plans--result in a cessation of mining operations in both Hardscrabble and Sowbelly Canyons, and the reclamation of those areas affected to date. We are pleased that your department favors this centralization.

Leon Berggren  
March 4, 1980  
Page Two

Again, thank you for your time and consideration. I look forward to our future discussions as the project develops. Should you have any questions, please let me know. My telephone number is (614) 687-1440, ext. 191.

Sincerely,



J.W. Davidson  
Sr. Project Engineer

hls

cc: G. Hartley  
G. Cook  
K. Hutchinson  
File



United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202

OFFICE OF THE REGIONAL DIRECTOR

TO: Tomb/2c  
Ra

JUN 2 1980

RECEIVED

JUN 4 1980

DIVISION OF  
OIL, GAS & MINING

Mr. Ron Daniels  
Coordinator of Mined Land Development  
Utah Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Dear Ron:

This office has been unable to review Price River Coal Company's sediment pond design and plans for Hardscrabble and Sowbelly because the proposals were incomplete. Before this review can be completed, the following information is required:

1. Legends for the maps and boundaries of the disturbed areas. The maps are of large enough scale to show detail. However, the features that are not labeled cannot be identified, and the boundaries of the disturbed areas are unclear.
2. Acreage of the disturbed area for each sediment pond.
3. Data for the 10 year - 24 hour precipitation event and the 25 year - 24 hour precipitation event used to design each sediment pond. Data should include details of local vegetation.
4. Details of the principal spillway or dewatering device, and the emergency spillway.
5. Calculations demonstrating that there will be no outflow through the emergency spillway during the passage of runoff resulting from a 10 year - 24 hour precipitation event.
6. Calculations demonstrating that the principal and emergency spillways can safely discharge the runoff from a 25 year - 24 event.
7. Calculations demonstrating that the detention time for the water inflow and runoff entering each pond from a 10 year - 24 hour precipitation event will be at least 24 hours.
8. Calculations demonstrating that all culverts are correctly sized.

9. Detailed cross sections of each sediment pond showing natural ground; height, top width, and side slopes of the dam; elevations of all spillways; maximum water elevations; and maximum sediment elevation. The plans for each sediment pond shall bear the signature and seal of a registered professional engineer.
10. The method of placing the fill including foundation conditions, fill materials, thickness of fill lifts, and compaction requirements.
11. Details on how natural drainage will be diverted away from the sediment ponds, including cross sections of any diversion ditches, and calculations showing that they are correctly sized.
12. Measures that will be used to prevent erosion in all areas disturbed to create the sediment ponds.
13. All sediment ponds are within the 100-foot buffer zone.
14. Since the life of the sediment pond is 20 years, the probability of a runoff event exceeding the 25 year flood is .55. Therefore, evidence must be submitted that the sediment pond embankments will be stable throughout the life of the ponds (e.g., riprap or removing the ponds from the creek bed).
15. Proposed method of sediment disposal.
16. Evidence that the applicant is procuring a NPDES permit.

A copy of this letter is enclosed for transmittal by your office to the applicant. We will not continue processing the application until adequate information is provided. If you have any questions, please contact John Nadolski or Veronica Rovero of my staff (303) 837-3773.

Sincerely,



DONALD A. CRANE

cc: Trippe, USGS, Denver, Colorado  
Wicks, BLM, Salt Lake City, Utah

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

June 16, 1980

Ms. Mary Anne Wright  
Reclamation Biologist  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Dear Ms. Wright:

I wish to again thank you for the time afforded to Joe Davidson and me during our telephone conversation of June 13, 1980.

Pursuant to that discussion, I wish to request a conference relative to the environmental resources data requirements for the Price River Coal Company mine plan area located in Carbon County, Utah - in general and with specific emphasis on the following present and future surface facility areas:

- a. Crandall Canyon
- b. Sowbelly Canyon
- c. Hardscrabble Canyon
- d. Castle Gate Preparation Area
- e. Willow Creek Area

A specific description of these surface areas in terms of location, type of facility, area of surface disturbance, and projected life is as follows:

A. Crandall Canyon

1. Location: SW $\frac{1}{4}$  Sec. 22, NW $\frac{1}{4}$  Sec. 27, S $\frac{1}{2}$  Sec. 28, T.12S; R.9E; SLBM
2. Type of facility: The Crandall Canyon facility is presently undeveloped. Upon completion, however, it will become the center of activity for the development of the reserves west of the Price River. The proposed facilities will include:
  - i. An access road to the mine site area.
  - ii. A bathhouse - office facility to serve the complex which would accommodate approximately 625 miners and supervisors per day.

- iii. A blowing type mine ventilation system supplying 1,000,000 cfm of heated air for mine ventilation.
  - iv. A hoisting facility to provide for access of men and materials.
  - v. Two 26' diameter shafts - approximately 1,500' in depth (1 shaft intake and hoist; 1 shaft as exhaust).
  - vi. A shop with storage area for support of the mine.
3. Area of surface disturbance: The surface area affected by this facility will include:
- i. An area of approximately 200' x 1,100' immediately adjacent to the shafts which would be occupied by the office/bathhouse and shop buildings and parking areas.
  - ii. A 40' x 1-1/2 mile road corridor extending from Route 6 to the mine complex. This road will follow the orientation of the present road.
- The total area of disturbance including the road corridor is approximately 12.3 acres.
4. The projected life of the Crandall Canyon facility is 40 years.

B. Sowbelly Canyon

- 1. Location: NE $\frac{1}{4}$  NE $\frac{1}{4}$  Sec. 5, W $\frac{1}{2}$  Sec. 4, T.13S; R9E; SLBM
- 2. Type of facility: Sowbelly Canyon is the site of the No. 5 Mine. The facility includes the mine portal and fan, a small shop/warehouse, a parking area, several office trailers, and mine fan. Access is by a paved road extending from the confluence of Sowbelly and Spring Canyons to the mine site.
- 3. Disturbed area: The area of surface disturbance resultant from the No. 5 Mine and the access road is approximately 18 acres.

4. Life of facility: The operations at Sowbelly Canyon should be completed within the next 24-36 months, after which, the surface structures will be removed and the area reclaimed. The curtailment of these operations are somewhat contingent on completion of the Crandall Canyon development.

C. Hardscrabble Canyon

1. Location: SW $\frac{1}{4}$  Sec. 3, N $\frac{1}{2}$  Sec. 10, T.13S; R9E; SLBM
2. Type of facility: Hardscrabble Canyon is the site of the No. 3 Mine, and the loadout point of coal produced in the No. 5 Mine. The facilities include several portals, fans, scalehouse, bathhouse, warehouse, office trailers, and shop. Access is by a paved road extending up Hardscrabble Canyon from Martin to the mine site.
3. Disturbed area: The area of surface disturbance resultant from the Hardscrabble Canyon operations, including the access road, is approximately 24 acres.
4. Life of facility: Mining operations in Hardscrabble Canyon will be terminated upon completion of the Crandall Canyon development. The structures will be removed, and the area reclaimed.

D. Castle Gate Preparation Area

1. Location: NW $\frac{1}{4}$  Sec. 1, SW $\frac{1}{4}$  Sec. 36, SE $\frac{1}{4}$  Sec. 35, T.13S; R9E; SLBM
2. Type of facility: The Castle Gate facility is the location of the coal preparation and refuse disposal facilities which serve the Price River operation. It is also the site of the rail loadout. Access to the area is by a paved road off of S.R. 33.
3. Disturbed area: The area of surface disturbance resulting from the Castle Gate facility, including the preparation plant, road, and refuse area is approximately 57 acres.

4. Life of facility: The Castle Gate facility will remain active over the entire life of the Price River Coal Company operation - or approximately 40 years.

E. Willow Creek Area

1. Location: SW $\frac{1}{4}$  Sec. 31, T.12S, R10E; NW $\frac{1}{4}$  Sec. 6, T.13S, R10E; NE $\frac{1}{4}$  Sec. 1, T.13S, R9E; SLBM
2. Type of facility: The Willow Creek area is the site of the No. 6 and 6A Mines. Development scheduling of these facilities is presently indefinite with development being contingent on securing necessary market and capital. Conceptually, however, these facilities would include mine office/bathhouse facilities, fans, warehouse and shop facilities, and parking areas. Coal from this facility would be delivered to the Castle Gate preparation area via an overland conveyor which would follow the course of an abandoned railroad grade. Air shafts to support this facility would likely be located in Dry Canyon and Willow Creek Canyon.
3. Disturbed area: The area of surface disturbance resultant from the Willow Creek development would be approximately 30 acres.
4. Life of facility: Upon completion, the Willow Creek area would remain active over the life of the operation or approximately 40 years.

Also, enclosed please find maps showing:

- a. Location of surface facilities within the mine plan area.
- b. Surface ownership in and adjacent to the mine plan area.
- c. Mineral ownership in and adjacent to the mine plan area.

As we pointed out in our discussion, we are most interested in submitting a separate request for minor modification of an approved mine plan for the Crandall Canyon facility to the Board

Ms. Mary Anne Wright  
Division of Oil, Gas, and Mining  
June 16, 1980  
Page 5

for action before the end of July.

Thank you in advance for your cooperation and assistance.  
Should you have any questions, please advise.

Sincerely,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson*  
K. B. Hutchinson  
Chief Engineer

KBH:ga

Enclosure

cc: Ron Daniels, w/o enclosure  
Joe Davidson, w/o enclosure

Zang - Davidson 7/7/80



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
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EDWARD T. BECK  
E. STEELE McINTYRE

July 2, 1980

Mr. Ken Hutchinson  
Price River Coal Company  
Helper, Utah 84526

RE: Braztah Complex  
Price River Coal Co.  
ACT/007/004

Dear Ken,

Enclosed are the Office of Surface Minings comments on the sediment pond design and plans for Hard Scrabble and Sow Belly Canyons. The OSM comments also represent the Divisions position. We would appreciate your providing the required information so that we can complete the review for these plans and get them approved.

If you have any questions please call Mr. D. Wayne Hedberg or myself.

Sincerely,

  
THOMAS J. SUCHOSKI  
ENGINEERING GEOLOGIST

TJS/lml

Enclosure: OSM's comments  
CC; OSM Denver, Don Crane



Ref: 8E-WE

JUL 21 1980

Certified Mail  
Return Receipt Requested

Mr. K. B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

Re: NPDES Permit Number UT-0023086

Dear Mr. Hutchinson:

Enclosed you will find a copy of the amended pages two and three of your NPDES permit, number UT-0023086.

Please substitute these pages into your permit. These changes will become effective thirty (30) days from the date of your receipt of this correspondence.

The discharge pipe shown on Plot Plan Number 55266-E has been designated Outfall 002 as shown on the attached copy of the plan. This designation should be used on Discharge Monitoring Reports and any correspondence concerning this Outfall. Please submit a new Area Map as required by Part I, B.1 of your permit and number the overflows from the sediment ponds mentioned in your March 25, 1980, letter beginning with Outfall 003. Each pond should have an Outfall number and be located on the Area Map.

If you have any questions pertaining to this matter, do not hesitate to contact Mr. Robert J. Burm of this office at (303) 837-4901.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Lance C. Vinson".

Lance C. Vinson  
Director  
Enforcement Division

Enclosures

cc: State of Utah Department of Health  
EPA, State of Utah Engineer

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Alkaline Mine Drainage, Coal Preparation Plant, and Associated Areas)

4. Effective January 1, 1979, there shall be no discharge from all point sources associated with active mining operations indicated on the area maps submitted pursuant to Part III, A.1., except as provided in Part I, A.1., and Part II, A.5.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Alkaline Mine Drainage, Coal Preparation Plant, and Associated Areas)

1. During the period beginning immediately and lasting through June 30, 1982, the permittee is authorized to discharge from sediment pond point sources treating surface runoff associated with active mining operations indicated on the area maps submitted pursuant to Part III, A.1. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements b/</u>	
	<u>Daily Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow - M <sup>3</sup> /Day, gpd	N/A	N/A	Two per month <sup>2</sup>	Measured a/
Total Suspended Solids	25 mg/l	30 mg/l	Two per month <sup>2</sup>	Composite
Total Iron	N/A	2.0 mg/l	Two per month <sup>2</sup>	Composite
Alkalinity - Acidity (At all times Alkalinity shall be greater than Acidity)			Two per month <sup>2</sup>	Grab
Total Dissolved Solids	650 mg/l	2,000 mg/l	Two per month <sup>2</sup>	Composite

Oil and Grease shall not exceed 10 mg/l and shall be monitored monthly by a grab sample.

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.<sup>2</sup>

There shall be no discharge of floating solids or visible foam in other than trace amounts.

The discharge shall not contain sanitary sewage.

2. Normal sampling days shall be the second and fourth Wednesdays of each month. However, if sufficient rainfall occurs so as to cause a discharge before the fourth Wednesday, one sample must be taken within 12 hours following the rainfall event. Data from the rainfall event sample shall be submitted in lieu of the data from one of the normal sample days.
3. See Schedule of Compliance. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At any point which is representative of each discharge prior to its mixing with the receiving stream and as indicated by the solid triangles on the current area maps submitted pursuant to Part III, A.1.

a/ See Part I, C.3.c.

b/ See Part III, A.2.

Page 2 of 15  
Permit No.: UT-002330

PART I

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

August 15, 1980

*G. Davidson - Lancaster*

Ms. Marianne Adams  
Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Dear Ms. Adams:

On the attached map, we have sketched in the approximate location of our disturbed areas in red, with water monitoring stations shown as green triangles, with a number.

I trust that the enclosed material will enable you to complete your study of our water monitoring plan.

If you have any further questions, please call.

Very truly yours,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson*  
K. B. Hutchinson  
Chief Engineer

KBH:ga

Enclosures - Map

Table of Stations  
Surface Water Monitoring Plan  
Ground Water Monitoring Plan  
Letter, H. Bressler to  
DOGM, 10/19/79

PRICE RIVER COAL COMPANY

P.O. BOX 1 HELPER, UTAH 84526 (801) 472-3411

*Cy Dawson-Lancaster*

August 15, 1980

Mr. Robert J. Burm  
Environmental Protection Agency  
Region VIII  
Suite 103  
1860 Lincoln Street  
Denver, Colorado 80295

Re: NPDES Permit Number UT-0023086

Dear Mr. Burm:

Per our telephone conversation on August 14, 1980, Price River Coal Company hereby requests that NPDES Permit Number UT-0023086 be amended to include thirteen (13) sediment pond discharges, as shown on the attached map.

Since your letter of July 21, 1980 indicated Outfall 002 had been used for the culvert pipe under the road, we started the ponds using Outfall No. 003. We no longer need 002, as this is solely runoff from undisturbed areas, since reworking the pipe installation after the number was assigned.

All sediment ponds shown will contain the runoff from a 10 year - 24 hour storm, and all are subject to the effluent limitation on page 2 of the current permit.

Ponds numbered 003 through 008, and 011 have been constructed, the others await permits.

If you have any questions, please call me.

Very truly yours,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson*  
K. B. Hutchinson  
Chief Engineer

*My file of maps in my table file*

KBH:ga  
Encl. Map of NPDES Permit Location

August 18, 1980

*Mailed 6 additional sets per  
hours - A letter telephone request  
8/22/80.  
mailed 8/25/80 KSH*

Ms. Veronica Rovero  
Office of Surface Mining  
Reclamation & Enforcement  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Dear Ms. Rovero:

Reference the telephone discussion on July 23, 1980, between you and our Mr. Joe Davidson, we offer the following:

We apologize for the confusion caused by sending the maps without the Golder Conceptual Report.

Per your request of June 2, 1980, we submit the following:

1. Revised drawings, which include boundaries of disturbed areas and identification of surface facilities, are attached (Exhibits 1, 2 and 3).
- 2-7. Pond design criteria and respective pond capacities are indicated on attached design criteria discussion (Exhibit 4). Because all ponds are incised, detailed discussion of spillways and dewatering devices are not applicable.
8. Culvert sizing criteria attached (Exhibit 5).
- 9-10. NA
11. Natural drainage will be diverted away from sediment ponds by berms and ditches as shown on the drawings.
12. Nothing disturbed outside of pond area.
13. Canyon is less than 100' wide over entire operation. Stream is ephemeral.
14. NA
15. Excavate as required, and spread on disturbed surface areas requiring reclamation. Add soil amendments as necessary, and seed with an approved seeding mixture.

Ms. Veronica Rovero  
Office of Surface Mining  
August 18, 1980  
Page 2

16. Application for NPDES Permit attached.

We trust that the above will enable you to approve our  
sediment pond installation.

Very truly yours,

PRICE RIVER COAL COMPANY



K. B. Hutchinson  
Chief Engineer

KBH:ga

Encl. - Exhibit 1 - Map, Hardscrabble Area  
Exhibit 2 - Map, Sowbelly Area  
Exhibit 3 - Map, Castle Gate Area  
Exhibit 4 - Sediment Pond Design Criteria  
Exhibit 5 - Culvert Design Discussion  
Exhibit 6 - NPDES Permit Application

cc: Utah - DOGM  
Joe Davidson - Lancaster



United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202

P.W.

OFFICE OF THE REGIONAL DIRECTOR

AUG 21 1980

Mr. James Smith Jr.  
Coordinator of Mined Land Development  
Utah Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, UT 84116

Dear Mr. Smith:

We have reviewed the Surface and Ground Water Monitoring Program for the Braztah Complex. The plans were submitted in correspondence from Mr. Ken Hutchinson, Chief Engineer for Price River Coal Company, on July 15, 1980. After reviewing this document we have the following comments and recommendations.

The hydrologic system needs to be defined. We must know where the water is in order to determine any possible impacts from mining activities. The locations of the monitoring stations cannot be approved without knowing where the disturbed areas are in relation to these stations. A total iron concentration of 431 mg/l is extremely high. Again, we must know the location of the disturbed area to determine if this is natural or a result of mining. It is recommended that dissolved iron be included in the water quality analysis.

The proposed plan requires surface water to be monitored every other month. The Office of Surface Mining (OSM) requests that samples be taken monthly in disturbed areas. Quarterly sampling is acceptable for undisturbed areas. If effluent limits are being exceeded, a higher frequency is required. Enclosed is a copy of OSM's Outline for Surface Water Monitoring Plan Requirements. The requirements are divided into two sections: (A) baseline collection, and (B) sampling during and after mining. The nature of the data collected during baseline monitoring influences, to a certain degree, the sample collection parameters for the second section, i.e., during and after mining monitoring. It is understood that the area is already disturbed and that true "baseline" data cannot be collected; however, an understanding of the hydrologic system is essential, and the sampling procedure for this is similar to the sampling procedure for baseline data collection.

Wells and springs are now monitored biannually when accessible. They need to be sampled on a monthly basis, when accessible, for at least a year to show seasonal variations and any trends. This is especially important since the observation wells have shown high sulfate and total dissolved solids concentrations.

July 9, 1980

533-5758



SCOTT M. MATHESON  
GOVERNOR

BS

STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Craig J. Benson  
Bureau of Land Management  
PO Drawer AB  
Price, UT 84501

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MELVIN I. SMITH, DIRECTOR  
307 WEST 2ND SOUTH  
SALT LAKE CITY, UTAH 84101  
TELEPHONE 601/533-5755

Dear Craig:

Please find enclosed a copy of a memo from Kay Sargent explaining the Crandall Canyon survey for the Price River Coal Company. Evidently, a very minute portion is on BLM land. You will also find enclosed a summary report of inspection for cultural resources and a copy of the U.S.G.S. topographic map. No known archeological sites were located anywhere during the survey. The rock shelter (page 2) is intriguing, but it certainly can't qualify as a bonafide archeological site without evidence of artifacts.

A copy of this report has been forwarded to the Price River Coal Company. If you have any questions, please let me know.

Sincerely,

*La Mar W. Lindsay*  
La Mar W. Lindsay  
Assistant State Archeologist

LWL:ro

Enclosures

cc: Bruce Louthan  
Price River Coal Company

*Phoned 9/19/80 -  
Lindsay out until Mon - say  
will have him call me  
Monday 9/22.*

*9/22/80  
See will also  
be message w/amp*

MEMORANDUM

TO: LaMar Lindsay  
Assistant State Archeologist

DATE: July 3, 1980

FROM: Kay Sargent  
Staff Archeologist

RE: Crandall Canyon Survey, Price River Coal Co.

I spent Monday, June 30, and Tuesday, July 1, surveying the bottom of Crandall Canyon and a transect from the upper part of that canyon into upper Hardscrabble Canyon, per the request of Don Stephens, geologist for the Price River Coal Co. (see attached maps). The survey in Crandall Canyon was for the access road and mining facilities; the transect into Hardscrabble Canyon was for a power line, to affect a ca. 50-60 foot corridor. As part of the power line crosses federal lands, I checked with Craig Benson (BLM-Price Office) prior to the survey. It turns out that only a small part of the access road is on federal land (SE 1/4, NW 1/4, NW 1/4, Sec. 27, T12S, R9E) and less than a mile of the power line will cross federal land (Craig Benson personal communication).

There is presently an access road into Crandall Canyon. I first examined the southeast side of the drainage and then the northwest. I proceeded on a zig-zagging and weaving course to cover the area. Special care was taken to examine any rockshelters or knolls in or very near the survey area. Flagged and staked points were followed in surveying the power line route, starting from the north. The terrain was extremely rugged and steep. Much of the power line route was under heavy forest cover (pinyon-juniper, longer needled pine, wild flowers such as columbine, lupine, Indian paint brush, etc., and sagebrush). Approximately half a mile of the northern end (dashed on map) was not thoroughly checked due to the ruggedness of the terrain. Most of this is on the side of a very steep, rocky ridge and is private land. The rest of the route was very difficult, but more than an adequate width was examined as I often had to go out of the way to find access along the route.

A literature search had been conducted and the State and National Register of Historic consulted (Division of State History files) prior to the survey. There are no known archeological sites immediately near the survey area. There are several petroglyph sites (C6149-160) in Gordon Canyon to the south, in Township 14 South, Range 9 East. A recent survey of a couple of ranges to the east by our office (Hawkins & Seward, 1980) located several historic sites but no prehistoric ones.

No archeological sites per se were present in the area surveyed. One rockshelter near the mouth of Crandall contains much bone. Some of it appeared recent, some weathered and old. There was also some charred and fragmented bone. No artifacts were found in association. No prehistoric remains were found elsewhere on the survey in contrast to abundant historic remains. No Smithsonian site number was assigned. It is on the opposite side of the drainage from the access road and should not be affected.

Several historic structures were located in the canyon. These were for the most part "crude" - most of the stones were unshaped, loosely laid without mortar (the exception is the one lowest in the canyon). All were unusual in incorporating large boulders. According to Gene Haub and Frank Pero, these were all built by an old shepherd who had lived in Crandall Canyon. The northernmost structures were a cluster of contiguous "rooms" built against the northern cliff wall. Several courses of stones were loosely stacked. This appears to have been a "junk" area as there was quite a bit of debris such as corrugated metal sheets, metal barrels, etc. There is the remnant of a fence to the west. One strange construction was the partial body of an old car upon, and around which, stones were piled. Supposedly a fire was built in this by the old shepherd to provide heating in the winter for young lambs. The dimensions of this area is approximately 200 meters east-west by 75 meters north-south. A

A couple of hundred meters down the canyon, across the stream bed, there is another, better constructed building. This is built onto the canyon wall on the south and onto a large boulder on the east. Two sawed logs form the lintel for each of the two windows and the doorway in the west wall. E

Half-way down the canyon, and adjacent to the road on the northwest side, is a better constructed building. The southeast wall is a large boulder. The other stones appear shaped and are mortared. Nailed wood planks form the frames for the windows and door. A long, low retaining wall is formed by several courses of rock. C

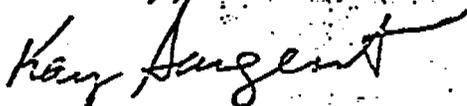
None of the structures identified have roofs. No early glass (purple) or soldered cans were found, so the time of occupation is unknown. The two building sites further up the canyon are within the area where the mining facilities are to be built.

Since the time of construction is unknown, it is unclear whether these structures qualify for the 50 years age minimum for historic sites. Upon discussion with Phil Notarianni (Historian, Utah State Historical Society) who has done much research in Carbon County, these may be significant in documenting sheep herding in the area which was not common. He had scheduled to go to Price next week (July 9th) and is willing to stop in Crandall Canyon to examine them. If they are of interest, they can be studied and photographed, yet need not interrupt construction plans. No Smithsonian site numbers were assigned to the buildings.

I recommend clearance for the project, with the allowance that the historic buildings can be studied if it is warranted in Phil Notarianni's opinion, after his visit on July 9.

Approximately two field days, including travel time, and one office day were spent on this project. Price River Coal Company should be billed accordingly.

Sincerely,



Kay Sargent  
Archeologist

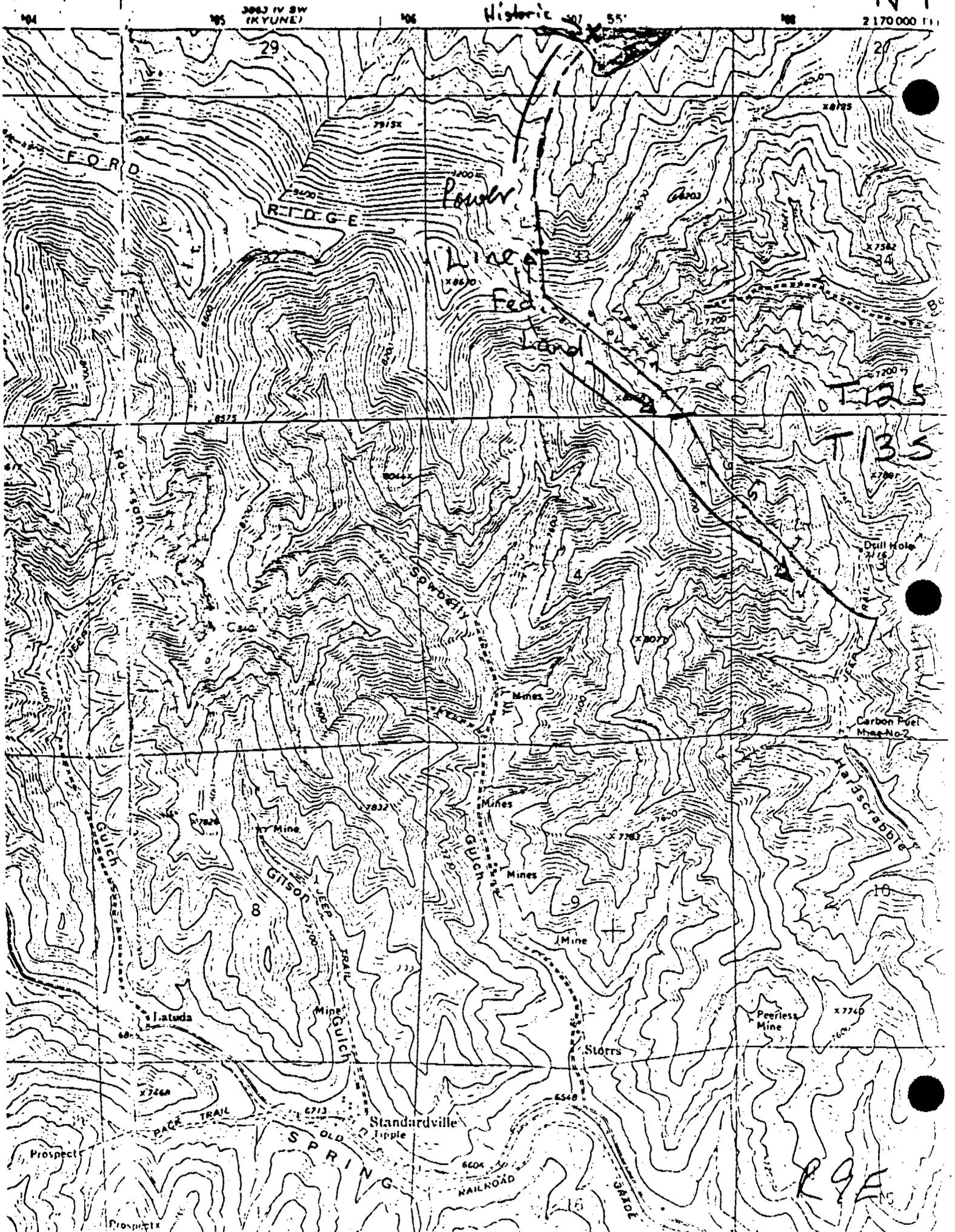
KS:dh

cc: Craig Benson,  
BLM Archeologist, Price Office  
Phil Notarianni,  
Historian, Utah State Historical Society  
Bruce Hawkins,  
Historic Archeologist, State Antiquities Section



STATE OF UTAH  
UTAH GEOLOGICAL AND MINERAL SURVEY

MINUTERANGE  
7.5' USGS  
N ↑





September 30, 1980



SCOTT M. MATHESON  
GOVERNOR



STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Mr. Ken Hutchinson  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR  
307 WEST 2ND SOUTH  
SALT LAKE CITY, UTAH 84101  
TELEPHONE 801/533-5755

Dear Mr. Hutchinson:

This letter reaffirms the archeological clearance conducted in Crandall Canyon for the Price River Coal Company. As you know both private property and very limited Bureau of Land Management land is involved. I have indicated to BLM that no archeological sites were identified on their land, hence clearance is recommended. They, of course, have the final say.

The three historic sites reported in my previous letter are on private land. We can only recommend to you that they are apparently important (see attached Memo from Phil Notarianni, Historian) and hope that they can be avoided in your development. If they are to be destroyed, we would like to further document them and conduct a very limited study of their significance. Again I must say that you are in no way bound to finance the further documentation. We would, of course, hope to have your cooperation.

In sum, this letter provides both a recommendation to BLM for clearance and recommendations for dealing with the historic sites on private land, if these are threatened. As far as we are concerned, you are allowed to proceed with development.

If you have any questions, please let me know.

Sincerely,

La Mar W. Lindsey  
Assistant State Archeologist

LWL:ap

Enclosure

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

October 15, 1980

Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Attention: Mr. Don Crane/Mr. John Hardaway/Mr. John Nadolski

Re: Bonding Crandall Canyon Project

Gentlemen:

Following is our estimate of costs to reclaim the Crandall Canyon area upon cessation of activities:

Fill and seal shafts	\$185,000
Remove buildings and structures	10,000
Drill and blast foundations	10,000
Rip blacktop	10,000
Scrape and load blacktop	15,000
Haul blacktop to disposal area	20,000
Cover blacktop with 4' uncombustible material	30,000
Spread topsoil	10,000
Lime and fertilize	10,000
Seed	5,000
Sow seed	2,000
Mulch	2,000
Track in with dozer	2,000
	<u>311,000</u>
Maintenance and patching	20,000
Contingency	<u>19,000</u>
TOTAL	\$350,000

We now have a contract between Franklin Real Estate (owner of the property) and Utah DOGM for reclamation, not to exceed an estimated amount of \$498,410. We would be pleased to add the amount set for Crandall Canyon to the above number. We are assuming that the added amount would be the \$350,000 which we have estimated, or a round number of \$850,000 for the property as now envisioned.

PRICE RIVER COAL COMPANY

P.O. BOX 629 - 801-472-3411 OFFICE  
HELPER, UTAH 84526

Office of Surface Mining  
October 15, 1980  
Page 2

We thank you for your cooperation and speed in handling our request - please pass our thanks on to all of your people who worked on the project.

Very truly yours,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson /ga*

K. B. Hutchinson  
Chief Engineer

cc: G. Cook - PRCC  
~~J. Davidson - AEP, Lancaster~~  
J. Smith - DOGM

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

October 17, 1980

Mr. John Nadolski  
Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Re: Crandall Canyon Bonding

Dear Mr. Nadolski:

Our estimated numbers for reclamation of the Crandall Canyon site were derived as follows:

Fill and seal shafts - Nominal 20' dia. = 22' dia. excavation;

$$\frac{\text{Pi} \times 11^2 \times 1450}{27} = 20,415 \text{ cu. yds.}$$

Nominal 26' dia. = 28' dia. excavation;

$$\frac{\text{Pi} \times 14^2 \times 1450}{27} = 33,069 \text{ cu. yds.}$$

$$\text{Cu. Yds. Excavated} = 53,484$$

$$\text{Swell } 50\% = 26,742$$

$$\text{Cu. Yds. to Fill} = 80,226$$

$$80,226 \text{ Cu. Yds. @ } \$2 = \underline{\$160,456}$$

Concrete Cap - 20 + 8 = 28' dia.;  $\text{Pi} \times 14^2 \times 1 = 616 \text{ Cu. Ft.}$

26 + 8 = 34' dia.;  $\text{Pi} \times 17^2 \times 1 = 908 \text{ Cu. Ft.}$

1,524 Cu. Ft.

$$\frac{1524}{27} \pm 34 \text{ yds. reinforced concrete @ } \$200 = \underline{\$6,800}$$

\$160,456

6,800

167,256

10% Cont. 16,723

\$183,975

Say: \$185,000

Mr. John Nadolski  
Office of Surface Mining  
October 17, 1980  
Page 2

Buildings & Structures - Removal (Salvage Value) plus.....\$10,000  
Drill & Blast Foundations -  
2 Men @ \$150 x 20 days = \$ 6,000  
Powder = 1,000  
Caps = 1,000  
Bits = 700  
Miscellaneous = 300  
\$ 9,000  
Cont. 10% = 900  
\$ 9,900  
Say: \$10,000

Rip Black Top - Dozer 100 hours @ \$100.....\$10,000  
Scrape & load blacktop - Scraper - 20 days x 8 hrs.  
@ \$60 = \$ 9,600  
F.E. Loader - 100 hrs.  
@ \$54 = 5,400  
\$15,000 \$15,000

Haul Blacktop to Disposal Area -  

$$\frac{12.3 \text{ acres} \times 43,560 \times 0.5 \times 150\#}{2000} = 1,340 \text{ tons}$$
1340 tons x 22 miles x 0.65/ton mile = \$19,162 Say: \$20,000

Cover Blacktop with 4' incombustible material -  

$$\frac{12.3 \text{ acres} \times 43,560}{10' \text{ Ht.}} = 53,579 \text{ sq. ft.}$$

$$\frac{53,579 \times 4}{27} = 7,938 \text{ cu. yds.}$$
7,938 x \$3.50 = 27,783 Say: \$30,000

Spread Topsoil & Grade -  

$$\frac{1.15 \text{ acres} \times 43,560 \times 0.5 \times \$8}{27} = \$9,680$$
 Say: \$10,000

Lime & Fertilize (est.) - \$10,000  
Seed, 30#/acre @ 0.8 germ. x 12.3 x \$10/lb. 5,000  
Sow seed, 2 Men x \$150 x 6 Days = 1,800  
Cont. = 180  
1,980 Say: 2,000

Mulch (est.) 2,000  
Track in w/dozer - 40 hrs. @ \$50/hr. 2,000  
126,000

Mr. John Nadolski  
 Office of Surface Mining  
 October 17, 1980  
 Page 3

Maint. & Patching (est.)	\$126,000
	<u>20,000</u>
	146,000
Cont.	<u>19,000</u>
	165,000
Shafts	<u>185,000</u>
TOTAL	\$350,000

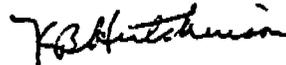
It must be obvious that we have estimated the amount of bond to cover the entire planned Crandall Canyon facility (12.3 acres to be disturbed), rather than the initial phase of work for which we have requested expedited clearance.

We do carry liability insurance in the amount of \$500,000 bodily injury, and \$500,000 property damage.

I trust the above information will answer your question. If you have any further questions, do not hesitate to call.

Very truly yours,

PRICE RIVER COAL COMPANY



K. B. Hutchinson  
 Chief Engineer

KBH:ga

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STICKLE TO COVER FIRST CLASS MAIL ONLY SELECTED DESTINATIONS  
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or to an authorized agent of the article  
Subscriber spaces on the back of the envelope at a post office

October 29, 1980

Mr. Don Crane  
U. S. Department of Interior  
Office of Surface Mining  
Reclamation and Enforcement  
Brooks Tower  
1020 15th Street  
Denver, Colorado 80202

ATTENTION: Mr. Nadolski

Dear Mr. Nadolski:

Per our telephone conversation today, I am sending you a map of the Crandall Canyon area.

The only work we could start this year is as follows:

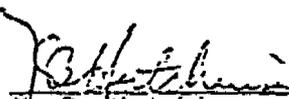
1. Grade access road
2. Grub, clear, remove, stockpile, store and seed topsoil from the shaft site area
3. Rough grade site area
4. Start shaft construction

Other than the access road, the area to be disturbed is enclosed within the heavy line on the enclosed map.

I trust this will answer your questions. If we can be of any further help, don't hesitate to call.

Very truly yours,

PRICE RIVER COAL COMPANY

  
K. B. Hutchinson, Chief Engineer

KBH:fb

Enclosure/map



# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

November 4, 1980

*Crandall  
Permit*

## URGENT - PERSONAL

Mr. William Killam  
Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Dear Mr. Killam:

Reference telephone conversation today between Mr. Joe Davidson, Mr. John Nadolski and Mr. William Killam:

- 1: Price River Coal Company will not affect in any way that portion of existing road located 100 ft. either side of the stone building north of the road east of the shaft site.
- 2) Price River Coal Company will locate the topsoil storage pile for soil removed from shaft site, as far as possible away from structural ruins located on the north side of Crandall Canyon and west of construction area.
3. Price River Coal Company will be agreeable to the installation of such protective devices (fences or other such measures) as may be required or requested by the regulatory authority or the Utah State Historical Preservation office.

Very truly yours,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson*

K. B. Hutchinson  
Chief Engineer

KBH:ga

cc: John Nadolski - URGENT & PERSONAL - Telex  
J. Dykman - State History Office      Telegram  
J. Davidson - Lancaster  
G. Cook - PRCC

MAILGRAM SERVICE CENTER  
MIDDLETOWN, VA. 22645

western union Mailgram

4-047431S309002 11/04/80 ICS IPMRNCZ CSP PRVB  
1 801-4723411 MGM TDRN HELPER UT 11-04 0654P EST

PRICE RIVER COAL CO GA  
PO BOX 629  
HELPER UT 84526

*Crandall  
Permits*

THIS MAILGRAM IS A CONFIRMATION COPY OF THE FOLLOWING MESSAGE:

801 4723411 NL TDRN HELPER UT 128 11-04 0654P EST  
FON 801 5335755  
DIV OF STATE HISTORY  
ATTN J DYKMAN RPT DLY MGM COPY MESSAGE  
307 WEST 2 SOUTH  
SALT LAKE CITY UT 84101

REFERENCE TELEPHONE CONVERSATION TODAY BETWEEN MR. JOE DAVIDSON, MR. JOHN MADOLSKI AND MR. WILLIAM KILLAM.

1. PRICE RIVER COAL CO. WILL NOT AFFECT IN ANY WAY THAT PORTION OF EXISTING ROAD LOCATED 100 FEET EITHER SIDE OF THE STONE BUILDING NORTH OF THE ROAD EAST OF THE SHAFT SITE.
2. PRICE RIVER COAL CO. WILL LOCATE THE TOP SOIL STORAGE PILE FOR SOIL REMOVED FROM SHAFT SITE AS FAR AS POSSIBLE AWAY FROM STRUCTURAL RUINS LOCATED ON THE NORTH SIDE OF CRANDALL CANYON AND WEST OF CONSTRUCTION AREA.
3. PRICE RIVER COAL CO. WILL BE AGREEABLE TO THE INSTALLATION OF SUCH PROTECTIVE DEVICES (OF FENCES OR OTHER SUCH MEASURES) AS MAY BE REQUIRED OR REQUESTED BY THE REGULATORY AUTHORITY FOR THE UTAH STATE HISTORICAL PRESERVATION OFFICE.

VERY TRULY YOURS,  
K B HUTCHINSON CHIEF ENGINEER  
PO BOX 629  
HELPER UT 84526

1857 EST

MGMCOMP MGM



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
AREA OFFICE COLORADO-UTAH  
1311 FEDERAL BUILDING  
125 SOUTH STATE STREET  
SALT LAKE CITY, UTAH 84138

November 6, 1980

IN REPLY REFER TO:

Mr. Cleon B. Feight, Director  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attention: Mary Ann Wright

RECEIVED

NOV 6 1980

DIVISION OF  
OIL, GAS & MINING

RE: Predesign Wildlife Consultation  
Price River Coal Company  
Braztah No. 3, UT-0008  
Braztah No. 4, UT-0028  
Braztah No. 5, UT-0007  
Braztah No. 6, UT-0024  
Braztah No. 7, UT-0031

Dear Mr. Feight:

The majority of the Price River Coal Company operations are ongoing; disturbance of wildlife and resources have occurred for many years. We suggest that the mine plan include a vegetational map of the mine plan areas showing vegetational communities, species composition of those communities, and occurrences of natural water sources. The Service does not see a need for conducting any additional baseline surveys for those areas presently involved in coal mining operations.

The planned development in Crandall Canyon would need survey work conducted to determine the presence, use, and possible disturbance of raptors and other migratory bird species of high federal interest. This includes the portal area and also the access road to the portal area. We hope that the road design would include features minimizing impacts on the riparian habitat.

To the best of our knowledge, no endangered or threatened plant species occur in the area of the Crandall Canyon.

Should further activities in the Willow Creek area of the mining operation be initiated, it would be necessary to conduct similar surveys, as recommended, for Crandall Canyon on all areas proposed for disturbance in this segment of the mine plan areas.

We believe that there is an excellent opportunity during the development of a fish and wildlife plan to formulate programs, mitigate and/or enhance wildlife resources. We would be very pleased to work with the Company, as they develop the required fish and wildlife plan to provide advice or proposals that would enhance the wildlife resources in the area.

Sincerely yours,

  
Robert H. Shields  
Area Manager

*Final 4/1970*



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

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November 13, 1980

Mr. Don Crane  
Office of Surface Mining  
Region V  
Brooks Tower  
1020 Fifteenth Street  
Denver, Colorado 80202

*Zena*  
*Habit*  
*Pero*  
*Bay*  
*Crandall*  
*Permit*

RE: Crandall Canyon  
Price River Coal Company  
American Electric Power  
ACT/007/004

Dear Mr. Crane:

The Division staff has reviewed Price River Coal Company's Request for Modification to the Present Mining Plan for the No. 3 Mine with respect to the Company's request of September 24, 1980 to proceed with the following work:

- 1) Grade access road to Class III specs.
- 2) Remove and stockpile topsoil from the shaft construction site.
- 3) Prepare site for shaft contractor's equipment.
- 4) Initiate shaft construction.

The Division hereby authorizes the above-mentioned work to proceed with the following stipulations.

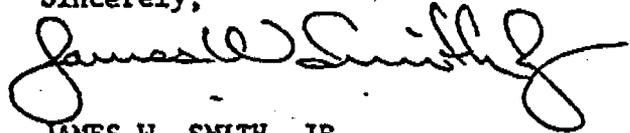
- 1) With respect to the catchment basins, the Division of Water Rights must be notified when construction of the catch basins is completed. The Division of Water Rights must be allowed to inspect said basins, and the catch basins must be breached when the project is completed. Approval of the basins by the Division of Water Rights does not waive approvals by other Utah State divisions.
- 2) The Division of Health requires specifications on the catch basins prior to construction. These include the dikes' width, slope, freeboard height and seepage levels.

Mr. Don Crane  
ACT/007/004  
November 13, 1980  
Page two

- 3) The Division of State History requires that Price River Coal Company will not affect in any way that portion of the existing road located 100 feet on either side of the stone building north of the road east of the shaft site. Price River Coal Company must locate the topsoil storage pile away from any structural ruins located on the north side of Crandall Canyon and west of the construction area. Price River Coal Company may, at a later date, be required to take additional protective measures prior to further construction.
- 4) The Utah Division of Wildlife Resources has "no immediate concern" and "recommend(s) that the Company be allowed to proceed with the outlined construction program."

The Division has no further comments or stipulations concerning the approval of construction as outlined above.

Sincerely,



JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

cc: Ken Hutchinson, PRCC  
Joe Davidson, AEP

JWS/btm

Maps and graphs mentioned in the monitoring plan were not included. Appropriate data displays such as maps, graphs, charts, tables, overlays and narrative descriptions are essential for the success of the program. It is suggested that the complete plan for water monitoring be separate from the annual summaries.

This office cannot approve Price River Coal Company's Surface and Ground Water Monitoring Plan until the above concerns are met.

If you have any questions concerning this review, please contact John Nadolski or Marianne Adams of my staff at (303) 837-3773.

Sincerely,

DONALD A. CRANE

Enclosure

cc: Trippe, USGS, Denver  
Moffitt, USGS, Salt Lake City  
Hutchinson, Price River Coal Company ✓



# United States Department of the Interior

IN REPLY REFER TO

3400  
(U-601)

BUREAU OF LAND MANAGEMENT  
Moab District  
Price River Resource Area  
P. O. Drawer AB  
Price, Utah 84501

September 11, 1980

Mr. Cleon B. Feight, Director  
Division of Oil, Gas and Mining  
1988 West North Temple  
Salt Lake City, Utah 84116

Attention: Mary Ann Wright

Dear Mr. Feight:

The Price office of the Bureau of Land Management is sending the attached recommendations in response to your request for consultation concerning the level of fish and wildlife information required for Price River Coal Company.

Thank you for the opportunity to provide input in this area of concern. We will be looking forward to working with you in the future.

Sincerely yours,

Leon E. Berggren  
Area Manager

Enclosure  
Recommendations

RECEIVED  
SEP 15 1980

DIVISION OF  
OIL, GAS & MINING

## GENERAL RECOMMENDATIONS

### Habitat Mapping

Habitat mapping, including vegetative communities, classified and high interest wildlife species seasonal use distributions, and special habitat features is recommended on all five of the mining facilities submitted. All mapping should be accomplished on a base map--overlay system on 1:24,000 scale topographic maps or (if available) same scale, distortion corrected aerial photographs. The maps should be accompanied by descriptive narration describing the various mapping delineations involved in each series of overlays.

#### 1. Vegetative Mapping

All present vegetative types occurring on each of the mine plan areas should be delineated on overlays. Included in narration or tabular form should be the following:

- A. Total acreage of each community
- B. Percent plant composition by dry weight for each community
- C. Canopy cover by species for each community
- D. Condition, successional stage and trend of all vegetative communities
- E. Present class, season, and amount of use of livestock

#### 2. Wildlife Species Seasonal Use Distributions

Classified and high interest wildlife species seasonal and or special use areas should be delineated on overlays. Included in narration or tabular form should be the following:

- A. List of all aquatic and terrestrial wildlife species occurring on the mine area.
- B. Status of all high interest or classified wildlife species which occur on the mine area should be provided.
- C. List acreage for each of the high interest and classified wildlife species.

#### 3. Special Habitat Features

All special habitat features (features which may significantly influence habitat for wildlife) should be identified and mapped. Below is a list covering the more common natural and man-made special habitat features.

## Natural Special Features

- Avalanche-Slide Area
- Cave
- Cave, Ice
- Cave, Lava
- Cliff
- Cone, Volcanic
- Dike, Volcanic
- Dune, Sand
- Insect Mounds
- Overhang
- Salting Area
- Seep
- Cold Springs
- Sink Hole
- Snag or Group of Snags
- Talus, Slope
- Talus, Field
- Wallow, Elk
- Waterfall
- Waste Land
- Island (too small for habitat type)
- Log Jam
- Down Timber
- Bluff
- Beaver Dam
- Muskrat House
- Cataracts (stream)
- Barren Lands
- Hot Springs
- Blowouts
- Mudflow
- Temporary Pond
- Small Natural Ponds

## Man-Made Special Features

- Bridge
- Fence
- Underpass
- Salting Area
- Goose Nesting Platforms
- Artificial Nesting Boxes
- Small Seedings
- Buffer Strip
- Building
- Bird Ramp
- Berm
- Culvert
- Dock
- Dredged Area
- Exclosure, Study Area
- Fish Migration Barrier (Man-caused)
- Gauging Station, Water
- Mining Activity
- Poles (Electrical and Telephone)
- Perches
- Road
- Trail
- Stream Improvement Structure
- Railroad
- Stream Crossing
- Shelter (overnight)
- Recreation Area
- Feeding Station
- Fire Break
- Seismographic Trail
- Oil Sump Pit
- Windmill
- Irrigation Diversion and Ditch
- Water Gap
- Stock Water Tanks and Ponds
- Corral and Loading Chute
- Artificial Wildlife Waters

Significance of special habitat features vary from one area to another. Professional judgment should be used to map special habitat features which indeed do influence wildlife habitat and its use.

Special emphasis should be placed in mapping all seeps, springs, wells, perennial intermittent and ephemeral streams, lakes, reservoirs and ponds. Narration of special habitat features should include the following.

A. Significant influence of special habitat features.

- B. Total surface acres of all lakes, reservoirs, and ponds as well as miles of stream.
- C. Stream velocity, gradient, width, depth, pool-riffle ratio and substrata type.

### SITE-SPECIFIC RECOMMENDATIONS

#### Fish and Wildlife Inventory Needs

##### 1. Aquatic

- A. Base line studies should be conducted in Willow Creek and Castle Gate mine to collect data on presence, abundance and variety of macroinvertebrates within portions of Willow Creek and the Price River which are adjacent to or within the mine plan areas.
- B. Fish populations should be studied in portions of the Price River and Willow Creek for the Willow Creek and Castle Gate facility. Characteristics of this population which need to be recorded include: species occurrence, relative species abundance, total population size.
- C. Physical characteristics of portions of Willow Creek and the Price River which adjoin the Castle Gate and Willow Creek mine plan areas should be recorded. These characteristics include representative stream, channel profile, velocity, flow, gradient pool-riffle ratio.
- D. Physical characteristics of the intermittent stream in the Crandell Canyon facility should be recorded. Length of flow, seasonal period of flow and representative stream width, velocity, and flow should be included.
- E. No aquatic studies are recommended for Sowbelly or Hardscrabble mine facilities as no perennial or intermittent water sources are known.

##### 2. Terrestrial Wildlife

###### A. Amphibians and Reptiles

A review of the species potentially occurring within each of the five mine plan areas should be provided.

###### B. Birds

Breeding raptor inventories should be conducted within  $\frac{1}{2}$  mile radius of all proposed surface developments and proposed exploration sites. Winter raptor surveys should be conducted to identify and protect concentration roosting areas for bald eagles.

Nongame bird inventories should be conducted in the riparian zones of the Willow Creek, Crandell Canyon and Castle Gate mine facilities. Species diversity and species density information should be collected.

A review of the species potentially occurring within each of the five mine plan areas should be provided.

C. Mammals

Inventory work should be done in each of the mine plan areas on a seasonal basis to determine concentration or critical use areas for deer, elk, and moose. Examples include critical winter use, fawning or calving areas, big game watering areas and migration routes. All impacts to these identified areas should be completely mitigated.

A review of the species potentially occurring within each of the five mine plan areas should be provided.

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

September 24, 1980

Mr. Donald Crane  
Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Mr. Jim Smith  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Preconstruction Meeting with Utah Division of  
Oil, Gas, and Mining, and Office of Surface  
Mining, on Price River Coal Company's Crandall  
Canyon Facilities

Dear Sirs:

We understand that authorization to proceed with the work outlined below does not imply tacit regulatory authority approval of the total facilities planned, and that such approval will be granted only upon submission and regulatory authority approval of detailed site engineering and reclamation plans.

It is our understanding that we will be granted authorization to proceed with the following work:

1. Grade access road to Class III specs.
2. Remove and stockpile topsoil from the shaft construction site.
3. Prepare site for shaft contractor's equipment.
4. Initiate shaft construction.

It is also our understanding that this authorization will be granted (orally or in writing) by October 1, 1980, contingent upon Price River Coal Company's submittal of the following information:

1. Quantity of topsoil to be removed.
2. Location and size of topsoil storage area.

Mr. Donald Crane  
Mr. Jim Smith  
September 24, 1980  
Page 2

3. Seed mixture to be used on stockpiled topsoil.
4. Mulch type and quantity.
5. Soil tests and amendments.
6. Vegetation information in the construction area.

Items 1 through 4 are attached. Item 5 will be done during removal of topsoil. Item 6 will be provided as soon as Harner & White complete the study. Such a study was authorized by Price River Coal Company as of September 18, 1980, to determine the species composition/diversity of the floral communities in the construction area.

Very truly yours,

PRICE RIVER COAL COMPANY

  
K. B. Hutchinson  
Chief Engineer

KBH:ga  
Attachments

cc: J. Nadolski - OSM  
R. Daniels - DOGM  
J. Davidson - AEP, Lancaster  
G. Cook - PRCC

PRICE RIVER COAL COMPANY

Item 1. Quantity of Topsoil to be Removed

Planimetered at 9.7 sq. in., say 10 in.<sup>2</sup>.

Map scale - 1" = 50', f = 50 x 50 = 2,500

10 x 2,500 = 25,000 sq. ft.

25,000 ÷ 43560 = 0.58 Acres disturbed area

Item 2. Location and Size of Topsoil Storage Area

See attached map for location of stockpile.

25,000 sq. ft. x 1/2 = 12,500 cu.ft.

Say, 5' high for stockpile, thus  $\frac{12,500}{5} = 2,500 = 50$

Stockpile = 50' x 50' x 5' =  $\pm$  0.06 Acres

A berm will be constructed around the pile, and any run-off from the pile will be directed to a temporary sediment pond.

Item 3. Seed Mixture to be Used on Stockpiled Topsoil

Topsoil stockpile will be seeded with barley on a temporary basis. The R.A. has been asked to approve a plan to place the topsoil under the blacktop for storage during the 30 years or so before reclamation of the site - if this is not approved, the pile will be re-seeded with a permanent mixture as designated by the R.A. Barley will be seeded at a rate of 30#/acre pure live seed - 30# x 0.58 ÷ 0.8 = 21.8, say 25# seed.

Item 4. Mulch Type and Quantity

Mulch of hay or straw will be applied by hand at a rate of 1-1/2 ton/acre. 3,000 x 0.58 =  $\pm$  35 bales. Track in with tractor or disc.

Item 5. Soil Tests and Amendments

During removal operations, the soil will be analyzed for determination of lime, fertilizer, or other soil

amendment requirements. These amendments will be applied in accordance with the soil tests, before seeding. Test results will be sent to the R.A. upon receipt from the laboratory.

Item 6. Vegetation Information in the Construction Area

Mr. R. Harner of Harner & White was given authorization to proceed with a determination of the species composition/diversity of the floral communities on September 18, 1980. As soon as his report is received, it will be forwarded to the R.A.

K. B. Hutchinson  
9/24/80

September 30, 1980

*Crandall - Permits*  
*Arch. Study*



SCOTT M. MATHESON  
GOVERNOR

*Hutchinson*  
*OSM*  
*DOGMA*

**DCES**

STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Mr. Ken Hutchinson  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

**Division of  
State History**  
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR  
307 WEST 2ND SOUTH  
SALT LAKE CITY, UTAH 84101  
TELEPHONE 801 / 533-5755

Dear Mr. Hutchinson:

This letter reaffirms the archeological clearance conducted in Crandall Canyon for the Price River Coal Company. As you know both private property and very limited Bureau of Land Management land is involved. I have indicated to BLM that no archeological sites were identified on their land, hence clearance is recommended. They, of course, have the final say.

The three historic sites reported in my previous letter are on private land. We can only recommend to you that they are apparently important (see attached Memo from Phil Notarianni, Historian) and hope that they can be avoided in your development. If they are to be destroyed, we would like to further document them and conduct a very limited study of their significance. Again I must say that you are in no way bound to finance the further documentation. We would, of course, hope to have your cooperation.

In sum, this letter provides both a recommendation to BLM for clearance and recommendations for dealing with the historic sites on private land, if these are threatened. As far as we are concerned, you are allowed to proceed with development.

If you have any questions, please let me know.

Sincerely,

*La Mar W. Lindsey*

La Mar W. Lindsey  
Assistant State Archeologist

LWL:ap

Enclosure

*Zero, w/o enclosures*  
*OSM - DEN (7)*  
*DOGMA - Smith*  
*Daniels*

MEMO

TO: La Mar W. Lindsay  
Assistant State Archeologist

DATE: Sept. 30, 1980

FROM: Phil Notarianni  
Preservation Historian,  
Utah State Historical Society

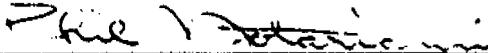
SUBJECT: Crandall Canyon Sites.

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On July 9, 1980, I visited the Crandall Canyon area at the request of Kay Sargent, staff archeologist. In her survey she identified three areas containing historic structures (sites A, B, and C of her report). I photographed those sites both in black/white and in color (slides). Kay had thoroughly mapped the sites. Between sites A and B I noticed a small, crude, wooden bridge that apparently crossed the streambed. In my opinion sites A, B, and C are of historical importance.

These sites have been identified as related to the sheep industry in the area. That industry, with its involvement of various ethnic groups, was of importance economically as it allowed Carbon County a diversity lacking in other Utah mining areas. Bruce Hawkins, historic archeologist, examined glass dinnerware samples gathered by me and placed them as in use during the 1920s and 1930s. These dates are probably the years of activity at these sites.

From Kay's report all sites are on private land. I would strongly recommend that the owners be encouraged, where possible, to preserve the sites (perhaps by moving them). Site C appears out of the immediate construction area, and perhaps the access road could be built further away from the structure. Once these sites are gone, the historical record of their existence also disappears. We have photos, but I would suggest that the land owners might acquire the services of Bruce Hawkins to examine the sites as an historic archeologist to retrieve all information possible prior to demolition. This would at least leave the historical record more complete and lead to a better understanding of sheep raising in the area.

  
\_\_\_\_\_  
Phil Notarianni  
Preservation Archeologist, USHS

PN:ap

MEMO

TO: La Mar W. Lindsay  
Assistant State Archeologist

DATE: Sept. 30, 1980

FROM: Phil Notarianni  
Preservation Historian,  
Utah State Historical Society

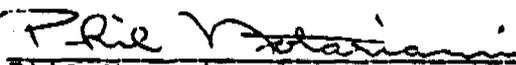
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\_\_\_\_\_  
Phil Notarianni  
Preservation Archeologist, USHS

PN:ap



United States Department of the Interior

OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202

OFFICE OF THE REGIONAL DIRECTOR

NOV 14 1980

*Zany - Davidson*  
*11/21/80*  
*Crandall Permits*

Melvin T. Smith  
State Historic Preservation Officer  
Division of State History  
307 West 2nd South  
Salt Lake City, Utah 84101

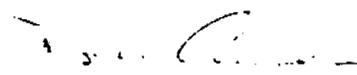
Dear Mr. Smith:

We have reviewed the revision of An Archaeological Survey in Crandall Canyon, Carbon County, Utah by La Mar W. Lindsay, and the 1980 work plan for the Braztah Mine (UT 0007) submitted by the Price River Coal Company. It appears that three historic sites, 42Cb215, 42Cb216, and 42Cb217, may be eligible for nomination to the National Register, although no determination has been sought. This action by the Price River Coal Company will not impact these sites at this time, when the following stipulations are implemented by the applicant.

- 1) The Company will instruct all personnel and contractors that no employees nor any vehicular traffic will be allowed on the sites.
- 2) There will be no road-grading operations nor other earth disturbing activities within 100 feet of site 42Cb215; the site being situated on the north side of the existing dirt road, east of the shaft site.
- 3) Site 42Cb217 (situated on the north side of Crandall Canyon and west of the construction area) will be fenced under the supervision of a qualified archaeologist prior to any earth disturbing activities. The fence will be of at least two strands of barbed wire. Topsoil stockpiles will not encroach on this site.
- 4) If future construction activities are going to impact these sites, the applicant will submit completed National Register nomination forms for all eligible sites, allowing the Office of Surface Mining to seek determinations of eligibility. A plan to mitigate the impact to these sites will also be submitted by the applicant to the regulatory authority and the Utah State Historic Preservation Officer for review and approval prior to approval of any future plans.

With these stipulations, the Office of Surface Mining recommends that there will be "no effect" to significant cultural resources by approval of this 1980 work plan. The stipulations will be included in the approval letter to the applicant. Your concurrence in this matter is hereby requested.

Sincerely,



DONALD A. CRANE

cc: ✓ K.B. Hutchinson, Price River  
Coal Company  
Mary Ann Wright, Utah, Division of  
Oil & Mining  
Craig Benson, Price, BLM

Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

OFFICES

Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

533-6146  
November 18, 1980

Alvin E. Rickers, Director  
Room 426 801-533-6121

K. B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Ut 84526

WATER POLLUTION CONTROL  
DEPARTMENT

RE: Crandall Canyon Facility

Dear Mr. Hutchinson:

We have reviewed the August 29, 1980 request for modification to the present mining plan for the Price River Coal Company #3 Mine. Additional information is needed on the sediment ponds and sanitary wastewater disposal facilities.

The proposed design of the subsurface wastewater disposal system to serve the bathhouse and office does not appear to meet all of the design requirements in the Code of Wastewater Disposal Regulations.

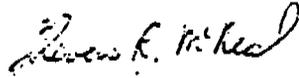
Part of the proposed sanitary leach field would not be the necessary distance from the stream channel. At least 100 feet of separation should be provided or lining of the watercourse will be necessary. The remaining proposed drainfield area is not large enough to handle the 630 proposed employees. The possible location of two drainfields was discussed with your staff during an inspection at the site October 29, 1980. In order for us to complete our review, the following information should be submitted to show that the design meets Part V of the Code of Wastewater Disposal Regulations:

1. Drainfield locations.
2. Results of at least two percolation tests in each drainfield.
3. Maximum anticipated groundwater level.

Furthermore, the proposed aeration system should be eliminated since it is not necessary for an effluent going to an absorption field.

Additional plans and information on the sediment ponds also need to be submitted for our review and approval. Information on the dike width, slope, height, freeboard, sediment level, seepage rate, compaction specification, etc. should be provided.

Sincerely,



Steven R. McNeal  
Public Health Engineer  
Bureau of Water Pollution Control

SRM:clr

cc: James Smith - Oil, Gas and Mining  
Southeastern 208  
Southeastern District Health Dept.

Scott M. Matheson  
Governor

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH  
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110



Alvin E. Rickers, Director  
Room 428 801-533-6121

James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

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533-6146

10-10-82

*Industrial*  
**FILE COPY**

Mr. K.B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

RE: Sediment Ponds

Dear Mr. Hutchinson:

I have reviewed your August 15, 1980 letter to EPA regarding thirteen sediment ponds. A search of our files fails to indicate that we have received sufficient information on these ponds. Section 1.2.2 of the Utah Wastewater Disposal regulations requires that the Water Pollution Committee must give approval for the construction of any wastewater disposal system. Therefore, we request that you submit maps, plans, specifications, and design calculations for these ponds.

Sincerely,

Steven R. McNeal  
Public Health Engineer  
Bureau of Water Pollution Control

laf

cc: Southeast District Health Department  
Southeast 208  
Oil, Gas & Mining

9 MAUS  
PERO



SCOTT M. MATHESON  
Governor

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Salt Lake City, Utah 84116  
(801) 533-5771

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

December 5, 1980

Mr. K. B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

RE: Sediment Pond Plan Comments  
Hardscrabble & Sowbelly Canyons  
Price River Coal Company  
ACT/007/004  
Carbon County, Utah

Dear Mr. Hutchinson:

Enclosed is a copy of OSM's comments on the addendum to the Sediment Pond plans for Hardscrabble and Sowbelly canyons submitted by Price River Coal Company. The Division has also reviewed the plans and concurs with the information OSM is requesting.

In addition, the State requests submission of certified calculations showing that the existing ponds at the Castle Gate site are adequately sized and designed to meet the required performance standards. It is also noted in the section outlining channel design, that channel velocities will be kept below 15 feet per second. The Division suggests a maximum channel velocity of 5 feet per second to insure adequate stability and prevent excessive scouring or incising of the channel.

If you have any questions regarding the requested information, please contact us.

Sincerely,

D. WAYNE HEDBERG  
RECLAMATION HYDROLOGIST

cc: Don Crane, OSM

Enclosure

DWH/btm

catch basins must be reclaimed when the project is completed. Approval of the basins by the Division of Water Rights does not waive approvals by other regulatory agencies.

7. The Utah Division of Health requires specifications on the catch basins prior to construction. These include the dikes' width, slope, freeboard height and seepage levels.

This approval becomes effective only after Price River Coal Company accepts these stipulations in writing.

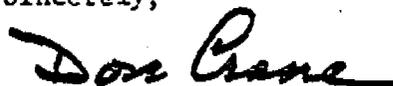
To further clarify the approval, the only work to be started this year is to: grade the access road; grub, clear, remove, stockpile, store, and seed topsoil from the shaft site area (the site areas is defined as the area within the heavy line on the enclosed map); level the site area; and start shaft construction. The temporary seed mixture will consist of annual barley at a rate of 26 ponds of pure live seed per acre, and the temporary sediment control basins (and associated diversion) will be constructed prior to initiation of the shaft construction.

Because cultural resource documentation of these sites is not complete and OSM has not completed compliance procedures pursuant to Section 106 of the National Historic Preservation Act of 1906, we cannot concur with the recommendations of the Utah Archaeologist Research Corporation at this time. We will consult with the State Historic Preservation Officer when the final report has been received.

Also, in your letter of September 24th, you asked for our comments on the conceptual idea of placement of topsoil under blacktop. Before this concept can be reviewed, Price River Coal must provide a detailed description of the preparation of topsoil and blacktop (i.e., compaction, oiling, and other operations), the material to be used to blacktop, and the possible contamination of topsoil from the blacktop.

If you have any questions in regard to this review and approval, please contact John Nadolski (303) 837-3773 of my staff.

Sincerely,



DONALD A. CRANE

Enclosure (map)

cc: Smith, DOGM, Salt Lake City



United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202

OFFICE OF THE REGIONAL DIRECTOR

DEC 23 1980

Mr. K.B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

Dear Mr. Hutchinson:

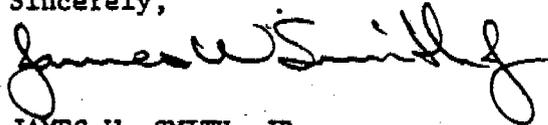
This office, in coordination with Utah Division of Oil, Gas, and Mining (DOGM), has reviewed your September 24, 1980 proposal in regard to two ventilation shafts in Crandall Canyon. Based upon this review and review of your updates of October 17, October, 29, and November 4, as well as concurrence from the U.S. Geological Survey (dated November 5), we approve your plan with the following stipulations:

1. Evidence of the bond (\$350,000) payable to U.S. Government and the State of Utah, must be submitted. Also, Price River Coal must commit to the requirements of 30 CFR 806.16 (updated August 6, 1980).
2. The Company will instruct all personnel and contractors that no employees nor any vehicular traffic will be allowed to disturb the known cultural resources.
3. There will be no road-grading operations nor other earth disturbing activities within 100 feet of site 42Cb215; this site is located on the north side of the existing dirt road, east of the shaft site.
4. Site 42Cb217 (situated on the north side of Crandall Canyon and west of the construction area) will be fenced under the supervision of a qualified archaeologist prior to any earth disturbing activities. The fence will be of at least two strands of barbed wire. Topsoil stockpiles will not encroach on this site.
5. A final report detailing investigations at the three historic sites will be submitted by the applicant to the Utah State Historic Preservation Officer, the Utah Division of Oil and Mining, and the Office of Surface Mining. No construction activities shall be allowed to impact these sites until this report is accepted and approved by the above agencies and a determination made as to the sites' eligibility for nomination to the National Register of Historic Places (pursuant to 36 CFR 63.3) is made. If sites are determined eligible, a plan to mitigate any future impact will also be submitted by the applicant to the above mentioned agencies for review and approval prior to any additional land disturbing activities at these sites (pursuant to 36 CFR 800).
6. With respect to the catchment basins, the Utah Division of Water Rights must be notified when construction of the catch basins is completed. The Division of Water Rights must be allowed to inspect said basins, and the

Mr. K. B. Hutchinson  
ACT/007/004  
December 30, 1980  
Page two

The Division appreciates the continued cooperation and coordination efforts which Price River Coal has provided in the past and hopes that this will continue in the future. If any questions arise concerning the requested information, please call Wayne Hedberg or myself.

Sincerely,



JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

cc: Don Crane, OSM

JWS/DWH/btm

Zeno - Wiley



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1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

December 30, 1980

Mr. K. B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

RE: Cross-drain Variance Request,  
Sowbelly Gulch Access Road.  
Price River Coal Company  
ACT/007/004  
Carbon County, Utah

Dear Mr. Hutchinson:

Upon review of your recent request for a variance from the requirements of placing cross-drains in the Sowbelly Gulch access road, the Division forwards the following joint (State/Federal) response.

The proposal is given preliminary approval based upon the limited data submitted by Price River Coal Company thus far. Final review and approval may be granted upon receipt of additional information which adequately satisfied the provisions as outlined below.

1. Verify that the drainage system which currently flows to Spring Creek does not, and/or will not, encroach upon the road in such a manner as to cause excessive erosion.
2. Provide appropriate maps and/or drawings showing the affected stream section(s) and the specific sediment control measures to be utilized by Price River Coal Company to provide adequate erosion protection from the flow velocity of the 10 year-24 hr. precipitation event (i.e., velocity dissipators to reduce flow to 5 fps or less).
3. Assurance that continued routine maintenance will be provided for the drainage along both sides of the Sowbelly Gulch road.

Diana Christensen  
February 2, 1981  
Page 2

The conclusions and documentations are acceptable, however, the methodology of this report is in question, and in the future, more attention should be given to the history portion. If you have any questions or concerns, please contact Jim Dykman, Cultural Resource Advisor, or Wilson G. Martin, Preservation Development Coordinator, (801) 533-7039.

Sincerely,



Melvin T. Smith  
Director and  
State Historic Preservation Officer

JLD:jr

cc: Mr. Kay B. Hutchinson, Price River Coal Company, P. O. Box  
629, Helper, Utah 84526

Mr. William Killam, Office of Surface Mining, Brooks  
Towers, 1020 Fifteenth Street, Denver, Colorado 80202



SCOTT M. MATHESON  
GOVERNOR

RW  
KBE!  
KBE!

STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR  
300 RIO GRANDE  
SALT LAKE CITY, UTAH 84103  
TELEPHONE 801 / 533-5755

February 2, 1981

Diana Christensen  
Utah Archeological Research Corporation  
87 East Center, Suite 103  
Spanish Fork, Utah 84660

*C-Archaeological*

RE: Crandall Canyon Mine, Carbon County

Dear Ms. Christensen:

The Utah State Historic Preservation Office staff has received for review the "Documentation and Recommendations for Determination of Eligibility to the National Register of Three Archeological Sites in Crandall Canyon, Carbon County, Utah". This report was prepared by Utah Archeological Research Corporation as part of the mining plan for the Price River Coal Company in Crandall Canyon, Utah. After review by the staff, it is the opinion of the staff that the study is clearly written and deals adequately with the sites, and agrees with the determinations of eligibility for those sites made by UTARC.

However, our staff is concerned about this report and its dealings with historic sites. It appears unsophisticated in its approach to historical inquiry, and would have easily led to misjudgment in other situations where more complex sites were located. Basically, the authors are unable to place the site, its interpretations, or questions of methodology in the context of historical study or nomination to the National Register of Historic Sites. They do, to their credit, struggle with the task of applying National Register criteria to this particular situation. It is felt that a historian, architectural historian, or folklife specialist should have been involved in the interpretation of these sites.



United States Department of the Interior

SL-029093-  
046653

GEOLOGICAL SURVEY

Office of the District Mining Supervisor  
Conservation Division  
2040 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

Zanf - Hartley  
Keller  
Wiley

February 20, 1981

Mr. Ken Hutchinson, Chief Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

Dear Ken:

Enclosed is a copy of our memorandum of November 5, 1980, to the Regional Director, Office of Surface Mining which you requested during my recent inspection of your mines and wash plant.

Sincerely yours,

Eugene W. Pearson  
Mining Engineer

Enclosure

Scott M. Matheson  
Governor



STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

533-6146  
February 11, 1981

James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

OFFICES

Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

Robert Wiley  
Environmental Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, UT 84526

RE: Crandall Canyon  
Sediment Ponds

Dear Mr. Wiley:

I have reviewed the Price River Coal Company's proposed sediment ponds in Crandall Canyon. To indicate compliance with the Utah Code of Wastewater Disposal Regulations the following information must be submitted:

1. Plan review of the ponds showing dike width and access road of at least eight feet for maintenance vehicles.
2. Increased dike freeboard to at least two feet in pond number 1.
3. Oil skimming and floating debris retention device on the overflow outlet.
4. Riprap or other bank stability device at the outlet.

The ponds will not need to be lined with bentonite provided that seepage through the dike will not effect its stability.

You may call me at 533-6146 if you have any questions on these requirements.

Sincerely,

*Steven R. McNeal*  
Steven R. McNeal  
Public Health Engineer  
Bureau of Water Pollution Control

laf

cc: Oil, Gas & Mining  
Southeastern 208  
Southeastern District Health Dept.

Office of the District Mining Supervisor  
Conservation Division  
2040 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

November 5, 1960

Memorandum

To: Regional Director, Office  
of Surface Mining

From: District Mining Supervisor

Subject: Price River Coal Company, Revisions to  
New Mining and Reclamation Plan for Ventilation  
and Access Shafts, Grandall Canyon

We have reviewed the subject plan and have no comment regarding the surface work.

We do see the need for these proposed shafts to provide the additional ventilation needed to allow the orderly and economic development of the coal reserves. Because of the limited ventilation, the mine management has been hard pressed to develop these coal reserves and maintain a mining cost that is not prohibitive. In order to start a needed development section it has been necessary to restrict or stop work in another critical development section.

The inability to timely accomplish the needed development could result in a continued high cost mining operation and the possible loss of coal reserves.

We urge the timely approval of the plan to prevent unnecessary delay of a project needed to improve working conditions for the miners, and to help turn a high cost mining operation to one more able to provide needed coal at a competitive cost. This improved access and increased ventilation will be necessary to obtain maximum economic recovery of the coal reserves.

Jackson W. Hoffitt

cc: Denver

G. Pearson:jw  
Disc V-4 A-10

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

*Zerof*

*Bisoy  
Hamb  
Perc  
Wiley  
Hartley  
Keller*

February 21, 1981

CERTIFIED MAIL - NO. 263884  
RETURN RECEIPT REQUESTED

Mr. Donald A. Crane  
Regional Director  
U. S. Department of the Interior  
Office of Surface Mining  
Reclamation and Enforcement  
Brooks Towers  
1020 15th Street  
Denver, Colorado 80202

Attention: Mr. John Nadolski

Dear Sir:

I thought we had agreed to all the stipulations in your letter of December 23, 1980, by my various letters. However, I have been advised that we should formally agree to the conditions in your letter.

We hereby accept the stipulations in the above-mentioned letter.

Very truly yours,

PRICE RIVER COAL COMPANY

*K. B. Hutchinson*

K. B. Hutchinson  
Chief Engineer

KBH:ga

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

February 26, 1981

Mr. Donald Crane  
Regional Director  
U. S. Department of the Interior  
Office of Surface Mining  
Brooks Towers  
1020 - 15th Street  
Denver, Colorado 80202

Dear Mr. Crane:

I am submitting the completed plan for our Crandall Canyon development as a sub part of our entire mine plan area, to be submitted next month. We have discussed making this submittal, separately, with the Division of Oil, Gas, and Mining, Utah, so that we may accelerate approval and continue construction activities beyond those granted by your letter of December 23, 1980. The Crandall Canyon information will again be included as a sub section within our mine plan to avoid confusion. Our Mr. Wiley discussed this action with Mr. Nadolski on February 25, 1981.

Also, please find enclosed a copy of the letter of transmittal of six (6) copies of this plan to the Division of Oil, Gas, and Mining.

Very truly yours,

PRICE RIVER COAL COMPANY



K. B. Hutchinson  
Chief Engineer

KBH:ga

Encl. - Seven (7) copies, Crandall Canyon Submittal

cc: Gordon Cook, PRCC  
Robert Wiley, PRCC  
Gerald Hartley, AEP, Lancaster  
Michael Keller, Attorney at Law, SLC

Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
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State Health Laboratory

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

533-6146

February 25, 1981

Robert L. Wiley  
Environmental Engineer  
Price River Coal Co.  
P.O. Box 629  
Helper, UT 84526

RE: Crandall Canyon  
Sediment Pond

Dear Mr. Wiley:

We have reviewed the revised plans and information for the Price River Coal Crandall Canyon sediment pond 014. The plans and information submitted February 19, 1981 and January 27, 1981 were reviewed.

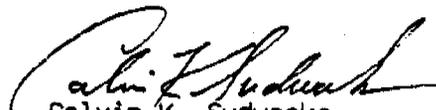
As a result of our review the plans for this Price River Coal sediment pond in Crandall Canyon are approved. This letter constitutes a construction permit for that pond.

The excavated pond is to provide approximately 35,000 cubic feet of settling for the surface runoff from a ten year twenty-four hour 1.9 inch rainfall on the mine portal disturbed area. The disturbed area will also have a two foot high berm to prevent runoff from entering the stream channel. The pond includes two four feet high check dams which are riprapped. The emergency outlet will have an oil skimmer baffle and riprap.

Should the effluent not meet State or Federal standards, you must provide the necessary additional treatment.

Sincerely,

UTAH WATER POLLUTION COMMITTEE

  
Calvin K. Sudweeks  
Executive Secretary

SRM:laf

cc: Oil, Gas and Mining  
Southeast 208  
Southeastern District Health Department

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

March 2, 1981

CERTIFIED MAIL - NO. 263886  
RETURN RECEIPT REQUESTED

Mr. Steven R. McNeal  
Public Health Engineer  
Bureau of Water Pollution Control  
Utah Department of Health  
150 West Temple  
Salt Lake City, Utah 84110

Dear Steven:

Here are the plans and design data for the next pond that we will be building soon. On the map titled Preliminary Plot Plan - Crandall Canyon Shaft Development, the area to be contained is outlined in blue. The pond designation is 013 as per our NPDES permit. This has been designed as an excavated pond. The dimensions are approximately 110' by 120', with an average eight (8) foot depth.

Design data and calculations for this structure were determined by Lee Wimmer of Horrocks Engineering (see enclosed Engineer's Certification). As in our prior pond construction, the following construction details will be included:

- An oil skimming device on the drop inlet.
- Eight (8) feet minimum access around the pond.
- A two (2) foot berm around the affected area.
- A riprapped spillway discharge point.

We will need to construct this pond in approximately thirty days. I hope this gives you sufficient review time. Thank you for your attention to this matter.

Sincerely,

PRICE RIVER COAL COMPANY

*Robert L. Wiley*  
Robert W. Wiley  
Environmental Engineer

RWW:ga  
Enclosure

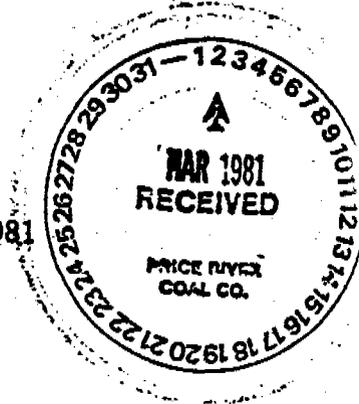


# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Moab District  
Price River Resource Area  
P. O. Drawer AB  
Price, Utah 84501

IN REPLY REFER TO

3500  
(U-601)



March 2, 1981

Mr. Robert Wiley  
Price River Coal Company  
P. O. Box 609  
Helper, Utah 84526

Dear Mr. Wiley:

We have contacted the Office of Surface Mining in response to your concerns for use of public land in Crandall Canyon.

We informed John Nadolski of the OSM that because the Crandall Canyon project, including the road was covered in an approved mining plan, we would not require a right-of-way.

We also informed Mr. Jim Smith of the Utah Division of Oil, Gas and Mining that this was our policy for use of public lands on lease within the permit area.

Please let us know if we can be of further assistance.

Sincerely yours,

Leon E. Berggren  
Area Manager

Scott M. Matheson  
Governor



STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

533-6146

March 16, 1981

James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

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Medical Examiner  
State Health Laboratory

Robert L. Wiley  
Environmental Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, UT 84526

RE: 013 Sediment Pond

Dear Mr. Wiley

We have reviewed the plans and information submitted March 2, 1981 for the Price River Coal Crandall Canyon sediment pond 013. The plot plan, pond cross section and the Horrocks and Carollo Design calculations were reviewed.

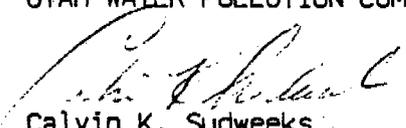
As a result of our review, the plans for this sediment pond are approved provided the sediment level is at least three feet below the outlet. This letter constitutes a construction permit for the 013 pond.

The excavated pond is to provide approximately 45,000 cubic feet of settling for the surface runoff from a ten year twenty-four hour 1.9 inch rainfall in the mine portal disturbed area. The pond outlet is to be constructed with an oil skimming baffle and riprapped at the stream. There will also be a two foot high berm around the disturbed area to contain the runoff.

Should the effluent not meet State or Federal standards, additional treatment must be provided.

Sincerely,

UTAH WATER POLLUTION COMMITTEE

  
Calvin K. Sudweeks  
Executive Secretary

SRM:laf

cc: Oil, Gas, & Mining  
Southeastern District Health Department  
Southeastern 208

E. Smay  
R. Wiley



OIL, GAS, AND MINING BOARD

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Governor

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Chairman

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Executive Director,  
NATURAL RESOURCES

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

CLEON B. FEIGHT  
Director

March 13, 1981

**RECEIVED**

MAR 18 1981

**GORDON COOK  
PRICE RIVER COAL CO.**

Mr. Gordon Cook  
Vice President & General Manager  
Price River Coal Company  
Box 629  
Helper, Utah 84526

RE: Crandall Canyon Project  
ACT/007/004  
Carbon County, Utah

Dear Mr. Cook:

Pursuant to my telephone conversations of March 10th and 11th with Mr. H. Michael Keller, Mr. Ken Hutchinson and Mr. Joe Davidson, the following clarification of the position of the Division of Oil, Gas and Mining relative to the above referenced project was reached.

With respect to the Crandall Canyon development, approval by the Division to start or initiate shaft construction constitutes authorization to begin and continue to completion the construction of the two mine shafts associated with the project. Construction is limited to the shafts and includes compliance with all applicable permanent program performance standards relative to protection of the environment.

Should you have any questions relative to this clarification please don't hesitate to call.

Sincerely,

JAMES W. SMITH, JR.  
COORDINATOR OF MINED LAND DEVELOPMENT

JWS/te

cc: Joe Davidson, AEP(Lancaster, Ohio)  
Don Crane, O.S.M.



United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202

Zmoy - Wiley  
Haub  
Keller  
Reynolds

OFFICE OF THE REGIONAL DIRECTOR

MAR 20 1981

Mr. James Smith, Jr.  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

RE: Crandall Canyon Mine, Carbon County

Dear Mr. Smith:

The Office of Surface Mining cultural resources staff have received and reviewed submissions concerning the cultural resource stipulations placed on the Crandall Canyon Mine by this Office in December 1980. With receipt of the final cultural resources report authored by Diana Christensen and the statement of eligibility (attachment 1) from the Utah State Historic Preservation Officer, who finds none of the located sites eligible for inclusion on the National Register of Historic Places: Price River Coal Company is considered to have fulfilled stipulations (2, 3, 4, 5) which relate to cultural resources.

If you have further questions please feel free to contact Judy Shafer or Foster Kirby (303) 837-5656 of our staff.

Sincerely,

DONALD A. CRANE

Attachment

cc: John Nadolski, OSM  
Robert Wyly, Price River Coal Company  
P.O. Box 629, Helper, Utah 84526

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

March 19, 1981

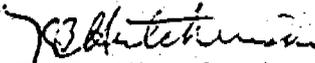
Mr. John Nadolski  
Office of Surface Mining  
U. S. Department of the Interior  
Brooks Towers  
1020 - 15th Street  
Denver, Colorado 80202

Dear Sir:

Under separate cover, seven copies of Price River Coal Company's Mining and Reclamation Plan were sent to your office yesterday, March 18, 1981.

Very truly yours,

PRICE RIVER COAL COMPANY

  
K. B. Hutchinson  
Chief Engineer

KBH:ga

cc: R. L. Wiley  
James Smith, D.O.G.M.



## United States Department of the Interior

SL-029093  
SL-071737

## GEOLOGICAL SURVEY

Office of the District Mining Supervisor  
Conservation Division  
2040 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

March 30, 1981

## Memorandum

To: Regional Director, OSM, Denver

From: District Mining Supervisor, USGS-CD,  
Salt Lake City

Subject: Price River Coal Company No. 3 Mine,  
Crandall Canyon Project

The one volume submittal of the subject project which was transmitted with your letter dated March 12, 1981, was received in this office on March 19, 1981. This is a complete subsection to the permanent program mining and reclamation plan to be submitted by the company in the near future. We have reviewed this submittal for completeness relative to USGS-CD responsibilities under Federal regulations 30 CFR 211.10 (c) dated May 17, 1976, as amended August 22, 1978, and pursuant to the cooperative agreement between our offices. We have determined the submission to be complete and technically adequate for our administration of the associated Federal leases. The submitted material is principally a surface facility associated with shafts that are necessary to provide improved access and mine ventilation to more completely recover the coal resource. The shafts will give access to three minable coal seams and are compatible with the underground approved mine plans.

*Jackson W. Moffitt*  
Jackson W. Moffitt

cc: Denver  
Price River Coal  
Mine Plan File





SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

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Director

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MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

April 17, 1981

Mr. John Nadolski, Hydrologist  
U. S. Department of the Interior  
Office of Surface Mining, Region V  
Brooks Towers  
1020 Fifteenth Street  
Denver, Colorado 80202

RE: Approval Recommendation  
for Ephemeral Stream  
Crossing  
Crandall Canyon  
Properties  
ACT/007/004  
Carbon County, Utah

Dear John:

Enclosed is a copy of the materials submitted by Price River Coal Company in response to the Division's letter dated April 8, 1981, requesting additional information concerning use of an ephemeral stream crossing.

Based upon the review of said information, the Division feels the company has adequately addressed the concerns questioned.

After talking with you on the phone (April 15, 1981) and receiving your concurrence, the Division has given verbal approval to PRC Company, due to the short time circumstances involved for their reseeding schedule, and will send written approval upon receipt of your formal written response.

If you have any comments or questions, feel free to call me.

Sincerely,

D. WAYNE HEDBERG  
RECLAMATION HYDROLOGIST

cc: Robert Wiley, PRC  
James W. Smith, DGM

Enclosure

DWH/tn

Scott M. Matheson  
Governor



STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

533-6108

April 22, 1981

Alvin E. Rickars, Director  
Room 426 801-533-6121

James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
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Health Care Financing  
and Standards

OFFICES

Administrative Services  
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Policy Development  
Medical Examiner  
State Health Laboratory

Robert L. Wiley  
Price River Coal Company  
P.O. Box 629  
Helper, UT 84526

Re: Air Quality Approval Order  
for Petrochemical Storage Tanks  
and Diesel Fueled Emergency  
Power Equipment in Crandall  
Canyon (Carbon Co.)

Dear Mr. Wiley:

On April 19, 1981 the Executive Secretary published a notice of intent to approve your petrochemicals storage tanks & drums and diesel fueled generator at the Crandall Canyon Surface Operation. The 30-day public comment period expired May 18, 1981 and no comments were received.

This air quality approval order authorizes the installation/ construction and operation of the tanks, drums and diesel generator as proposed in your notice of intent dated March 25, 1981 with the following conditions:

1. Diesel generator exhaust shall not exceed 20% opacity, per Section 4.1.4, Utah Air Conservation Regulations, except for 3 minutes in any hour.
2. Petrochemicals to be stored shall be contained in underground or surface steel tanks and barrels as proposed.
3. The Executive Secretary shall be notified when the surface facility is completed as an initial compliance inspection is required.

Sincerely,

Brent C. Bradford  
Executive Secretary  
Utah Air Conservation Committee

MRK:js

cc: Southeastern Dist. Health Dept.  
EPA/Region VIII (N. Huey)  
Utah Div. of Oil, Gas & Mining (J. Smith)



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Office of the District Mining Supervisor  
Conservation Division  
2040 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

SL-G29093  
U-056184  
U-25683  
SL-046552  
SL-046442

April 24, 1981

Memorandum

To: Regional Director, O&M, Denver

From: District Mining Supervisor, USGS-CO,  
Salt Lake City, Utah

Subject: Price River Coal Company

By letter dated March 25, 1981, you forwarded to this office (received March 27, 1981) an unwieldy volume (approx. 7 inches thick) of the subject mining and reclamation plan. This submittal has been reviewed for completeness and technical adequacy pursuant to the cooperative agreement between our offices and for conformance with regulations 30 CFR 211.10 (c) dated May 17, 1976, as amended August 22, 1978. The following are our comments:

1. On page 21 of Chapter I the submitter states an attempt was made to adhere to the Division of Oil, Gas, and Mining's "Permit Applications—General Guideline for Organization Format and Content" (revised November 3, 1980) during the compilation of this document. The US regulations were not considered and are not satisfied if this one-volume submittal is to be a complete mining and reclamation plan. The only data that can be considered for USGS-CO requirements is where there is duplication of requirements by the DGM and USGS-CO.

2. In chapter II on page 12 it states the following licenses and permits are currently in effect: (Attachment ones listed)

MSM—Roof Control Plan, Mine No. 3  
MSM—Ventilation Plan, Mine No. 3  
MSM—Approved Mining Plan, April 27, 1977  
DGM—Mining Plan permit, February, 1976

Information required by the "Permits" on GMS & MSM are not included as a part of this submittal and must be included to have a complete mining and reclamation plan on file with the agencies involved and for approval by the Secretary.

3. Since the US regulations referred to above were not directly addressed or cross-referenced, a listing of the specific parts needing additional information will be listed below with an explanatory brief:

(a) 211.10 (c)(2) Description of geologic conditions...shall include, as a minimum, potential problems areas; and a description of the structural features of the coal and overlying strata, including faults, cleats, joints, and structures.

(b) 211.10 (c)(6)(1) The nature and extent of coal deposit...including estimated recoverable reserves.

(c) 211.10 (c)(6)(ii) The mine plan for a logical mining unit must show the mining of all reserves in a period of not more than 40 years. The complete recovery is shown as 48 years for mine no. 5, 81 years for Price Canyon mine, and 46 years for the Cordingly Canyon mine.

(d) On page 3 of chapter III, it states "where two seams of minable coal are within 30 feet of each other, then only the more economically minable of the two seams is scheduled to be mined."

The GS will require the top minable seam to be mined first rather than have it sterilized or destroyed. A much greater potential of a spontaneous combustion fire is possible with the upper seam broken up and becoming a part of the gob or caved material. Situations of this type must be reviewed with the GS.

(e) 211.10 (c)(6)(v) A list of all major equipment.

(f) 211.10 (c)(6)(vii) The method of operation and measures by which the operator plans to comply...30 CFR 211.4 and 211.40 and any special terms and conditions of the lease permit or license. This can be by a narrative statement including only those items related to resource recovery.

(g) 211.10 (c)(6)(viii) The anticipated starting and termination dates of each phase of the mining operation and number of acres of land to be affected.

(h) 211.10 (c)(6)(x) The measures for ensuring the maximum practicable recovery of the mineral resource. The GS must review and approve any plans to leave or abandon coal.

(i) 211.10 (c)(6)(xiv) Plans for protecting oil, gas, and water wells including oil, gas, or water resources encountered underground.

(j) 211.10 (c)(6)(xv) Any justification for not recovering any coal deposits that may be detrimentally affected in terms of future recovery by the development operations proposed.

(k) Additional miscellaneous data required to assist in evaluating underground mine plans.

(1) Section 101 of the State Constitution.

(2) Underlying geology.

(3) The State Department of Geology, Bureau of Geology and Mineral Resources (1974, 1975, 1976) and the State Department of Geology, Bureau of Geology and Mineral Resources (1977, 1978, 1979).

(4) The complete mine plan, including all maps, sections, and drawings for coal control and ventilation systems.

These plans must be submitted to the GS for review and approval. The GS will require the operator to submit the plans to the GS for review and approval.

STATE OF MONTANA

cc: Denver  
Price River Coal  
MCS&M



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

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E. STEELE McINTYRE

June 30, 1981

Mr. Robert L. Wiley  
Environmental Engineer  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

RE: Crandall Canyon  
Power Line Construction  
Approval  
ACT/007/004  
Carbon County, Utah

Dear Mr. Wiley:

The Division has reviewed Price River Coal Company's (PRCC) request to construct a power line in Crandall Canyon and has found the proposal to be in accord with the proposed permanent program submittal. The Division, with verbal concurrence of OSM Region V, hereby issues approval to PRCC to construct a 46 kilovolt transmission line from the substation at the north end of Hardscrabble Canyon to the site for the substation yet to be constructed in Crandall Canyon. This approval is subject to the stipulations stated herein.

As a "minor modification" to the existing Price River Complex interim mine plan, this approval is subject to review and final approval of the permanent program submission received by the Division on February 27, 1981, and March 20, 1981. As agreed to in conversations with you, the Division of Oil, Gas and Mining has conditioned the approval to PRCC, herein the Applicant, to comply with the following stipulations:

Stipulation 6-81-1

The Applicant agrees to obtain and provide to the Division of Oil, Gas and Mining, prior to construction of the power line, a letter from the Division of Wildlife Resources stating that "the power line and its construction will have no adverse impact on raptor nest sites."

Mr. Robert L. Wiley  
ACT/007/004  
June 30, 1981  
Page two

Stipulation 6-81-2

The Applicant agrees to construct the entire power line to the same terms and conditions as set forth in the BLM right-of-way permit

Stipulation 6-81-3

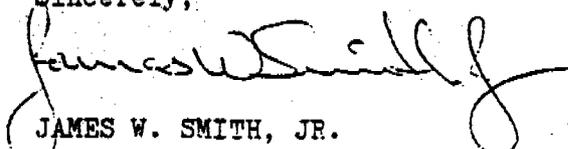
The Applicant agrees to be in compliance with the UMC 817 regulations in Crandall Canyon at the time of initiation of power line construction

Stipulation 6-81-4

Any excavation of soils incurred to sink foundation of pole supports shall be temporarily protected from construction activity and respread and reseeded following construction. A seed list and the rate per acre to be used in revegetation shall be submitted.

If you have any questions regarding these stipulations, please call Mary Ann Wright of my staff. The Division is in the process of reviewing the Crandall Canyon submission for completeness of application and permanent program compliance. We will be sending this review to you in the near future.

Sincerely,

  
JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

cc: John Hardaway, OSM  
Mark Mackiewicz, BLM, Price  
Mike Keller  
Larry Dalton, DWR

JWS/MAW/btm

**PRICE RIVER COAL COMPANY**

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

1AWD  
D.L.C.  
7-17-81

July 15, 1981

Mr. James W. Smith, Jr.  
Coordinator of Mined Land Development  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Assembly Area and Helicopter Landing Pad  
for Power Line Contractor

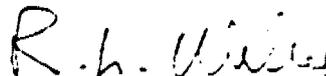
Dear Mr. Smith:

During a telephone conversation on July 10, 1981, I informed you of our need for an area to be used for materials and equipment storage, pole assembly, and for helicopter landing, pick-up and re-fueling. The site we wish to use is about five (5) acres of the area on Willow Creek affected by mining activities prior to 1977. Although we eventually intend to re-open the old Castle Gate No. 2 Mine as partial access to our eastern reserves, this intended temporary usage of the projected areas does not constitute that re-opening. The duration of our temporary need will parallel the time required by the contractor, Wasatch Electric, to complete the power line from Hardscrabble to Crandall Canyon.

Berms and diversions will be constructed to control or contain drainage on and away from the intended area. The present surface of the area of intended use is sparsely revegetated with a combination of weeds and native plants. No original topsoil exists. We do not wish to disturb the surface vegetation any more than necessary so as to minimize dust during helicopter landing and take off. Any topsoil needed for reclamation at the area will be obtained at the time of reclamation.

I have enclosed four (4) maps and a color key to 1"=50' maps. I have delineated the area of intended use and shown the location of drainage control to be constructed. If any additional information is required, please notify me. Our power line contractor intends to commence activity by July 29, 1981. We will immediately begin to install the illustrated drainage controls so as to have them installed by that date, unless specifically prohibited from doing so.

Sincerely,



Robert L. Wiley  
Environmental Engineer

RLW:ga  
Encl.

cc: G. Cook, K. B. Hutchinson,  
G. Haus

MINING SUBSIDIARY OF THE



AMERICAN ELECTRIC POWER SYSTEM



SCOTT M. MATHESON  
Governor

TEMPLE A. REYNOLDS  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

K. Hutchinson  
E. Buoy  
G. Haub

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July 23, 1981

Mr. Gordon Cook  
Vice-President & General Manager  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

**RECEIVED**  
JUL 30 1981  
GORDON COOK  
PRICE RIVER COAL CO.

RE: Helicopter Landing and  
Storage Minor  
Modification Approval  
Price River Coal Co.  
ACT/007/004  
Carbon County, Utah

Dear Mr. Cook:

The Division has reviewed the materials submitted for the heliport facility located in Willow Creek Canyon. Certain operation and reclamation regulations have not been adequately addressed. Due to the temporary nature of this project and the amount of disturbance anticipated on this predisturbed site, the Division in concurrence with the Office of Surface Mining, has approved the landing and storage facility for a six-month period with the following stipulations:

817.11 Signs and Markers

Stipulation 7-81-1

Prior to surface disturbance due to heliport activities, perimeter markers will be placed to delineate all areas affected by such activity including all storage areas.

817.42-.56 Hydrologic Balance

Stipulation 7-81-2

Within 30 days of this approval the applicant must show that the temporary sedimentation basins are sized for the 10-year, 24-hour event for the appropriate drainage areas. Provide calculations to show that all water

entering the catch basins will not cause the catch basins to overflow their limits. The applicant must provide for one foot freeboard in design calculations. Any structure built which does not comply with the performance standards is subject to a Notice of Violation.

Specifically, provide calculations to show:

1. Evaporation/infiltration is adequate to handle inflow.
2. The amount of inflow from a 10-year, 24-hour event.
3. The sedimentation pond design with one foot freeboard.
4. Delineation of watershed.

Within 30 days of this approval, the applicant must show that the temporary berms are designed for the 10-year, 24-hour event pursuant to UMC 817.43(a). The size of the watershed drained by the natural runoff diversions must be given and delineated.

Due to the predisturbed yet stabilized nature of the area and the desire to minimize impact from this temporary facility, a variance for the 25-year, 24-hour emergency spillway requirements is hereby granted pursuant to UMC 817.46(i).

Also, due to the predisturbed nature of the area, a variance to the 100 foot buffer zone is granted for the temporary landing and storage project. However, that area between the berm and the stream along the eastern portion of the project area shall be maintained as an undisturbed buffer zone with area ranging from a minimum of 50-100 feet. Appropriate signs shall be placed pursuant to UMC 817.11.

Stipulation 7-81-3

The berms, diversion and sedimentation ponds are not approved nor should they be built until the applicant provides complete runoff data and diversion designs for disturbed and natural drainage.

UMC 817.150-.176 Roads

Stipulation 7-81-4

The applicant may upgrade and use the access road from Highway 33 to the 36-inch culvert near the temporary sediment collection pond as a Class III road. As a Class III road, the applicant must commit to the following:

1. The applicant must show the area is graded near the 36-inch road culvert to direct the runoff from the disturbed area to the temporary sediment pond thereby preventing flow from entering Willow Creek.

Mr. Gordon Cook  
July 23, 1981  
Page 3

2. Within 18 months of this approval, the road will either be upgraded to a Class I or Class II road pursuant to UMC 817.171(g) or restored pursuant to UMC 817.176. The Division may grant an extension to UMC 817.171(g) from 6 months to 18 months depending on the Division's ability to review the submittal.
3. The Applicant will comply with grade, location and alignment performance standards for either the Class I or Class II roads.

UMC 784.11 Operation Plan and 784.13 Reclamation Plan

Stipulation 7-81-5

Within 30 days of approval the applicant will submit a schedule of operation and reclamation events for the Willow Creek permit area. The schedule shall cover the duration of helicopter landing and storage activities.

Within 180 days of approval, the applicant will submit plans for final reclamation and/or future use of the area (i.e., storage and training area) with a schedule for implementation to meet the performance standards of Utah's Mining and Reclamation Program.

UMC 817.89 Disposal of Noncoal Wastes

Stipulation 7-81-6

Within 30 days of application, the applicant will provide a storage, protection and disposal plan for oil and gas products to be used on site during and/or after heliport activities.

Please contact Sally Kefer of my staff if you have any questions on these stipulations or problems meeting the compliance schedule.

Sincerely,

  
JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

cc: Don Crane, OSM

JWS/SK/btm

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

July 27, 1981

Donald A. Crane, Director, Region VI  
Office of Surface Mining  
Brooks Towers  
1020 15th Street  
Denver, Colorado 80202

Dear Mr. Crane:

I have been requested by Sally Keefer, Utah Division of Oil, Gas and Mining, to send you mapping and information describing our proposed activities. We intend to utilize a portion of the previously disturbed mine site (prior to 1977) on Willow Creek for a helicopter landing area, materials storage and pole assembly area in conjunction with the construction of the powerline to our development in Crandall Canyon. We received verbal permission to begin construction of drainage controls on July 23, 1981 from M.S. Keefer. We will begin storage of materials at the site upon completion of the drainage controls.

I have included in the enclosed folder, a description of the site preparation, site maps and hydrologic calculations.

If you need any further clarifications, please contact me.

Sincerely,

PRICE RIVER COAL COMPANY

*R. L. Wiley*

Rob Wiley  
Environmental Engineer

FW/jd

cc: Sally Keefer, DOGM  
Ken Hutchinson  
Gene Haub

SITE DEVELOPMENT FOR A TEMPORARY HELICOPTER  
LANDING AND MATERIALS STORAGE AND ASSEMBLY FACILITY  
TO BE USED IN CONJUNCTION WITH CONSTRUCTION OF THE  
CRANDALL CANYON POWERLINE.

JULY 22, 1981

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THREE (3) SEQUENTIAL MAPS OF  
SITE DEVELOPMENT AT 1"=50' SCALE . . . . .

## INTRODUCTION

Price River Coal Company received limited permission on June 30, 1981 to construct the 46 KV transmission line from Hardscrabble Canyon to Crandall Canyon. At the time of the approval, no one considered the specific needs of the construction contractor, Wasatch Electric, for a helicopter landing and service area nor an on site assembly area other than at Crandall Canyon. Upon the contractor's review of the region in early July, the Willow Creek #6 Mine development area was chosen as most satisfactory due to the reasonable proximity to the construction site and a minimum concentration of existing power lines. Price River Coal Company contacted Jim Smith at DOGM on July 10, 1981, when concurring with the contractors wishes, we realized that Willow Creek was the only reasonable site available to us.

The Willow Creek area is on Price River Coal Company fee land. The Willow Creek site has been disturbed by mining activities since about 1910 when the Utah Fuel #2 Portal was driven on the south side of the creek. Active mining continued by North American Coal Company until about 1974. In 1975-76 Braztah/AEP initiated some re-development activities which finally comprised about 1000 feet of Willow Creek channel relocation, facing up a potential portal location on the east end of the site and covering and leveling of the gob disposal area on the north side of the creek. These developments were to be part of the mining activities for the eastern coal reserve and were designated in our 211 Plan as the #6 Mine. The present status of the site is inactive, although there exists several old structures and a small substation which is occasionally turned on to operate the Castle Gate #2 Mine fan.

The area that will be re-affected for the helicopter pad, etc., is about 3.3 acres on the east end of the leveled area, north of Willow Creek and an access road which crosses Willow Creek, running southwest from the needed site

to state route 33. The segment of the access road from the north side of Willow Creek to route 33 is temporarily across the leased property of Gray-Co Construction Company. The cross-hatched areas on the included maps represents the described area. Duration of intended use is 3 to 4 months, paralleling the construction time for the Crandall powerline.

The intend for this area after completion of the powerline is to maintain and upgrade the drainage controls for continued, infrequent use of the area as storage until such time as the #6 Mine development proceeds.

#### SITE DEVELOPMENT

The site development activities will consist of the installation of drainage controls including installation of minimum two (2) foot berms around affected areas, construction of sediment and drainage retention basins, designed to hold the 10 year 24-hour event without discharge and diversion of overland flow from unaffected areas. Development will proceed as follows:

1. A 2' high earthe- berm will be installed around the area designated on maps #1, #2 and #3 as WC#3. No berm will be needed on the north end of WC#3 since the line here indicates the break point of the gradient. Note the contour lines and elevations on Map #2 of 4. The north end of the cross-hatched area is in a depression. We intend to operate in about 3/4 of this depression and leave the low end free to collect and evaporate any potential runoff. No water is currently impounded in this depression, nor to anyone's memory, has it ever. The berm will be kept at a minimum of four (4) feet from the edge of the leveled area on the side facing Willow Creek.

2. Pond 001 as designated on Map 3 of 4 will be excavated to the design capacity of 7,790 ft<sup>3</sup> for retention of WC#3 drainage.
3. A ditch will be installed on the uphill side of WC#3 to divert unaffected runoff around the site to culvert "A", shown on Map 3 of 4.
4. Approximately 80' of 36" culvert, culvert "A" will be installed, draining the 37 acre watershed designated as WC#1. Earth cover culvert "A" will be built up to isolate WC#3 and assure all drainage flow to Pond 001.
5. The drainage controls for WC#5 will be constructed including:
  - A. Berming both sides of the road;
  - B. Installation of culvert "B", an 18" cwp, draining the 12 acres of WC#2;
  - C. Ditching for diversion of overland flow as shown by arrows;
  - D. Excavation of Pond 003 to a capacity 1.180 ft<sup>3</sup>.See Map #4 of 4.
6. Development of the WC#4 area 13.5 acres, and installation of Pond 002 will be done in a similar manner as indicated for WC#3. This area is not directly needed for the helipad but is being brought into compliance at this time since we will have equipment on site. The existence of the operational substation and various other bits of potentially useful mining paraphernalia leaves Price River Coal Company in a borderline need for compliance situation, which installation of drainage controls should rectify.

The area to be used, though totally previously affected by mining, supports a sparse to heavy stand of herbaceous and shrubby vegetation. We have petitioned to not disturb this vegetation by removal of 6" of the present growth medium, in order to minimize the potential for dust clouds produced by helicopter turbulence.



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

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E. STEELE McINTYRE

September 2, 1981

Robert L. Wiley  
Environmental Engineer  
Price River Coal Company  
Box 629  
Price, Utah 84526

RE: Crandall Canyon Project  
Yarding Area  
ACT/007/004  
Carbon County, Utah

Wiley:

Pursuant to our telephone conversation and your letter dated August 17, 1981 relative to utilization of the lower yarding area at Crandall Canyon for materials laydown, the Division hereby issues approval for said area on the condition that the area be maintained in accordance with the following conditions:

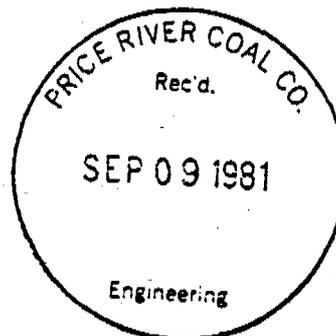
I hope this clarifies any misunderstandings there may have been relative to the issuance of the violation and abatement procedures. If you have any questions, please call.

Sincerely,

JAMES W. SMITH, JR.  
COORDINATOR OF MINED LAND DEVELOPMENT

JWS/te

cc: Don Crane, O.S.M.  
Joe Helfrich  
Tom Tetting



# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

September 14, 1981

Mr. James W. Smith, Jr.  
Coordinator of Mined Land Development  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Crandall Canyon ACR and Approval

Dear Mr. Smith:

Price River Coal has made every effort to respond to and comply with your additional comments and requirements. We have provided you with the best answers available at this time. Several areas of concern will be addressed in the near future, due to either the need for additional time for development and accumulation of data or the finalization of decisions concerning choice of contractors and materials to best perform certain functions. The lack of these data and items should not prevent you from approving Crandall construction plans with stipulations that we not proceed with certain activities or facets until the specific data is reviewed and approved by your office. The items which you requested and are not here provided are as follows:

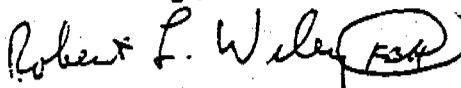
<u>Nature of Item</u>	<u>Source</u>	<u>Probable Availability</u>
Hydrologic Summation	Vaughn Hansen Associates	Mid Sept., 1981
Vegetation Survey	Mariah Associates	Mid Oct., 1981
Road Cut Safety Factor Certifications	Horrocks Engineers	Late Sept., 1981
Final Waste Water Handling Plan and UDH Approval	Horrocks Engineers	Late Sept., 1981
Retaining Wall Characteristics	Contract to be Bid	Mid Oct., 1981

Mr. James W. Smith, Jr.  
Division of Oil, Gas and Mining  
September 14, 1981  
Page 2

Organization of the provided information is based on the sequencing of receipt of your comments and questions. We have listed your comments and followed each with our response. Several comments and responses required the submittal of additional attachments. The symbol, "\*A", indicates that an additional attachment has been included. The attachments are found in plastic holders following the question/response section and numbered to correspond to the rule to which your question applied. The attachments are numbered from 1 to 15 and appear in the same order as the questions. A Table of Contents for the attachments has been provided.

Your most expedient review and approval would be appreciated. We want to proceed with the construction of the Class II road and with upper site preparation before foul weather prevents further activities this year.

Sincerely,

Handwritten signature of Robert L. Wiley in cursive, with a circled initial "RW" at the end.

Robert L. Wiley  
Environmental Engineer

RLW:ga  
Attachments

PRICE RIVER COAL COMPANY  
ITEMIZED RESPONSE TO THE DOGM ACR

RECEIVED ON 7/17/81

FOR THE  
CRANDALL CANYON MODIFICATION

UMC 782.13 Identification of Interests

*(a)(5) Is the specific contact of the Operator to be Gordon Cook's address, P. O. Box 829, Helper, Utah 84526? If so, what is the telephone number at which he may be reached? If not, please provide who is and how they may be reached.*

- The operator is Price River Coal Company.
- Telephone No.: (801) 472-3411
- Gordon Cook is Vice President and General Manager.
- Regulatory Agency personnel making contact with the company shall be through the following individuals:

Robert L. Wiley, Environmental Engineer  
K. B. Hutchinson, Chief Engineer  
Eugene L. Haub, Construction Engineer  
Frank L. Pero, Construction Engineer

UMC 782.13

*(e) The name and address of the surface and coal owners contiguous to the proposed permit area should be listed and a map provided with their interests indicated.*

- The requested information is included in Chapter IV, pages 2 and 3, Table 4-1, and depicted on Exhibit 4-1. Land entities labelled, "U.S.", is Federal land under the management authority of the Bureau of Land Management.

784.14 Reclamation Plan: Protection of Hydrologic Balance

*(c) Currently, the seasonal evaluation of ground and surface water quality from the spring in Crandall Canyon is insufficient. It is not*

784.14 Reclamation Plan: Protection of Hydrologic Balance

*possible to decipher annual variation or trends in either ground or surface water data submitted. The data of 1980 and 1981, submitted by Vaughn Hansen Associates needs to be summarized along with the samples obtained in 1978 to evaluate seasonal variation.*

- Jerry Hansen and Tom Suchoski of Vaughn Hansen Associates have been requested, during the week of July 20, to perform the data summarization. Upon the completion of this summary, it will be submitted to DOGM and referenced as response to UMC 784.14.

784.14

*(c) A surface water monitoring point was to be located above the mine facilities according to the plan (Section 3.74-B). It was to be portrayed on Exhibit 6, but there is no indication of a sample point above the facilities on this exhibit.*

- The reference to Exhibit 6 was only included to indicate that a new sample point was to be installed upstream from the surface facilities. Our monitoring consultants have installed stations located at unspecified points immediately above and below the affected area.

(1)

\*A 784.14

*(c) Well B-43 is stated as a ground water monitoring well in Crandall Canyon. The modification plan states that a summary on the well water quantity and quality is in Exhibit 6-12, yet there is no such exhibit in either this or the Price River Complex Plan. Submit available data on quantity and quality of ground water flow, gradient of flow and direction of flow. From what formation(s) do the spring B-22 and ground water B-43 issue? B-43 is not portrayed on the map of Crandall Canyon. Provide its location.*

- No mention of Well B-43 is made in the Crandall Modification nor is any summary or Exhibit 6-12 mentioned. However, Chapter 7 of the Mine Plan Application, Section 7.1-2(2), page 3, does mention these. B-43 is Test Hole MC-207 located between the shaft sites. The reference to Exhibit 6-12 is an error. 6-12 is the entire packet of Test Hole Logs included at the end of Chapter 6 (Mine Plan). The corrected reference is Exhibit 7-1, 7-2 and 7-3, which are Diamond Drill Logs

784.14 (Cont.)

- MC-205, MC-206 and MC-207. These were somehow deleted from the Mine Plan submission. MC-207 is identified as Exhibit 7 in the Crandall Modification package. The location of MC-207 is shown on Exhibits 4 and 6 of the Crandall Modification. Exhibits 7-1, 7-2 and 7-3 are included for your review. Also, find enclosed a revised version of the Chapter 7 Table of Contents.

(2)

\*A UMC 782.15 Right of Entry and Operation Information

*(a) When were the assignments pertaining to Federal coal leases submitted to the BLM for approval? When were the assignments pertaining to State leases submitted to the Division of State Lands?*

- Although such dates do not appear to be required by this rule, the enclosed correspondence may answer the question. The enclosed letters are related to the transfer of all leases from Franklin Real Estate, the AEP lease and property holding company, to Blackhawk Coal Company, the Price River Coal holding company. The approval letter from State Lands is included. NOTE: Price River Coal is the Operator and the Applicant. The relationship with Blackhawk Coal is better defined in Chapter 2, Section 2.1-3, pages 2 through 8.

UMC 782.17 Permit Term Information

*(a)(2) When the permit application is judged completed for the requested time period (30 years), it will be necessary for the Operator to provide a letter concerning the source of financing written by the proposed source explaining why a 30-year term is needed. If internal funding is involved, confirmation by a financing officer or person approving finances is needed.*

- 782.17(b) requires action under Section 786.25(a).

786.25 (a)(2) requires a statement from the proposed source of financing. Financing for the development of Price River reserves is obtained ultimately through the parent company, American Electric Power. Funding of the Crandall project, for instance, is based on the belief by AEP that 40 million dollars spent today will provide access to 61 million tons of presently unavailable coal reserves at a rate of two million tons per year and reap a substantial capital return. Development

UMC 782.17 Permit Term Information (Cont.)

- of this reserve cannot, with current technology, proceed any faster.

A statement, as requested, is being solicited from the parent company, but may take some time to obtain.

UMC 783.12 General Environmental Resources Information

(a) Exhibit 3-4 corresponds with Exhibit 3-9; however, the isopachs are different and areas of coal extraction do not match. Which is correct? How long will the Crandall Canyon facilities be in operation? Mining progression in this area is only given through 1989 and not for 30 years.

- The only relationship between Exhibits 3-4 and 3-9 is that the C Seam lies about 350 feet above the Sub 3 in the area of Sub 3 depicted in Exhibit 3-9. There is no reason that the isopachs should match.

Mining timing and sequencing is variable and affected by many factors. The 10 years shown is nothing more than the ideal situation for optimum development of the resource. If all factors of coal mining were uniform and predictable, a fixed plan could be provided. They, however, are not.

As stated in the previous response, Crandall Canyon provides access to 61 million tons of recoverable coal at a minimum, using current technology. Recovery rate requires a thirty year development period.

UMC 783.14

(1) Applicant should supply the chemical analysis information of roof and floor as mentioned on page 4, Chapter 6.

- This information is available on pages 5 and 6 of Chapter 6.

\*A<sup>(3)</sup> 783.14

(2) Please provide chemical analysis of Drill Hole MC-207, Exhibit 7B, which was not in the submitted Mine Plan.

- This information is also on page 6 of Chapter 6

783.14 (Cont.)

- and was re-done in February of this year. The new data is provided.

\*A<sup>(4)</sup> 783.14

(3) Applicant should provide the pyrite content of the coal.

- This information is presented from a 1978 analysis.

\*A<sup>(5)</sup> 783.14

(4) Lithologic logs of the monitoring wells should be provided in order to determine the meaning of data gathered, specifically MC-171, MC-186, MC-170 and MC-55. The north slope of the new channel diversion between stations 5+00 and 11+00 is very steep; what is it composed of (i.e., sandstone, shale, alluvial, etc.)?

- The logs are herewith included for your information. The Price River Coal Geologist, Don Stephens, has provided a description of the north slope cut bank rock type.

UMC 783.15 Ground Water Information

(1) A discussion of the impacts on the hydrologic balance is discussed on page 20; however, this discussion centers on only surface water and does not discuss ground water. Chapter VII of the Mining and Reclamation Plan does discuss the general geo-hydrologic information; however, this is in insufficient detail and lacks data to support the claims. The Applicant should present the data from their ground water monitoring program. Sufficient information as to flow rates and permeability should be provided not only to support the general claim that underground mining will not impact the ground water system, but, also, to provide sufficient information to predict the impacts of the shaft construction.

- A summary of ground water and surface water data is forthcoming from Vaughn Hansen Associates.
- The impacts of shaft construction will be minimal. During the construction phase, intersected aquifers will tend to cause collection of water at the bottom of shaft. This water will be pumped to the sediment pond until the concrete can be poured; sealing the interrupted aquifer. Once the shafts

UMC 783.15 Ground Water Information (Cont.)

- are completed, the long term effect will be the minor reduction of the areal extent of the intersected aquifers. This condition will be more or less permanent since the shaft linings will not be removed, but the shafts simply backfilled.

UMC 783.15

(2) Page 4, Chapter 7; states that the Blackhawk formation is of uniform low permeability and, therefore, unfeasible for a source of ground water. This is inconsistent with what was stated earlier that the Blackhawk is a mixture of sandstone, shale, mudstone and clay, of which show differing permeabilities. More substantial evidence is needed in order to claim this formation unfeasible as a source of ground water. Chapter 7 also gives hydraulic conductivity measurements; where and how were these obtained?

- Please note that recorded permeabilities range from  $10^{-5}$  cm/sec. to  $10^{-7}$  cm/sec. These do differ, but both are extremely low rates of moisture movement. Exhibits 7-1, 7-2 and 7-3 show hydraulic conductivity measurements in most strata and rock types. The recorded conductivities do not seem to bear out the claim of differing permeabilities for different types of stone, however, conductivities do generally appear to decline with depth.

Conductivity measurements were obtained using the "Packer" test, which measures water levels before and after subjecting the holes to pressurized nitrogen, forcing water into the rock. Tests were performed at varying intervals as the holes were drilled. No drilling mud, only water was used so as to obtain accurate conductivity readings.

UMC 783.15

(3) Why was ground water monitoring contained to the Blackhawk formation when others will or could be affected?

- Please review Exhibits 6-2A, 6-2B and 6-2C, and Exhibits 7-1, 7-2 and 7-3. Several hundred feet of the Castle Gate Sandstone is included in several monitoring wells.

UMC 783.15

(4) The baseline measurements presented are irregular, which make it difficult to correlate between years.

UMC 783.15 (Cont.)

- Additional data will be provided by the Vaughn Hansen summary.

UMC 783.15

(5) *Baseline sampling of springs should be quarterly instead of bi-annually so that trends and seasonal variations can be established.*

- One more sample per year may be possible, but quarterly sampling is unlikely, due to freezing up of springs and inaccessibility of some wells.

UMC 783.15

(6) *In the baseline quality studies, a full sweep of parameters should be included in the analysis before the list is reduced.*

- The "full sweep of parameters" was originally sampled in 1978, but was reduced to the present parameters after several samples detecting very low or no readings for certain substances. The Vaughn Hansen summary should bear this out.

UMC 783.15

(7) *Apparently, no springs are being monitored directly above the mine workings in the Crandall Canyon area. If any springs do exist in this area, they (or some) should be monitored.*

- No springs exist in this area.

784.13 Reclamation Plan: General Requirements

*The applicant should be more specific concerning the methods which will be used to revegetate the disturbed areas:*

784.13

(A) *What type of mulch and rate of application will be used and how will it be secured?*

- Mulch generally will consist of wheat, oats or barley straw. The rate will vary with the situation, but should average about three tons to the acre. Mulch will be secured with a "Finn" crimper

784.13 (Cont.)

- or a suitable non-toxic tackifier. On steep slopes or critical erosion areas, jute or other vegetative matting may be used.

784.13

(B) *What is the exact schedule of seeding and mulching after the top-soil is applied? The reclamation plan currently states seeding and mulching will be done "as soon as possible" after re-soiling.*

- Seeding and mulching will be done simultaneously during the first appropriate period, when natural moisture can be expected, after re-soiling has been completed.

\*A (6) 784.13

(C) *Justification should be provided for the introduced species proposed in the seed mix. Show how these species are necessary to achieve the postmining land-use (reference can be made to pertinent research, see UMC 817.112).*

- The seed mixture proposed was recommended by the Bureau of Land Management. Please review the enclosed letter from the BLM.

The postmining land-use, as stated on page 34 of the Crandall submission, is unmanaged and undeveloped land with some light grazing activities, but by no means, actively managed for grazing. The goal of reclamation in this situation is primarily soil stabilization. Past experience in use of the included seed mixture for reclamation of drill sites on this property, since 1974, has shown success in ground stabilization and has not precluded re-invasion of the disturbed areas by other surrounding native and naturalized species. No quantitative data yet exists for these drill sites; it will be developed over the next few years.

Note that most areas being disturbed by site development have been previously disturbed and probably farmed, as evidenced by the significant, existing infestation of the area by non-native species, such as Kochia scoparia, Salsola kali, Amaranthus graecizans and Cynoglossum officinale.

The question of introduced and native species is not clearly defined. What is meant by the term, "native?"

784.13 (Cont.)

- Are you referring to habitation within a political entity, such as the U.S.A., the State of Utah, or Carbon County? Is the concept of "native species" fixed for your definition within an era? Are we including only the vegetation existing prior to the advent of the white man as native? The term, "native", must also include some habitat specificity. Desert plants would not be suitable for mountain reclamation. To further complicate matters, races of individual species, adapted to local conditions, do not prosper when transferred to other climatic conditions. Seed from a Rhus triloba collected in the Uintas may not grow in the ephemeral stream beds of Carbon County.

The included "non-native" species have been used throughout the west for  $\pm$  75 years. What is the problem with their continued use? The listed seed mixture has included species which will establish a rapid, soil holding cover and provide higher forage potential for wildlife and cattle than the existing pinyon-juniper-sagebrush associations. There is no reasonable way to collect and re-seed all species existing on the site. The only real way to get somewhat native species is to allow re-seeding from adjacent, undisturbed seed producers.

We could show or list any seed mixture you recommend, but we cannot guarantee that it will succeed.

784.13

(D) *Is the seed mixture shown as Pure Life Seed (PLS)? If not, the PLS seeding rate should be submitted.*

- Yes....., PLS.

784.13

(E) *The vegetation plan should reflect the goal of postmining land-use and the subsequent success criteria on which a partial bond release will be based. Thus, both postmining land-use and success criteria must be well defined in order to develop a revegetation plan. For example, will the proposed vegetation plan provide sufficient diversity or allow natural re-invasion, thus augmenting diversity, such that the standard can be achieved? Particularly, reducing the seeding rate of highly competitive cool season grasses could improve postmining diversity.*

- Do you mean species diversity or life form diversity?

784.13 (Cont.)

- Although a strained relationship might exist between life form diversity and re-invasion, i.e., shrub cover providing higher soil moisture retention, thus more potential for blown-in seed germination, I see no clear relationship between species diversity and re-invasion.

All grass species listed are considered cool season grasses.

784.13

*(F) Data should be submitted supporting the feasibility of successful revegetation using the proposed reclamation procedures. Examples of successful revegetation at the minesite to date, or at nearby mines, can be used. If this information is not available, submit data taken from nearby which supports the above.*

- If you mean mulching and crimping, this procedure has been used widely and successfully throughout the coal region of the Eastern U.S. for many years. The effects of the procedure are - increased moisture retention, pre-germination erosion control, seedling protection, and build-up of surface soil organic matter. The potential nutrient deficiency created by mulch decay is generally offset by incorporating excess nitrogen. Although I know of no such use of this technique in Utah, the positive effects will not be altered.

The collection of reclamation data will take time. Very little such information is available. If DOGM has some references, please make them available to us.

Some additional western reclamation background data will be provided to us by our vegetation consultants, Mariah Associates.

784.13

*(G) Provide an interim revegetation plan as well as the seed mix for stabilization of cut and fill banks, out slopes of dams, etc.*

- Interim revegetation will be performed much in the same way as permanent revegetation. Since interim areas must remain stable for a minimum of thirty years, they will serve as fairly accurate indicators for evaluating success of these techniques. Mulch will be applied with a Finn Blower, which will reach

784.13 (Cont.)

- about 75 feet, or by hand. If areas are too steep or small, a suitable, non-toxic tackifier will be used to hold mulch in place. On extremely critical slopes, jute matting will be used over seeded areas.

The BLM seed mix will be used for interim revegetation. A locally adapted annual grain, such as "Step-toe" Barley, will be used for quick vegetative cover and as a nurse crop for the more permanent species.

Revegetation work on interim areas will begin again this fall for areas already affected and proceed as late into the autumn wet season as practicable on areas newly constructed by access road or upper site development.

UMC 784.20 Subsidence Control Plan

*A subsidence control plan is referenced in Chapter 1.2-1 as being located in Chapter 12. Chapter 12 was not submitted in the MRP's received by the Division. Has this material been relocated? If so, where?*

- An error. See Chapter III, Section 3.1-2.

784.20

*(a) Is this mining of the A Seam to include removal of the material between the split or just the upper portion?*

*(2) It is not clear in which seams longwall mining will be employed. Considering that between 200 and 230 feet of interburden exists between seams, it is assumed that subsidence will occur. Please clarify where longwall techniques and room and pillar methods will be employed so that mitigation procedures may be developed.*

*Exhibit 3-4 indicates the presence of the C Seam in the Crandall Canyon vicinity. No dates or plans for mining were located in the mine plan. Exhibit 3-7 also indicates a seam, Sub 1, that has no mining sequence given either. This is located directly west of the proposed shaft locations. No dates are provided for extraction of coal from the A Seam in Exhibit 3-6. A timed sequence of mining should be provided indicating these areas of overlap and include the Sub 3 and D Seams to enable the Division to assess possible subsidence factors.*

- We were left with the impression that the foregoing questions were either answered during the 7/17/81 meeting or were deleted to be addressed with our main Mine Plan.

784.23(7)

*The applicant must show that the fill materials will meet a 1.5 static safety factor for steepest slopes shown.*

- Rule 784.23(7) is not related to the question, however, the steepest slope is 1V:2h for the toe area of the fill. This is the only portion of the fill that will not be bounded by a retaining wall or a natural slope. A 1:5 static safety factor is required only by Section 817.74(b)(2). We have proceeded to design the deposition of shaft materials in Crandall under Section 817.71. We cannot be held to the requirements of both sections.

(13) &

A\*(14) 784.23(13)(11)/817.101

*The applicant states that the area will be returned to AOC. The applicant should show a plot plan and cross-sections similar to Exhibit 5, 5-A and 5-B showing the postmining configuration.*

- See revised Section 3.75-C and new Exhibits 9, 9A, 9B, 9C and 9D.

784.24 Transportation

*(a) The applicant has specified road width, gradient, road surface and culvert, however, the applicant must furnish the Division with specifications pursuant to 817.162 for road cuts and if these slopes as specified in 817.162 are exceeded, the applicant must show that the cuts or embankments are stable by analyzing the stability and show these structures will meet a 1.5 static safety factor.*

- Information on safety pending.

A\*(15) 784.24(a)/817.163

*Pursuant to 817.163, the applicant must show ditches are lined to handle velocities and quantity. The applicant must show that inlets and outlets to culverts are designed for 10 fps and will not discharge on fills.*

- See hydrologic calculations and typical culvert design included on Attachment (7), Details Sheet.

## Editorial Note

Seams 'Sub 3', 'A' and 'D' are mentioned as mineable in Exhibit III, Chapter III-7 of the PRCC Mine Plan. The title page and Table of Contents lists seams 'C', 'A' and 'Sub 3'. Chapter III-1.4 describes mining from the No. 3 Mine to only include the 'A' and 'D' Seams. Which is correct? Please include all mineable seams for desired life of mine permit, whether 5 or 10 years.

- The title page of some of the Crandall booklets has a typo. The primary seams to be mined are the Sub 3, A and D Seams.

Please re-read Section 3.1-4. The discussion begins in the second paragraph with mining of the Sub 3 Seam and proceeds to reiterate the seams available to the No. 5 Mine. All of these seams will be accessible through the Crandall facility.

Please note in Sections 1.1, Table 6-1, Geologic Cross-Sections 62A, 62B and 62C and all the drill logs at the end of Chapter 6, the various seams of coal owned or leased by PRCC. All mineable seams will be mined.

### CRANDALL HYDROLOGIC BALANCE

#### 817.44 Hydrologic Balance: Stream Channel Diversions

(b)(1) Give retaining wall characteristics for stream diversion, including but not limited to, length, height, width and determine stability. Relate this to soil factors, such as permeability and texture. Although this section of the stream is considered ephemeral, the 10-year storm should be described to determine the diversion capability for handling runoff from such an event. Why is it designed for the 100-year event if it is ephemeral? NOTE: Regulations of ephemeral vs. perennial and intermittent streams (UMC 817.43(b))(817.44(a)).

- The exact type of retaining wall has not been determined, but will be based on the most cost effective type. When the decision is made, design characteristics will be provided to DOGM for review.

The stream is ephemeral. Designs have far exceeded your specifications for our protection. Stability of this site is of far more concern to us than to you.

#### \*A<sup>(7)</sup> 817.45 Hydrologic Balance: Sediment Control Measures

Provide design and capacity of sediment trap along with maintenance

817.45 Hydrologic Balance: Sediment Control Measures (Cont.)

procedures. How large is the disturbed area to be drained by it?

In utilizing a filter berm for treatment of suspended solid materials, describe the following design parameters:

1. Material to be used;
2. Dimensions;
3. Characteristics of flow to be treated; and
4. Berm maintenance.

- We have decided to delete the berm filters or other types of sediment retention structures for areas that will be paved. We do not feel that a serious potential exists for sediment discharge from a paved area. Please review the attachments to this section concerning water flow controls, especially, introduction of paved area runoff to the stream bed and containment of oil and grease.

(8) &

\*A(9) 817.46 Hydrologic Balance: Sedimentation Ponds

(a)(1) Plot the area of disturbance which will be drained into each sedimentation pond. Without such information, DOGM cannot concur with the design factors utilized for each sedimentation pond.

Exhibit 5 portrays drainage entering the diverted stream channel from a work pad area located on the northwest section of the truck access road. Apparently, this drainage is from a disturbed area, but will not be routed through a sedimentation structure. Review and evaluate.

From Exhibit 5, all drainage entering the road ditch from the storage, warehouse and shop area appears to enter the stream channel at the point where the concrete retaining wall continues on the south bank. This drainage must receive treatment before being released to the stream channel.

- Please review the revised Exhibits 4 and 5 submitted as part of this response.

817.46

(i) From where were the maximum intensities derived for the design of spillways? Were hydrographs utilized or simulated? Provide references.

- Please review the information hand delivered to Ms.

817.46 (Cont.)

- Keefer on 7/20/81, and pages 40 through 52 in Chapter 7 of our main Mine Plan submittal, especially Table 7-3 on page 44.

817.46

*(f) Does the applicant hold an NPDES Permit for the two sedimentation ponds? The Department of Health must approve the pond designs and evaluate a request for the discharge permit.*

- On August 15, 1980, PRCC requested additional discharge permits on existing NPDES Permit No. UT-0023086 from Denver EPA Office. We received construction approval for both ponds from the Utah Department of Health in February and March of this year. I believe these approval letters are on file with DOGM.

817.57 Hydrologic Balance: Stream Buffer Zones

*The Department of Health reviewed the Crandall Canyon modification and made response November 18, 1980. The response discussed areas of concern in terms of a leachfield location and the 100-foot stream buffer zone. Data on percolation test results and the ground water level was requested. To date, the Department of Health has received no response and, therefore, cannot recommend approval of both the sediment ponds and sanitary waste water systems. (NOTE: Correspondence from Mr. Steven R. McNeal, DOH, November 18, 1980.) The Division also needs more detail on the location of the leachfield in relation to the stream bed. If the Department of Health concurs with the leachfield design and location, the Division will not request a variance to the stream buffer zone requirement.*

- As previously stated, we already have construction approval from Utah Department of Health for sediment ponds.

We have re-designed the sewage system to be more cost efficient. These designs were discussed with Mr. McNeal and Mr. Roberts of Utah Department of Health by our consultants, Horrocks Engineering, on 8/3/81. Verbal approval was extended to our plan by Utah Department of Health at that time. We are submitting hard designs and will provide all pertinent information to DOGM upon our receipt of written Utah Department of Health approval.

(8) &  
\*A(9) 783.23(9)

*Are there any explosive storage areas? Where are they located?*

- Yes. See new Exhibits 4 and 5.

(8) &  
\*A(9) 783.25

*The applicant shows cross-sections of material to be built up in the Crandall Canyon facility site. Those cross-sections are 4-A, 4-B and 4-C for the preliminary plot plan and 5-A and 5-B for the final plot plan. Where are the cross-sections? The applicant should delineate the extent of waste fill from the shafts on Exhibit 5 in plan view.*

- Note that below each cross-section on Exhibits 4A, 4B, 4C, and 5A and 5B is a number, like 11+00, 5+00, etc. The locations of these numbered cross-sections are shown on Exhibits 4 and 5, both new and old versions, as long lines emanating from the No. 1 Shaft. This line is bisected at 100' intervals by perpendicular lines. These lines have numbers on them like 8+00, 9+00, etc. They match the corresponding numbers on Exhibits 4A, 4B, 4C, 5A and 5B.

*The applicant should state the procedures for disposal of trash, what landfill will be used, etc. Where will oil be stored until disposal and how will it be disposed? Will solvents be disposed in the same manner? Will all oil spills in the shop be captured? Where will the oil storage be located?*

- A contract will be let with a local trash hauling company who will probably haul it to the nearest approved landfill.

Waste oil will be stored in minimum 3,000 gal. capacity tanks and scavenged by contracted, licensed waste oil haulers. Solvents will be mixed with waste oil. All oil spills will be captured. See new Exhibit 5 for location of waste oil storage.

Oil tanks will be installed within concrete berm areas capable of retaining the entire capacity of the tank without discharge.

784.23(10)/784.19(4)

*The applicant has not shown drainage off of the fills after the final configuration as completed. Will all areas be paved? The applicant should show the extent of paving on the plot plans. The fill must be shown to be non-impounding. Are any underground springs or seeps present? Is any of this area subject to subsidence?*

- We have shown drainage around and under the fill on Exhibit 5. All areas, with the exception of topsoil piles and some beds for flowers and trees, will be paved. How else can we show that the fill is "non-impounding", other than with the submitted cross-sections? No springs exist.

This area has not yet been mined under. We would not spend 40 million dollars on a facility critical to the entire development of our west side coal reserves and then mine so as to risk subsidence and destruction of the facility.

(10)

\*A 784.23(11)(13)/817.166

*The applicant must address reclamation of the access road. Will the road be removed?*

- No.

See the more detailed, re-submitted Section 3.75-C, Final Reclamation.

(11)

\*A UMC 817.21 Topsoil: General Requirements

*(a) There is no chemical and physical soil analysis included in the Price River Plan nor the Crandall Canyon modification. Such characterization will aid the Applicant in determining the potential of top- and subsoils for use as reclamation materials. The current proposal is to remove soil to a six-inch depth, but there may, in fact, be suitable materials below.*

- Please refer to Chapter 8 of the Price River Plan, "Soil Resources." Starting on page 5 and continuing through to page 13 are detailed descriptions of soils found in Crandall Canyon. Additionally, you will find included with this response, nutrient availability test results prepared by the State Lab.

Your review of the soils information referenced in our Mine Plan will show that "A" horizon ranges from 3" to 7" thick. No "B" exists. Existing

UMC 817.21 Topsoil: General Requirements (Cont.)

- development proceeds directly to a "C" complex. Texturally, this unit may have some suitability as a re-soiling medium although the nutrient availability is low, as indicated by submitted nutrient Tests 1 and 1Y, which are from a mixture of "A" and "C" horizons. Tests 2-5 are from "A" only. Addition of fertilizer to the "C" material should make it a satisfactory re-soiling or refuse covering medium on other topsoil poor PRCC mine areas. Also, note on page 18 of the Crandall submission, the last paragraph, which indicates an intent to remove more material, if available. Additional soil samples are being collected to provide a more detailed analysis of upper site conditions.

817.22 Topsoil: Removal

*(b) The applicant should evaluate the volume of materials required on site for contemporaneous and interim reclamation as well as that required for final reclamation.*

- The applicant has evaluated volume requirements for soil materials. Approximately 28 acres will be affected by mining activities. This equals 14 acre feet or about 23,000 yds.<sup>3</sup> of "topsoil" that will be removed and stored for all Crandall Canyon reclamation activities. We also have (in the lower site) and intend (in the upper site) to remove up to 18" of underlying materials for reclamation on other PRCC areas. We currently have in storage about 10-12 thousand yds.<sup>3</sup> of re-soiling material.

817.21(b) (?)

*Based on the data obtained (817.21(a)), the applicant should describe which soils will be removed, depth of removal and the volume of materials to be stored. These calculations will allow the applicant to determine the volume of substitute materials that will be required for reclamation. That volume of substrate materials which is not required until final reclamation begins may be hauled in at such time. The approximate chemical and physical analysis must be carried out on substitute materials at that time to justify their use in the reclamation plan.*

- We have indicated in the Crandall Plan (page 18) where soils will and won't be removed. As previously stated, soil tests 1 and 1Y are a mixture of the existing "A" and "C" horizons. With addition of sufficient nutrients, these soils will be adequate.

817.23 Topsoil: Storage

(b) Since soil storage will occur for a minimum of 30 years, the applicant should consider using one location for topsoil stockpiling rather than the three areas slated on Exhibit 6. By utilizing one area, minimal disturbance of soil stockpile is better accomplished, and a comprehensive reclamation effort of the soil stockpile can be made.

- We do not agree with the premise of this statement, nor do we have the area available for one large storage area.

817.23

The mapped location of the soil stockpile on Exhibit 5 is not accurate in terms of its present location.

- See the re-submitted Exhibit 5.

817.23

Discuss soil storage by detailing methods for erosion control, maximum slope of reclaimed stockpile and area covered by storage.

- See page 19 of the Crandall submission.

817.23

(b)(1)(i) The following seed mixture would be recommended over that listed in the mine plan for topsoil stabilization for the following reasons:

1. The species are easily established.
2. They have a high rating for soil stabilization.
3. There is usually poor success when trying to establish shrubs and grasses from seed at the same time.

Recommended Seed Mixture:

<u>Species</u>	<u>lbs./ac. of PLS</u>
<u>Agropyron intermedium</u>	6
<u>Elymus cinereus</u>	6
<u>Hordeum vulgare</u>	10
<u>Medicago sativa</u>	2-3

817.23 (Cont.)

- Please note that 3 of your 4 species are already included in our list. Barley, alfalfa and intermediate wheatgrass are all "non-native" species. We will try a little alfalfa this fall, probably, "Ladec."

817.71 Disposal of Underground Development Waste and Excess Spoil and Non-acid and Non-toxic-forming Coal Processing: General Requirements

(a) *The chemical analysis is not provided as Exhibit 7B in Crandall Canyon Modification, therefore, it is not possible to evaluate use of development waste for pad and fill material.*

- See attachment referenced to your previous comment, 784.14.

817.97, 817.57 Protection of Fish, Wildlife and Related Environmental Values

(d)(1) *Are there important fish or wildlife species that are protected by State or Federal law with relation to haul and access road? What will be done to minimize the impact on them?*

- No.

817.97, 817.57

(4) *Are there unusually high value wildlife habitats within the mine plan area, i.e., dens, strutting grounds, drumming logs, etc.?*

- None are known for the Mine Plan Area. Please review the studies by Dr. Young for the Crandall area, which are on file at your office.

817.97, 817.57

(5) *What will be done to protect or restore the valuable riparian zone? What species will be impacted?*

- The entire proposed facility is in the riparian zone. When the facility is no longer needed, the area will be reclaimed. The access road was

817.97, 817.57 (Cont.)

- pre-existing and when upgraded, will remain permanent. If you will review the proposed road alignment, you will see that the new road follows the course of the old one. All efforts have been made to stay as far from the stream as possible.

No specific studies have been performed other than the raptor work by Dr. Young. Neither UMC 817.97 nor UMC 817.57 require any listing of species. UMC 783.20 requires studies as requested by DOGM. During the September, 1980 consultation with DOGM and DWR, only the raptor work was required. A general discussion of species is included as an attachment to this section. This supplement was provided to us by the UDWR.

817.97, 817.57

(6) *How does Crandall Creek function as a fishery or food supply? What will be the impact downstream (see UMC 817.57)?*

- Except for the lower 5-6 hundred feet, Crandall "Creek" is an ephemeral stream. The flow in this lower section originates from a natural spring in the region of the largest existing topsoil pile. Some organic detritus may be carried into the Price River, which aids in sustaining some of the lower member's food chain. This flow will not be hampered in any new way by development activities.

(12)

\*A 817.97, 817.57

*To meet these performance standards, the applicant needs to indicate commitments to mitigation measures, not merely submit suggestions of what could be done.*

- The "suggestions" have been provided by the Division of Wildlife Resources. Price River Coal has, in the past and will in the future, continue to operate in a fashion which adheres to Division of Wildlife suggestions, since they are the experts in these matters. We will continue to cooperate with local officials in revealing locations of nesting sites or other critical habitats. We will also continue to receive and act upon any advice the DWR can provide us.

817.97, 817.57

*A map of these areas (important habitat for fish and wildlife) needs to be supplied to meet the requirements of UMC 783.19(b).*

- A wildlife habitat map is already included in the PRCC Mine Plan as Exhibit 10-1.

817.153 Roads

*Map the various drainages contributing to the various culverts. What are the flow rate contributions to culverted areas? Show sizing calculations used to derive the 10 fps discharge rate and subsequent culvert sizing.*

- This information was hand delivered to Ms. Keefer on 7/20/81.



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
AREA OFFICE COLORADO-UTAH  
1311 FEDERAL BUILDING  
125 SOUTH STATE STREET  
SALT LAKE CITY, UTAH 84138

~~JLH~~  
OCT 16 1981

IN REPLY REFER TO:

(ES)

October 9, 1981

Cleon B. Feight, Director  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

OCT 15 1981  
DIVISION OF  
OIL, GAS & MINING

Dear Mr. Feight:

This letter is written in response to your request that the Fish and Wildlife Service (FWS) assist in determining hazardous distribution lines on coal mine lands of Utah. This request was made because large numbers of eagles and other raptors have been electrocuted on distribution lines throughout Utah. Moreover, various state and federal regulations require mining companies to design powerlines safe for raptor use.

During the week of August 24-28, 1981, Ron Joseph of my staff met with representatives from eight of nine mining companies near Price, Utah, to conduct a field examination of distribution lines traversing coal tract areas. A comprehensive examination of all mine site powerlines will be completed by February 1982 and you will be notified by letter after FWS completes its examination. Consequently, this letter pertains only to the nine companies addressed below.

In general, hazardous powerline configurations were observed in valleys rather than in canyons where most mining activity is located. Many of the lines maintained by coal companies do not meet raptor electrocution preventive standards. However, they do not pose a threat to eagles and other raptors because, with few exceptions, the lines are not being used by raptors. While inspecting powerlines with company personnel, segments of potentially hazardous distribution lines were walked to determine the extent of raptor use. No sign of raptor excrement or prey remains were noted on the crossarm or at the base of the pole of any coal company powerlines.

Several factors account for the relative low incidence of raptor use of mine site powerlines. Distribution lines in canyons with mining activity receive little raptor use because birds prefer to perch on the dominant, most prevalent perch site. These consist mainly of rocky outcroppings and trees near the rim of a canyon. The majority of raptors in canyon habitat use thermals and updrafts which provide them with an energy efficient means of "riding" air currents over ridges and high meadows during foraging activities. In addition, most powerlines parallel mining roads which are generally located at the bottom of the canyon.

Hence, they are not the most elevated perch site and their close association with vehicle disturbance and mining activities renders them of little value to raptors. Furthermore, live and dead coniferous trees are usually quite numerous in the canyons near Price and raptors prefer to perch on natural structures rather than powerpole crossarms. Some of the higher elevation mine electrical lines are located between 8,000 and 8,500 feet. These do not pose a serious threat to raptors during the winter because heavy snowfall at these elevations reduces raptor activity as prey becomes scarce.

Utah Power and Light (UP&L) rather than coal companies are responsible for the safety maintenance of line configurations on Bureau of Land Management (BLM) administered lands near Price. My raptor biologist suspects that the majority of lines which are electrocuting eagles in Central Utah are located in the relatively flat sagebrush valleys. These lines are operated and maintained by UP&L and are not within the permit boundaries of the mines examined. For example, Kaiser Steel obtains its energy from a UP&L line in Clark Valley. The 46 kV line in this valley poses an electrocution threat to raptors because the habitat is considerably different from the canyon topography and raptors are more inclined to use the line as a perch. This is due to a lack of natural elevated perch sites. Raptor electrocutions are compounded along this line as migrant eagle populations increase during the winter months. FWS will examine the powerline this winter and if eagle carcasses are collected we will meet with UP&L to insure that the configuration is modified. We do not expect a problem with Kaiser Steel but we will also inspect their lines since it is in close proximity to the Clark Valley line.

All existing lines were examined for the following companies:

- ✓ 1. Beaver Creek Coal Company lines for Gordon Creek Number 2, 3 and Huntington Canyon Number 4. FWS does not recommend altering the design of any lines.
- ✓ 2. Kaiser Steel obtains its energy from a UP&L line in Clark Valley. FWS does not recommend modifying the Kaiser line; however, it will be examined this winter since a 46 kV line in Clark Valley is a threat to eagles.
- ✓ 3. Soldier Creek Mining Company line was examined and FWS does not recommend configuration modification.
- ✓ 4. The U.S. Steel Company mines were examined and FWS found no evidence to recommend modifying its powerlines.

- ✓ 5. The Plateau Mining Company lines were examined for the Star Point mine. Its lines do not pose a threat to raptors. However, a 13.2 kV line maintained by UP&L supplying power to the Star Point Mine will be examined this winter since it crosses sagebrush habitat.
- ✓ 6. Blazon Company Number 1 mine also appears safe for raptors. The mine is located above 8,000 feet and would receive little raptor use.
- ✓ 7. Valley Camp mine is above 8,000 feet and we suspect that it also poses no problem since very few raptors winter at this elevation.
- ✓ 8. U.S. Fuel lines at Hiawatha were examined on foot and by automobile. Due to their locations at the bottom of the canyon and close proximity to roads and mine sites, they are rarely used by raptors. FWS does not recommend any modification of their lines.
- ✓ 9. All existing lines of Price River Coal Company mines were examined. These include the lines at mine Numbers 3, 5, and 6. We do not recommend modifying any of these lines.

In closing, FWS does not expect a raptor electrocution problem on any of the-forementioned coal company lines. Consequently, we do not recommend modifying any lines at this time. However, FWS will spot check these lines in February to determine the extent of use by wintering raptors. Specific poles could be modified if an isolated case of an eagle electrocution occurs on any company lines. Increased measures could be taken to correct any unexpected "hot spots" should they develop.

Powerline maps for each company are located at our Salt Lake City office. Ron Joseph would be available to meet with members of your staff if you would like line locations transmitted to your maps.

Sincerely yours,

  
Acting Area Manager

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

October 27, 1981

CERTIFIED MAIL - Return Receipt Requested

Mr. Steven R. McNeal  
Public Health Engineer  
Division of Waste Water  
Utah Department of Health  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: Storm Drain System for Finished Crandall Canyon Facility  
and Proposed Pond for Upper Topsoil Pile

Dear Steven:

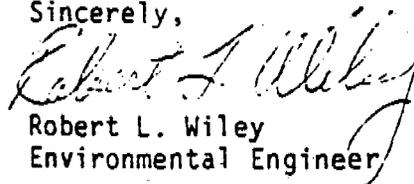
Per your request, we are enclosing for your review, some drainage control design details, including our proposed oil separator. I have also included a map of our final site configuration showing the new pond we will build for the topsoil pile and approximate locations of storm drain discharge points and design calculations for proposed Pond 016.

Pond 016 is to be of small berm-like structure for collecting any potential sedimentation from the adjacent topsoil pile. The maximum area drained to proposed Pond 016 will be 1.05 acres. The pond will have a capacity of 3,763 ft.<sup>3</sup> at the discharge pipe flow line. The capacity is based on a combination of sediment storage capacity and retention without discharge of the 10 year/24 hour theoretical event. Discharge of any event up to the 25 year/24 hour event will be through an 18" diameter CMP. Since we do not anticipate any oil generation from the topsoil pile, we see no need for an oil skimmer. The top width of the berm will be a minimum of 8'.

Other drainage from the finished site will be storm runoff from paved areas. We do not expect that effluent limitation of our NPDES Permit will be exceeded by such a system. To assure that the oil and grease limitation is met, an oil separator will be installed to collect drainage around and from our maintenance shop; the only source of potential oil generation. I hope that you can make the necessary changes of points 014 and 015 from ponds to storm discharge.

Please contact me if you have any further informational needs in these matters.

Sincerely,

  
Robert L. Wiley  
Environmental Engineer

RLW:ga  
Enclosure (Map, Drainage Details, Design Calculations)  
cc: Sally Keefer, DOGM (w/o enclosure)

Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

**DIVISIONS**

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

**OFFICES**

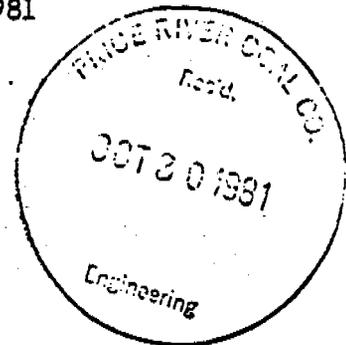
Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

October 29, 1981  
533-6146



Mr. K. B. Hutchinson  
Chief Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Ut 84526

Re: Construction Permit  
Wastewater Disposal System for  
Crandall Canyon Mine Project  
Castle Gate, Utah

Dear Mr. Hutchinson:

We have completed the review of the plans and specifications prepared by your consulting engineers, Horrocks & Carrollo Engineers, for the subject project received on October 21, 1981.

The plans and specifications are basically in compliance with the Code of Wastewater Disposal Regulations and other applicable requirements. Therefore, a construction permit is hereby issued as constituted by this letter subject to the following condition:

The wastewater disposal system shall not be used until the Utah Safe Drinking Water Committee has approved the water system plans for construction or modifications of the drinking water facilities.

The scope of the project includes construction of a 16,800 gallon septic tank, a 100-gpm pumping station for discharge of septic tank effluent to the drainfield, ten access boxes and 7,700 lineal feet of 3 feet wide absorption trenches. The basis of design is as shown in Exhibit "A".

A set of plans is returned herewith bearing our construction permit stamp. These plans must be kept available for examination during inspections to be conducted by the Southeastern Utah Health District or this office and for resolution of any conflict or discrepancy in construction that may arise during the course of the project.

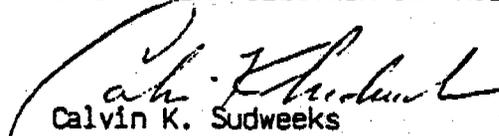
Page 2  
Mr. K. B. Hutchinson

You are required to notify this office and the Southeastern Utah Health District for an onsite inspection after construction, and prior to backfilling and placing the system into service.

If we can be of further assistance in this matter, please do not hesitate to contact us.

Sincerely,

UTAH WATER POLLUTION CONTROL COMMITTEE

  
Calvin K. Sudweeks  
Executive Secretary

KLB:gb

Enclosures

cc: Mr. Gerald C. Story, R.S., Southeastern Utah Health District  
w/enclosures  
Mr. Larry F. Bowen, Horrocks & Carrollo Engineers  
Mr. Tim Pine, Bureau of Public Water Supplies

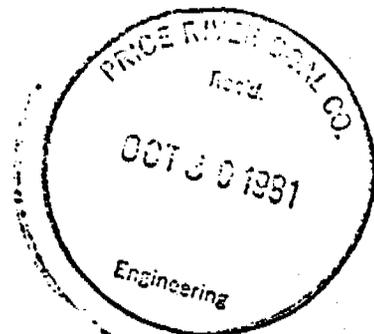


Exhibit "A"

Basis of Design

Population - Number of workers per day	600
Wastewater Production, gallons per day	
Per worker	35
Total	21,000
Septic tank volume, gallons	16,875
Average percolation rate, minutes per inch	29
Absorption rate used in design, gpd/ft <sup>2</sup>	0.93
Area required for absorption, ft <sup>2</sup>	22,600
• Septic tank effluent pumping station	
Number of pumps (8 stage deep well turbine type)	2
Capacity, gallons per minute	100
Force main diameter, inches	4
Static lift, ft.	508
Total dynamic head, ft (C=100)	590





United States  
Department of  
Agriculture

Soil  
Conservation  
Service

350 N. 400 E.  
Price, UT 84501

November 4, 1981

Robert Wiley  
Price River Coal Co.  
P.O. Box 629  
Helper, UT 84526

Dear Bob,

This letter confirms the findings of George Cook when he visited your Price Canyon operation on September 29, 1981. The rangeland productivity estimates by reference area are listed below:

- Site #1 (above Castle Gate air vent) - Sagebrush-grass bottom community  
850-900 lbs/acre air dry
- Site #2 (water tank and sign) - Sagebrush-browse-grass community  
650-700 lbs/acre air dry
- Site #3 - Riparian community  
2500-3000 lbs/acre
- Site #4 (upper Crandall Canyon) - Woodland community  
understory 200-300 lbs/acre  
low production on conifers (ponderosa pine, whitefir,  
Douglas fir, western red juniper)
- Site #5 (lower Crandall Canyon) - Riparian community  
2500-3000 lbs/acre air dry
- Site #6 (south aspect Sowbelly Canyon) - Salina Wildrye- black  
sagebrush community  
900 lbs/acre
- Site #7 (north aspect Sowbelly Canyon) - Gambel oak and grass community  
1200-1300 lbs/acre

If we can be of further assistance please contact us in Price.

Sincerely,

Gary D. Moreau  
District Conservationist  
Price/Castle Dale Field Office

GM/lb

SCOTT M. MATHESON  
Governor

TEMPLE A. REYNOLDS  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

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November 12, 1981

Mr. Rob Wiley  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

RE: Crandall Canyon  
Modification  
ACT/007/004  
Carbon County, Utah

Dear Rob:

The Division received verbal concurrence from the OSM on Monday, November 9, 1981, regarding State approval of the road construction associated with access to the on-going shaft construction in Crandall Canyon. This communication came from Shirley Lindsay and was transmitted to Lee Spencer of the Division. Written confirmation is expected shortly.

Please find the enclosed draft copy of the Determination of Completeness Review (DOC) completed by our staff. Concurrence from the OSM has not yet been obtained, but a consolidated DOC should be completed by the second week of December 1981. Should you wish to prepare information beforehand, please be advised that the comments may be revised. If I may assist you further in your operations, please call on me.

Sincerely,

THOMAS N. TETTING  
ENGINEERING GEOLOGIST

Enclosures

cc: Shirley Lindsay, OSM

TNT/btm



# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

December 1, 1981

CERTIFIED MAIL - Return Receipt Requested

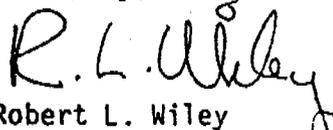
Ms. Shirley Lindsay  
U. S. Department of the Interior  
Office of Surface Mining  
Brooks Towers  
1020 - 15th Street  
Denver, Colorado 80202

Dear Ms. Lindsay:

Enclosed is a copy of the completed and, hopefully, finalized information on waste water handling for our Crandall Canyon modification. We have given the Division of Oil, Gas, and Mining, Utah, a copy for their review.

Please contact me directly if you require any additional information.

Sincerely,

  
Robert L. Wiley  
Environmental Engineer

RLW:ga  
Enclosure

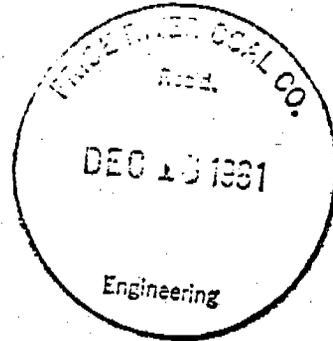


STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

December 11, 1981



Mr. Robert Wiley  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

RE: Administrative Delay for Permanent  
Program Coal Mine Plan Review  
Price River Complex  
ACT/007/004  
Carbon County, Utah

Dear Mr. Wiley:

This is to inform you that the Division of Oil, Gas and Mining is invoking administrative delay in the review of your mining and reclamation plan submitted under the requirements of the permanent program rules and regulations.

Section UMC 771.13(b) of the State's regulations allow existing underground coal mining activities to continue operations beyond the eight (8) month deadline for Division approval, under their interim State permit, pursuant to Section 502 of the Federal Act (P.L. 95-87) if:

1. Timely and complete application for a permit under the permanent regulatory program has been made to the Division in accordance with the provisions of the Act and the rules and regulations;
2. The Division has not yet rendered an initial decision with respect to the application; and
3. The activities are conducted in compliance with all terms and conditions of the interim permit, the requirements of the Act and State statutes and regulations.

The Division is proceeding with review of all permanent program mining and reclamation plan permit applications as expeditiously as possible. We are increasing our technical staff to accommodate the expanded workload and ask that you please bear with us during this period.

Mr. Robert Wiley  
December 11, 1981  
Page Two

In order to further expedite the review process and issue permanent program approvals, we are requesting that any modifications of the mining and reclamation plan to continue or expand present activities be submitted at least three (3) months prior to anticipated need, whenever possible. The Division staff, to-date, has been exercising a considerable amount of time and energy reviewing modifications rather than permanent permit applications.

Your patience and cooperation are greatly appreciated. Should you have any questions or needs, please don't hesitate to call.

Sincerely,



JAMES W. SMITH, JR.  
COORDINATOR OF MINED LAND DEVELOPMENT

JWS/te

cc: Richard E. Dawes, OSM

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

January 11, 1982

CERTIFIED MAIL - Return Receipt Requested

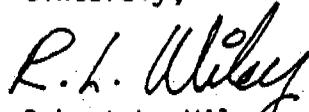
Ms. Sally Keefer, Hydrologist  
Utah State Department of Natural Resources  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Dear Ms. Keefer:

I am forwarding to you some final comments from Vaughn Hansen Associates concerning data on surface water monitoring points, Numbers B-25 and B-26. I hope this provides the information you need.

If you have any further problems, please call me.

Sincerely,



Robert L. Wiley  
Environmental Engineer

RLW:ga  
Enclosure

Response to Division of Oil, Gas, and Mining

Apparent Completeness Comments

Crandall Canyon

DOGM Comments:

The Vaughn Hansen Summary depicted two surface samples (spring and summer) attempted in Crandall Creek both of which occurred at 0 discharge. Since winter and fall samples were not attempted, the seasonal trend evaluation for Crandall Creek is not complete. Ground water monitoring of the spring in Crandall Canyon (B-22) and the observation well (B-43) appear adequate in evaluating the ground water system (Vaughn Hansen Summary). The applicant should further evaluate the cause for poor water quality in Well B-43 to justify that it is not due to Price River Coal Company's disturbance in Crandall Canyon.

Response:

Surface Water

Surface water monitoring in Crandall Canyon was incorrectly reported in the Vaughn Hansen Associates (VHA) Summary. Monitoring at Station B-25 and B-26 in Crandall Canyon did not commence until the spring of 1981. Thereafter, bimonthly measurements have been taken. No flow has been encountered to date.

Crandall Canyon is an ephemeral drainage flowing only in direct response to precipitation or as a result of snowmelt runoff during the spring melt period. Bimonthly baseline monitoring will be continued until sufficient data has been collected to evaluate the seasonal variation of surface water quality and quantity in Crandall Canyon.

### Groundwater

The occurrence of poorer quality groundwater in monitoring well B-43 (MC-207) is felt to be a natural occurrence. Water quality in the Blackhawk Formation is highly variable due to the interbedded nature of the formation. Water monitoring in the area shows a general trend of poorer water quality with depth. Water intercepted by the well comes from various zones within the Blackhawk Formation. These zones, due to their chemical composition may contribute waters that vary greatly as to quality.

A gas producing zone from 600 feet to 1150 feet below the ground surface was encountered by the well. The zone produces methane gas and when first encountered had pressures of 70-90 psi above hydrostatic pressure. Upon completion, the gas was able to blow water out the top of the casing. The gas pressure is no longer that high but is still escaping from the hole. This escaping gas causes agitation of the water column and allows for mixing of the waters intercepted by the well.

Operations by Price River Coal Company in Crandall Canyon have had little effect on the ground quality. Monitoring of the well started in June of 1980 before any disturbance to the area had occurred. Little significant change in the water quality in the well has been encountered over the past two years.

**PRICE RIVER COAL COMPANY**

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

January 13, 1982

CERTIFIED MAIL - Return Receipt Requested

Ms. Sally Keefer, Reclamation Hydrologist  
Mr. James W. Smith, Jr., Coordinator of Mined Land Development  
Mr. Tom Tetting, Engineering Geologist  
Utah State Department of Natural Resources  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

RE: Temporary Approval of Willow Creek Area as Helipad and  
Compliance with the Stipulations of your 7/23/81 Approval

Dear Reclamation Staff:

Thank you again for your rapid action last summer which allowed our timely use of this area as a helipad during construction of our powerline from Hardscrabble to Crandall Canyon. Construction of the powerline was completed in late October, 1981, and all of the contractor's equipment removed by early November. We are continuing to use this area, as we have in the past, for storage and mine rescue training. I am also cleaning up the area near the old substation for future use as a central location for my reclamation equipment and materials.

Your approval letter on 7/23/81, required that within 6 months, Price River Coal Company provide you with reclamation or use plans for the Willow Creek area. I will attempt here to provide the information that you require.

As I have stated, we intend to continue to use this area for storage, mine training, etc. The area will be exactly the same as that identified and within the controlled drainage area depicted on maps submitted to you in July of 1981. This usage will continue until such time as we are prepared to construct the No. 6A facility (1-3 years). We have indicated the use of this area as the No. 6A Mine in our 211 Plan and in our pending mine plan application (see Chapter III, Section 3.6).

The Willow Creek area is currently bonded for reclamation as per agreement with DOGM in April of 1977. The bond rate will probably increase after the review of our present application to more closely approximate the new reclamation requirements. The method, time, seed mix, etc., will not be dissimilar to those being reviewed for Crandall Canyon and the remainder of the Price River Coal complex.

The stipulation has been made that we demonstrate compliance with the performance standards. The particular standards, with which I perceive, that you are concerned are probably those applying to signs, markers and drainage controls.

Ms. Sally Keefer  
Mrs. James W. Smith, Mr.  
Mr. Tom Tetting  
Division of Oil, Gas, and Mining  
January 13, 1982  
Page Two

Signs and Markers:

The following signs are in place and of a reasonably permanent nature:

Wooden Lathe Perimeter Markers  
Stream Buffer Zone Markers  
Mine ID Signs

Drainage Controls:

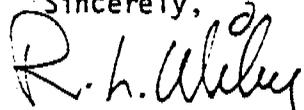
All drainage controls installed in July of 1981 remain in place and are in good working order. All culverts, berms and ponds have been designed to 10 year, 24 hour event standards (see hydrologic computations submitted in July, 1981). I have included a recent photo (12/16/81) of the Willow Creek area for your reference.

The additional work needed for a more permanent type of compliance with the drainage control standards will be to install discharge pipes in the existing ponds. Before we can do this, we must obtain three additional discharge point numbers on an existing NPDES Permit from EPA (requested 1/12/81) and pass some design information through the water pollution people at UDH. Pipe sizing calculations for the 25 year event will be provided to you within 30 days. We will install the pipes after we receive UDH construction approval and as soon as possible after spring thaw (early April?, 1982).

We will maintain all drainage control facilities as for our other surface facilities (constantly!) and will expect your inspectors to look this area over routinely.

I hope the foregoing information is sufficient for the time being. Please contact me if you have any additional needs.

Sincerely,



Robert L. Wiley  
Environmental Engineer

RLW:ga

Encl. - 1 8x10 Aerial Photo of Willow Creek Area to Ms. Keefer

cc: K. B. Hutchinson  
E. Buoy  
E. Haub

Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

*Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards*

OFFICES

*Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory*

STATE OF UTAH  
DEPARTMENT OF HEALTH

DIVISION OF ENVIRONMENTAL HEALTH  
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

January 22, 1982  
533-4207

Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

Gentlemen:

Re: Price River Coal Company, Crandall  
Canyon Shaft Construction Camp  
Temporary Water Supply Facilities

On January 14, 1982, Horrocks Engineers submitted plans and supporting documentation for temporary water supply facilities to serve the construction camp while the Crandal Mine shaft entrance is being developed. It is our understanding that these facilities are presently in existence and are being used to supply water for the shaft drilling process while the culinary water is being hauled from the Helper area.

Therefore, these facilities are hereby approved for use as a temporary water supply subject to the following conditions:

1. The use of these facilities is only authorized until January 1, 1983, based on an approved application for a temporary change of point of diversion.
2. A Ford Chemical Laboratory analysis No. 81-008538 indicates concentrations of 1290 mg/l for total dissolved solids and 560 mg/l for sulfates were detected in the proposed drinking water source. These values exceed the allowable maximum contaminant levels [MCL] for community type public drinking water facilities unless otherwise authorized by Safe Drinking Water Committee action [see enclosed Section 3.0 of the regulations]. Although these MCL's do not apply to a noncommunity water supply such as this, this fact should be considered should you desire in the future to develop it as a permanent source for a full time facility. Also an analysis for the parameter of mercury does not appear to have been performed. Although this is also a community MCL, you should have an analysis made.

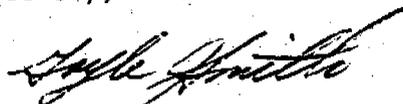
January 22, 1982

3. The relatively permeable ground strata overlying the water bearing aquifer dictates the source be defined as a shallow ground water supply. This in turn requires that no concentrated source of contamination such as a septic tank drain-field be developed within 1,500 feet of the well as long as it is used for drinking water purposes.
4. Even though this is only to be a temporary water system, routine bacteriological monitoring and reporting is still required. Because of the marginal nature of these facilities we would recommend a minimum of two water samples per month be submitted for analysis.

Please note that our evaluation was only performed to determine the possibility of any significant short term health hazards from the use of these facilities. If consideration is being given for the permanent use of the existing system you should be advised that there are deficiencies in terms of system reliability and the potential for a health hazard which would need to be corrected before permanent use could be approved.

In conjunction with this approval, we shall be contacting you to schedule an on-site inspection of the system. Should you have any questions concerning this correspondence, please contact this office.

Sincerely,



Gayle J. Smith, P. E., Director  
Bureau of Public Water Supplies

LJM:br

Enclosure

cc: Southeastern District Health Department  
Horrocks and Associates  
Division of Water Rights  
Division of Oil, Gas and Mining

Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

OFFICES

Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Avin E. Rickers, Director  
Room 426 801-533-6121

January 25, 1982

533-6146

Robert Wiley  
Environmental Engineer  
Price River Coal Co.  
P.O. Box 629  
Price, Utah 84526

RE: Crandall Canyon  
Sediment pond, oil separator

Dear Mr. Wiley:

We have reviewed the plans and information for the Price River Coal Crandall Canyon top soil sediment pond, warehouse oil separator, and upper shaft dewatering. Plans and information dated October 27, December 15, 1981 and January 12, 1982 were reviewed.

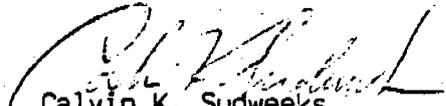
As a result of our review, the plans for the Price River Coal Crandall Canyon top soil sediment pond, warehouse oil separator and upper shaft dewatering are approved provided the sediment pond outlet has a baffle to prevent the discharge of floating debris. This letter constitutes our construction permit for the sediment pond and oil separation.

The top soil sediment pond is to provide approximately 400 cubic feet of settling for the surface run off from a ten year twenty-four hour rainfall. The oil separator is designed for 30 gpm and has baffles to prevent short circuiting. The upper shaft water is isolated from the construction activities and is to be approximately 70 gpm of water with less than 25 mg/l TSS.

Should the effluents not meet State or Federal standards, the company must provide the necessary additional treatment. Unless already submitted, appropriate area maps and information identifying the discharge locations should be submitted to EPA.

Sincerely,

UTAH WATER POLLUTION COMMITTEE

  
Calvin K. Sudweeks  
Executive Secretary

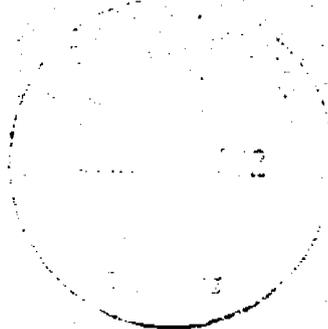
SRM:ddr

cc: Oil, Gas and Mining

Southeast 208

Southeastern District and Health Department

Clay Childs



# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

January 26, 1982

CERTIFIED MAIL NO. 3968362  
Return Receipt Requested

Mr. Bill Johnson  
U. S. Department of the Interior  
Office of Surface Mining  
Interior South Building  
Room 254  
Washington, D.C. 20240

RE: Archaeological/Historical Studies on Price River  
Coal Company's Crandall Canyon Shaft Project

Dear Mr. Johnson:

Please find attached, the copies of all correspondence or other records available to us pertaining to the archaeological/historical studies performed on our property in Crandall Canyon. I have also tried to provide a brief description of the situation, a chronology and some comments and questions, without editorializing anymore than necessary.

## BACKGROUND INFORMATION:

Price River Coal Company (PRCC) (formerly Braztah) had begun to consider the necessity of the Crandall Canyon shaft project to provide improved ventilation and access to our No. 3 Mine as far back as 1976. The project, in brief outline, was described in our 1977 211 Plan.

PRCC officials were aware, early on, that an archaeological clearance would have to be obtained for the portion of BLM land to be crossed by our intended power line. We had learned, during our drilling program, that archaeological clearances were needed on public land. We had no inkling that our own land required any clearances. With the exception of about 100' linear section of the access road and 1/2 mile of the power line corridor, the land involved belongs to PRCC.

On May 29, 1980, PRCC embarked on a year long debacle to obtain archaeological clearance.

## CHRONOLOGY OF EVENTS:

### Date:

5/29/80 Meeting with regulatory agencies and utilities. Division of Oil, Gas, and Mining (DOGGM) personnel require that an archaeological study be performed for the power line, road and shaft site.

Mr. Bill Johnson  
Office of Surface Mining  
Washington, D.C.  
January 26, 1982  
Page Two

CHRONOLOGY OF EVENTS (CONT.):

Date:

- 6/13/80 PRCC contacts the Utah Division of State History (DSH) and requests an archaeological study of the area.
- 6/30/80 Kay Sargeant, Asst. State Archaeologist, surveys area; notes no prehistoric sites, describes three crude rock structures, recommends clearance with allowance for other State officials to photograph and study (Phil Notariani).
- 7/9/80 Survey of site by P. Notariani, State Preservation Historian (or Archaeologist); intimates importance of sites as classic example of past sheep raising industry; plugs colleague, Bruce Hawkings, for more study.
- 7/9/80 Letter from L. Lindsay, DSH, to Craig Benson, BLM, for archaeological clearance.
- 9/19/80 Call to DSH by PRCC's Ken Hutchinson, about final clearance to PRCC.
- 9/26/80 Call to DSH by PRCC's Ken Hutchinson, about final clearance to PRCC.
- 9/30/80 Letter to PRCC from DSH's L. Lindsay; he says that we have archaeological clearance, but if possible, State would like to investigate the rock structures at no further cost to us.
- 10/15/80 Teletyped letter to D. Crane, J. Hardaway, J. Nadolski, OSM, giving estimate of costs to reclaim the Crandall Canyon area upon cessation of activities.
- 10/16/80 Called J. Nadolski regarding same.
- 10/17/80 Sent letter to J. Nadolski regarding same. Called W. Killam.
- 10/22/80 Letter from L. Lindsay, DSH, to B. Killam, OSM, revising earlier report; changes his tune, saying that PRCC should be subject to additional research.
- 10/29/80 Letter to D. Crane, OSM, sending map of Crandall Canyon area, stating the only work PRCC could start in 1980.
- 11/4/80 Letter from K. Hutchinson to W. Killiam, OSM, agreeing to terms discussed over telephone for temporary protection of sites.

Mr. Bill Johnson  
Office of Surface Mining  
Washington, D.C.  
January 26, 1982  
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CHRONOLOGY OF EVENTS (CONT.):

- 11/7/80      Called W. Killam, OSM. Letter should be sent out to DSH on Monday. Crane will probably issue permits.
- 11/7/80      Called DHS to get someone down to stake out fence.
- 11/13/80     Letter from J. Smith, DOGM, says DSH requires (?) that PRCC stay 100' from a site; more may be required later.
- 12/23/80     Letter from OSM's Don Crane to PRCC; requires fencing off of sites by a "qualified archaeologist"; also requires a new study to be performed at expense of PRCC.
- 1/5/81        New study by Utah Archaeological Research Corporation (UARC) completed and submitted to DSH, OSM; recommends clearance, places use of area between 1920 and 1970 with highest use during the 30s and 40s. (Total report not included, but can be provided if it is needed.)
- 1/19/81      K. Hutchinson of PRCC called J. Nadolski, OSM; never saw report.
- 1/26/81      R. L. Wiley, PRCC, call W. Killam, OSM, about review of UARC Report; says he has not read it, but has given it to Foster Kirby.
- 2/2/81        Letter from DSH's M. T. Smith concurring entirely with conclusions of UARC Report.
- 2/23/81      K. Hutchinson called W. Killam, OSM; has not read report, but has given it to Foster Kirby.
- 2/26/81      R. Wiley, PRCC, called J. Nadolski, OSM, about UARC Report; says he doesn't know anything.
- 3/17/81      R. Wiley, PRCC, called Judy Schrader, OSM, who has no idea of the situation or its relative importance, but called back to say letter is forthcoming.
- 3/20/81      OSM sends letter of concurrence with UARC findings to DOGM.
- 4/30/81      DOGM sends cryptic letter to PRCC giving final clearance.
- 5/18/81      DOGM sends letter clarifying destruction clearance.

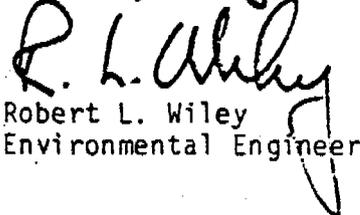
Mr. Bill Johnson  
Office of Surface Mining  
Washington, D.C. 20240  
January 26, 1982  
Page Four

With perserverence, we did finally receive clearance to remove these rock houses and associated junk piles. Looking in retrospect, several questions arise. During this ordeal, it was never clear why we were detained for the extended time period involved, in light of both the initial and final survey results and what legal requirements existed for the disposition of truly significant structures on private property. If the private landowner were other than a coal company, would there not be some financial recompense for the cost of the study and in the event of an important, preservable find, some compensation for loss of property, egress, etc.....?

Another point which causes concern is the apparent requirement by OSM for LaMar Lindsay to subtly change his report to imply significance to these sites for which he had previously granted removal. Additionally, we do not understand how State History's request for photography and further study by them ("at no cost to us") got to be a requirement that we fence, stay 100' away, and buy a new study in order to utilize our own property! It is also noteworthy that the State, having mentioned preservation of these "important" structures (P. Notarianni), would so readily re-reverse themselves and concur with our newly paid-for study that was of such poor form (2/2/81 DSH letter).

We feel that we have been sorely abused, to no betterment of society at large, by a regulatory cadre who have placed the coal industry in the role of the "enemy of the people". We can only hope that your attempts to develop some guidelines which both prevents the reoccurrence of PRCC's kind of experience and truly protects those structures and artifacts that are significant parts of our rich history, is met with success. Please contact me if any further information is required.

Sincerely,

  
Robert L. Wiley  
Environmental Engineer

RLW:ga  
Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

1860 LINCOLN STREET  
DENVER, COLORADO 80295

FEB 2 1982

Ref: 8WM-C

Mr. Robert L. Wiley  
Environmental Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

Re: Renewal of Permit to Discharge  
NPDES No. (s) UT-0023272 and  
UT-0023086

Dear Mr. Wiley:

This is to acknowledge your request to have the subject permit renewed. Accordingly, we will begin processing the permit for reissuance. The procedures for processing will be done in the same manner as was done with your original application. The conditions of your old permit will be reevaluated and, if you have asked for special considerations in the new permit, we will contact you for further discussion of the subject. State certification and Public Notice will be required prior to the issuance of the new permit.

If you have any questions, please write to this office at the above address or call (303) 837-4901.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Patrick J. Godsil".

Patrick J. Godsil  
Chief, Compliance Branch  
Water Management Division

cc: Utah Department of Health

## TECHNICAL ANALYSIS

### PRICE RIVER COAL COMPANY CRANDALL CANYON MODIFICATION ACT/007/004, Carbon County, Utah

#### Introduction

The Price River Coal Company has submitted an underground mining and reclamation permit application for the Price River Mine Complex. The Crandall Canyon modification to this mine plan has been reviewed under a complete technical and environmental assessment process because major changes in design for the underground mining operation have been developed. Due to the nature and extent of these changes, the length of the review process, and the pending necessity for their implementation, the Crandall Canyon modification was singled out for separate review and will later be assimilated into the entire complex mine plan review.

The facilities under review are located north of Price off of Highway 6 in northwestern Carbon County, Utah; T. 12 S., R. 9 E., Sections 27, 28 and 29. Twenty-eight acres of land are involved. The Price River, Willow Creek and Spring Canyon Creek are the closest drainages to the property. Mining activities associated with the modification take place in the #3 and #5 mines which have their main entries in Hardscrabble Canyon and Sowbelly Gulch to the south. Coal will not be hauled or extracted through the Crandall Canyon facilities. The proposed facilities in Crandall Canyon include; two mine access shafts, support facilities such as a bathhouse, warehouse, leach field and parking, as well as access roads. These are required to provide needed improvement in the ventilation of the mine and to reduce the underground transportation time for men and materials during the projected minimum 30 year life of the mine.

Mining in the consolidated leased and fee simple reserves has occurred to some degree in all mineable seams by various business entities since the turn of the century. In 1971, a corporate entity, Braztah, began mining activities. After internal reorganization in 1979, the operating interest became Price River Coal Company, a holding of the American Electric Power Company.

The proposed permit area is in the Wattis Planning Unit in the northwest portion of the Price River Resource Area, Moab District. The Wattis Planning Unit Management Framework Plan (MFP) was completed in March 1973. The MFP was updated in September 1978 and took into consideration 22 criteria developed under the Surface Mining Control and Reclamation Act, including meeting BLM requirements. An approved mining and reclamation plan under the interim program was issued by the Utah Division of Oil, Gas and Mining with USGS concurrence on April 27, 1977.

The current Mining and Reclamation Plan was received at the Division of Oil, Gas and Mining offices on March 20, 1981. The Apparent Completeness Review was finished and returned to Price River Coal Company together with USGS and OSM comments on July 17, 1981. Final submittal of the Crandall Canyon Modification was determined complete on December 17, 1981. Concurrence with the Determination of Completeness by the OSM was given on January 15, 1982. At the time when the Price River Complex Mining and Reclamation Plan completeness determination is made, the Crandall Canyon Modification will be included in the newspaper publications and agency notifications required under UMC 786.11(a) and (b). In addition, the OSM will review the Crandall Canyon Modification Technical Analysis in conjunction with their review of Price River Complex Technical Analysis and concurrence will not be necessary for completion of the review at this time. Coordination of review was achieved with the following State agencies; the Department of State Health, Division of Water Rights, Division of Wildlife Resources, and the following Federal agencies; the OSM, the Forest Service, the BLM and the USGS. Most agencies concerns have not dealt specifically with the Crandall Canyon Modification but rather with the other portions of the mine complex.

#### Existing Environment and Operations

The permit area is located in a narrow canyon of the Wastach Plateau. Elevation ranges approximately between 6,400 feet and 8,400 feet. Mixed mountain brush, Douglas fir/aspen forest and a riparian/canyon bottom complex are the major vegetation types located in the canyon. Most of the impact will be associated with the latter vegetation type. No known threatened or endangered species have been observed in the canyon.

The stream in the bottom of the canyon is classified as ephemeral above the spring which is located approximately one mile below the surface facilities. The reader is referred to the Environmental Assessment performed by the Bureau of Land Management on the power transmission line which supplies the electric power for the surface facilities.

#### UMC 817.11 Signs and Markers

#### Applicant's Proposal

The existing sign used on the permit area can be easily seen and read and indicates the name of the mine, owner and permit identification information. It is located at the public access point. Perimeter marker signs have been suggested by inspectors and a time period for implementation has been given. Topsoil stockpile signs are in current use. There are no perennial streams or a stream with a biological community on the permit area, therefore, no buffer zone markers will be necessary. No surface blasting will be conducted by the applicant and no signs will be posted.

Stipulation - 2-19-82-1TT

The applicant must submit a statement to the Division to the effect that all signs; identification, perimeter and otherwise, have been installed and conform specifically to the 817.11 regulations.

Compliance

The applicant will comply with this section when this stipulation is met.

UMC 817.13-.15 Casing and Sealing of Exposed Underground Openings

Applicant's Proposal

The two shafts proposed for the Crandall Canyon facilities will be lined with approximately one foot of concrete during construction. Interformational waters will be effectively sealed off or controlled throughout operational use. After operations, about one third of the material removed from the shafts will be available to be returned down hole (the remainder will have been emplaced into fills). All paved surfaces except for the access roadway will have been broken up and removed and consequently placed into the shafts. A reinforced concrete cap will be placed over the shafts and will be covered by at least two feet of surficial material.

Stipulation - 2-19-82-2TT

The applicant should submit a statement to the Division that all exploration holes and monitoring wells will be or have been abandoned in accordance with UMC 817.13-.15. (Although never specifically mentioned, the applicant is assumed to be aware of the minimum State and USGS requirements.)

Compliance

The applicant will comply with this section when this stipulation is met.

817.21-.25 Topsoil

Applicant's Proposal

Topsoil removal and storage procedures will be performed during all phases of site construction. Prior to construction activities for designated areas within the proposed area of disturbance, the topsoil or upper six (6) inches of unconsolidated growth medium will be removed and stored in designated locations (see Exhibits No. 4, 5 and 6). Existing organic materials will not be included in topsoil storage piles. Topsoil will only be collected from areas where collection is technologically feasible; considering degree of slope and percentage of large boulders as limiting factors. Specifically, topsoil removal will not occur in the rocky Castle Valley soil formations.

This includes slopes above the colluvial/alluvial valley soil complexes (Horrocks & Corollo, 7-79). Access road development, as shown in Exhibits 8A through 8F, will primarily disturb the Castle Valley formation with the exception of areas between State Route 6 and the first stream crossing. This stretch is "made land" (based on recommendations by the Bureau of Land Management and DOGM), being previously affected by highway construction. Some suitable growth material may be obtainable.

In areas where suitable unconsolidated growth media exists in excess of six inches, a greater amount may be collected to provide resoiling material in areas for which topsoil is unavailable.

Topsoil will be stored in designated areas to the point of stable capacity. Measures to achieve rapid growth will be attempted as soon as possible after each stockpile is complete. Methodology will include mechanical scarification, mulching, crimping and seeding with species of both an annual and perennial habit. Soil amendments will be added to stimulate growth as per soil test recommendations. Topsoil stockpiles will remain intact for a minimum of thirty (30) years. Surrounding mature species will not be discouraged from colonization. The following species will be included in the planting plan (based on recommendations by the Bureau of Land Management and DOGM):

<u>Common Name</u>	<u>Species</u>	<u>Habit</u>	<u>Lbs. Per Acre</u>
Barley	Hordeum vulgare	Annual	26
Intermediate Wheatgrass	Agropyron intermedium	Perennial	4
Russian wildrye	Elymous junceous	Perennial	4
Great Basin wildrye	Elymous cinereus	Perennial	4
Woods rose	Rosa woodsii ultramontana	Perennial	1/2
Bitterbrush	Purshia tridentata	Perennial	1/2
Curlleaf Mtn. Mahogany	Cecocarpus ledifolus ledifolus	Perennial	1/2
Birchleaf Mtn. Mahogany	Cecocarpus montanus montanus	Perennial	1/2

Upon final reclamation, all disturbed areas will be graded to approximate original contour, tying into the natural slopes. Stored resoiling material will be spread on all graded areas to a minimum depth of six (6) inches.

Fertilizer or other soil amendments will be applied to the seeded areas based on soil analyses to be performed at the time of resoiling.

The soils in the area are entisols, inceptisols and mollisols. These soils are found at an elevation of from 7,000-9,000 feet and have an annual precipitation in the range of 16-30 inches and a mean annual air temperature of about 38° F.

Stipulation - 2-19-82-3EH

817.22 Topsoil Removal

Applicant must indicate the depth and volume of soil to be removed from each area of construction. These figures are needed to insure enough soil material is available to provide the six inch depth of resoiling proposed by the applicant.

Stipulation - 2-19-82-4EH

UMC 817.22 Topsoil Removal

Applicant must indicate the equipment and methods to be employed in removal from insitu and transporting of topsoil to storage locations.

Stipulation - 2-19-82-5EH

817.23 Topsoil Storage

Applicant must address the methods of erosion control used to insure topsoil stockpile protection prior to plant establishment.

Stipulation - 2-19-82-6EH

817.24 Topsoil Redistribution

Applicant must provide the equipment and methods employed to insure that the requirements set forth under UMC 817.24 are achieved.

Compliance

Compliance will be achieved when the previous stipulations have been met.

817.41-.42 Water Quality Standards and Effluent Limitations

Applicant's Proposal

Price River Coal Company has proposed to utilize a sedimentation pond, #016, for topsoil storage runoff, an oil separator for facilities area runoff and a septic system with a leach field for waste water treatment. The sediment control facilities are described specifically under Sections UMC 817.45, 817.47 and 817.52 of this review.

Stipulation

None.

Compliance

Applicant has complied with this section.

UMC 817.43 Stream Channel Diversions

Applicant's Proposal

Applicant has adequately sized the permanent stream channel diversion for the ephemeral Crandall stream channel utilizing the Rational Method to determine the peak flow rate for the 100-year event in the Crandall Creek watershed. The Chezy-Manning formula was used to determine the minimum height and width required for the diversion channel to handle the peak flow rate.

The slopes of the channel will be riprapped as required and contained between the natural canyon wall stone facade and a concrete retaining wall in specific sections. The gradient of the floor of the stream channel will not be changed. Price River Coal Company intends to maintain and enhance the permanent stream channel diversion to reflect its natural condition.

Stipulation

None.

Compliance

Applicant has demonstrated compliance with UMC 817.44.

UMC 817.44 Stream Channel Diversions

Not applicable.

## UMC 817.45 Sediment Control Measures

### Applicant's Proposal

Applicant has not proposed sediment control devices for the support facilities area around the shaft. The basic assumption is that runoff will meet Federal and State effluent limitations for all parameters except oil and grease. Two oil separators will be installed along the facilities pad to ensure compliance for oil and grease in runoff from the shop-maintenance and paved areas. The oil skimmers are equipped to handle up to 30 gpm. Oil collected in the skimming device will be directed to a sump which will be pumped to a waste oil tank.

Natural drainage from the surrounding watershed will be routed directly to the stream channel by use of strategically located culverts. A stilling basin is proposed at the entrance of each culvert. The natural drainage diversion around the facilities area has been designed to pass the 25-year, 24-hour event. Calculations provided show that a surface ditch with a cross sectional area of 2.25 ft<sup>2</sup> will be adequate.

Drainage from the access road will be routed to a roadway ditch. Sizing calculations are adequate for predicted peak runoff.

### Stipulation - 2-19-82-7SK

If an NPDES permit is not required, then the operator shall carry out storm discharge monitoring from the two oil separators. Data shall be gathered at least once per 90 day period (assuming an occurrence of runoff). An analysis of the first flush should be carried out with at least one more discharge sample obtained 10 minutes later. Those parameters included in the impact monitoring program shall be applied to this analysis.

### Compliance

The applicant has not discussed monitoring storm water runoff as it discharges from the oil separators. Sampling the flow will determine the feasibility of utilizing this treatment technology. As stated in UMC 817.42(a)(3)(i), Price River Coal Company must demonstrate that a conventional treatment system is not warranted. If the monitoring stipulation is fulfilled, Price River Coal Company will be in compliance with the requirements of this performance standard.

## UMC 817.46 Hydrologic Balance

### Applicant's Proposal

Runoff from the topsoil stockpile at the west end of the facilities pad will be routed through a sediment pond designated as 016. Sizing calculations

provided show adequate treatment of runoff will be achieved. The topsoil resource will be protected in that 714 ft<sup>3</sup> collected in the sediment pond each year will be returned to the stockpile on an annual basis. The applicant has not provided detailed design specifications for the construction of pond 016.

Stipulation - 2-19-82-8SK

Applicant must submit detailed design specifications addressing UMC 817.46(j-u), as applicable, to assure the stable construction and operation of pond 016.

Compliance

The applicant will achieve compliance by submitting detailed design specifications for sediment pond 016 60 days prior to construction (or from this approval).

UMC 817.47 Discharge Structures

Applicant's Proposal

Applicant has provided calculations for the peak flow rate occurring from the 25-year event for the emergency spillway on pond 016.

The calculations for the storm drain system are provided for the 25-year, 24-hour event. Maximum runoff discharge and culvert sizing are provided.

Stipulation - 2-19-82-9SK

A plan must be submitted to the Division and approved at least 60 days prior to construction; the applicant must provide:

Detailed design specifications for the constructed spillway on pond 016. Include the design for point of discharge.

Stipulation - 2-19-82-10SK

The applicant must provide:

Designs indicating stormwater routing for upper and lower pad through oil separators.

Compliance

Applicant has not included design specifications for the spillway on pond 016. Although the size of the CMP riser is indicated, the discharge point is not discussed in terms of energy dissipation.

Stormwater routing must be indicated for the upper and lower pad areas to provide assurance that flows will run through the oil separators before discharge into Crandall Creek. When these stipulations have been met the operator will be in compliance.

UMC 817.48 Acid-forming and Toxic-forming Materials

Applicant's Proposal

Applicant has provided a toxicity analysis for the excavated materials due to shaft development. The materials are to be placed and compacted for facilities pad development. The pad will then be paved for the life of the shaft thus there is little chance that erosion or breakdown of these materials will result.

Stipulation

None.

Compliance

Applicant complies with this section.

UMC 817.49 Permanent and Temporary Impoundments

Not applicable.

UMC 817.50 Underground Mine Entry and Access Discharges

Applicant's Proposal

Any aquifers encountered during shaft development will either be grouted off or collected in shaft water rings and pumped to storage tanks for later use in the mine. Excessive inflow during and after shaft development will be discharged in accordance with State of Utah effluent limitations (addendum January 1982).

Stipulation

None.

Compliance

Applicant complies with this section.

UMC 817.52 Surface and Ground Water Monitoring

Applicant's Proposal

The applicant has two surface water monitoring stations located above and below the disturbed area in Crandall Canyon. These stations (B-25, B-26) were added to the two ground water monitoring stations in existence in April, 1981.

Ground water stations (B-22 and B-43) are located at and below surface facilities. The sample locations established will adequately depict the impacts due to the shaft excavation and operation and associated surface facilities occurring in Crandall Canyon.

Price River Coal Company has followed the State of Utah's guidelines for establishing surface and ground water baseline data in the mine plan area. Crandall Creek is an ephemeral drainage. Thus far, very limited surface water baseline data have been collected due to the erratic occurrence of flow. However, the amount of baseline data are sufficient for the reviewer to determine seasonal variation. The frequency of impact monitoring is as follows: ground water samples are collected biannually; and, surface samples are collected bimonthly.

In an addendum submitted in January 1982, Price River Coal Company requested to be allowed to discharge (70 gpm) overflow from storage tanks holding the discharge from shaft excavation. Unless a NPDES permit is issued for this flow, there will be no specific monitoring to characterize the quality of this flow.

The Manti-LaSal National Forest supervisor has expressed concern on the impact of changes in the ground water regime on surface resource management and present land-use due to the shaft excavation and use (letter dated May 5, 1981).

Stipulation

None.

Compliance

The applicant has shown compliance with this section.

UMC 817.53 Transfer of Wells

Not applicable.

UMC 817.54 Water Rights and Replacement

Applicant's Proposal

The applicant has not addressed the interruption, contamination or diminution of water supply for owners of real property who obtain their supply either from surface or ground water sources affected by the mining activity.

Stipulation - 2-19-82-11SK

Applicant must describe adjacent water uses which may be impacted by the shaft excavation and determine a means for supplying water if interruption, contamination or diminution occurs.

Compliance

Applicant must evaluate the impact of the shaft excavation and future use of the facilities on surrounding water users before being considered "in compliance" with this regulation.

UMC 817.55 Discharge of Water into an Underground Mine

Not applicable.

UMC 817.56 Postmining Rehabilitation of Sedimentation Ponds, Diversions, Impoundments and Treatment Facilities

Applicant's Proposal

The applicant proposes to maintain the present existing gradient of the stream channel floor. The upstream end will be widened to funnel the flow from upper slopes of the canyon. The slopes will either be rip-rapped or contained with a metal retaining wall.

Stipulation - 2-19-82-12SK

Price River Coal Company must submit an adequate discussion on measures to renovate the permanent Crandall Creek stream channel diversion at the time of final reclamation.

Compliance

The applicant has not discussed renovation of the permanent diversion at the time of final reclamation and therefore compliance with this section has not been achieved. When the stipulation is met, however, compliance will be achieved.

UMC 817.57 Stream Buffer Zones

Crandall Creek is classified as an ephemeral stream therefore this section does not apply.

UMC 817.59 Coal Recovery

Section 817.59, Coal Recovery, for the Price River Crandall Canyon facilities will be addressed in the Technical Analysis of the entire Price River Coal Company facility. As a mine access surface facility, no coal removal is directly involved in Crandall Canyon.

Stipulations

None.

Compliance

Compliance has been achieved.

UMC 817.61-.68 Use of Explosives

Applicant's Proposal

Explosives will be used below ground level to fracture resistant strata during shaft construction. No wells, dwellings or public buildings exist within 1/2 mile of the blasting sites. The blast site is nearly two (2) miles from any public roads.

Stipulation

None.

Compliance

Applicant will comply with Section 817.61-.68.

UMC 817.71-.74 Disposal of Underground Development Waste, Excess Spoil,  
Nonacid and Nontoxic-forming Coal Processing

Applicant's Proposal

All underground development waste encountered during the construction of the two shafts will be spread in even layers and compacted as fill beneath the batnhouse/office building, the parking lot, the access road at the intake shaft area and the exhaust shaft/sewage plant site. The fill area is considered a Valley Fill and will comply with the requirements of 817.71 and 817.72.

The development waste will be compacted in two foot lifts. The materials and plans for compaction have been reviewed by registered engineers and certified as acceptable for the use intended if properly compacted to 95 percent relative density (Exhibit 7A and 373.A, page 4).

The materials to be excavated and used in the fill construction have been chemically analyzed and determined to be nonacid/nontoxic-forming (Exhibit 7 [test hole analyzed] and Exhibit 7B [laboratory results]).

All water will be diverted away from and around the fill area by diversion ditches which will remain for the life of the facility. Exhibit 5 shows the diversion ditches and the drainage off of and under the fill area. The fill area will be paved.

The outslope of the fill is 1v:2h. This is the only portion of the fill that will not be bounded by a retaining wall or a natural slope (Exhibits 5A-5B and ACR response, page 12).

Exhibits 5A-5B show cross sections of the fill area.

Stipulation

None.

Compliance

Applicant will comply with 817.71-.74.

UMC 817.81-.88 Coal Processing Waste Banks

Applicant's Proposal

No coal processing waste will be associated with the Crandall Canyon Modification proposal.

Stipulation

None.

Compliance

The applicant complies with Sections 817.81-.88.

UMC 817.89 Disposal of Noncoal Waste

Applicant's Proposal

Applicant has stated that a contract will be let with a local trash hauling company who will most likely haul trash to the nearest approved landfill.

Waste oil will be stored in minimum 3,000 gallon capacity tanks and scavenged by contracted, licensed waste oil haulers. Solvents will be mixed with waste oil. Oil tanks will be installed within concrete berm areas capable of retaining the entire capacity of the tank without discharge. All oil spills will be captured. Exhibit 5 shows the location of waste oil storage.

Stipulation - 2-19-82-13MR

Applicant must obtain a letter from appropriate landfill authorities showing approval to dispose of trash at the landfill.

Stipulation - 2-19-82-14MR

Is the area where the oil and etc., stored in tanks covered by the application's SSCP plan?

Compliance

Applicant will comply if the above stipulations are met.

UMC 817.91-.93 Coal Processing Waste: Dams and Embankments

There is no coal processing waste generated at the Crandall Canyon facility.

UMC 817.95 Air Resources Protection

Applicant's Proposal

Price River Coal Company has committed to watering roads during construction activities to suppress dust. Upon final completion of the facilities in Crandall Canyon, the main access road and the majority of the disturbed area will be paved. Cut areas, banks, etc., that are not paved will be revegetated. Pursuant to the fact that coal or mining wastes will not be removed from the shafts at Crandall Canyon, no other measures should be necessary to control fugitive dust.

Stipulation

None.

Compliance

Pursuant to the MRP, this section is in compliance.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values

Applicant's Proposal

The permit area for the Crandall Canyon facilities are located in the Wasatch Plateau and is represented by the upper Sonoran/Transition and Canadian life zones. These life zones provide habitat for approximately 368 species of fish and wildlife of which the main species include mule deer, elk, mountain lion, black bear, blue grouse, cottontail rabbits, golden eagles and mourning doves.

High priority habitat for cougar, black bear and cottontail rabbit exists in the permit area. A pair of golden eagles have a nest in Robinson Gulch and another nest of this pair possibly exists in Crandall Canyon. No known threatened or endangered species have been found in Crandall Canyon.

The power transmission line between Hardscrabble Canyon and the Crandall Canyon facilities has been designed and constructed according to the criteria set forth in the REA Bulletin 61-10, Power Line Contacts by Eagles and Other Large Birds.

Several species of raptors inhabit the permit area. The applicant has in the past, and will continue to, notify the Division of Oil, Gas and Mining and the Division of Wildlife Resources of the locations of any nests or roost trees of raptors.

Stipulation

None.

Compliance

Pursuant to the MRP, this section is in compliance.

UMC 817.99 Slides

Applicant's Proposal

The Slope Stability Analysis Report submitted for cut/fill slopes on the access road suggests there is a possibility of slumping on the steeper slopes should the slopes become saturated. It also concludes that it was unlikely a massive slope failure would occur in this area.

Stipulation - 2-19-82-15MR

Should a slide occur within the permit area, the applicant would be required to notify the Division and comply with any remedial measures required by the Division.

Compliance

This applicant will comply with this section when the above stipulation is met.

UMC 817.100 Contemporaneous Reclamation

Applicant's Proposal

Price River Coal Company has committed to revegetate all areas of disturbance (i.e., road cuts, outslopes, etc.) to prevent erosion as soon as it is feasible after disturbance to establish a vegetative cover.

Stipulation

None.

Compliance

Pursuant to the MRP, this section is in compliance.

UMC 817.101-.106 Backfilling and Grading

Applicant's Proposal

Upon final reclamation, approximately 34 percent of the materials removed during shaft construction will be returned to the shafts. The remaining material will be graded and used to backfill any toe of slope cuts. The reclamation contour will approximate the original contour and be 3-10 feet higher in elevation. Stable drainage ways will be established across the regraded areas. All backfilling and grading reclamation will be done in accordance with the reclamation timetable (3.75C, page 35-38).

Final reclamation cross sections are shown on Exhibits 9, 9A, 9B and 9C. Exhibit 9 shows the natural drainage pattern.

The fill material has been tested for toxicity and is classified as nonacid/nontoxic-forming (Exhibit 7B).

Stipulation

None.

Compliance

Applicant will comply with this section.

UMC 817.111-.117 Revegetation

Applicant's Proposal

Price River Coal Company has selected to use the "reference area" method for establishing the success criteria and standards for revegetation success.

Three community types will be affected by the activities in Crandall Canyon, and reference areas have been established for each type and approved by the Division (see memos dated August 20, 1981, and August 27, 1981).

The "riparian bottom" community encompasses a narrow band along the bottom of the canyon. Living cover was estimated at 47.2 percent, woody plant density at 550 plants/acre (146 trees/acre and 404 shrubs/acre) and production at 2,500-3,000 pounds dry weight/acre. The reference area for this type is located approximately .5 miles below the surface facilities.

The "conifer" community occurs on north-facing slopes in the canyon. Less than two acres of this type will be affected. Total living cover for this type was estimated at 74.4 percent, tree density at 400 trees/acre, shrub density at 5,350 plants/acre and productivity at 200-300 pounds dry weight/acre.

The "mixed brush" community encompasses most of the south-facing slopes at lower elevations. Total cover for this type was estimated at 40.9 percent, shrub density at 2,500 plants/acre and productivity at 650-700 pounds dry weight/acre.

The goal of the applicant's revegetation effort is to return the area to premining conditions and productivity.

The seed mixes to be used for reclamation are adapted to the area and are compatible with the postmining land-use.

Stipulation

None.

Compliance

The applicant is in compliance with this section.

UMC 817.121-.126 Subsidence Control

Applicant's Proposal

The applicant has agreed with the Division of Oil, Gas and Mining that the effects of subsidence associated with mining in the multiple seam area beneath

Crandall Canyon will be better addressed during a review of the entire complex. An analysis at this time associated with a review of surface facility installations would be inappropriate.

Stipulation

None.

Compliance

The applicant will comply with these sections when a review is conducted of the Complex plan.

UMC 817.131 Cessation of Operations: Temporary

Applicant's Proposal

The applicant has not addressed this section.

Stipulation - 2-19-82-16MR

The applicant must address Section 817.131 and comply with this regulation should temporary abandonment of the Crandall Canyon facility be initiated.

Compliance

Applicant will comply with this section when the stipulation is met.

UMC 817.132 Cessation of Operations: Permanent

Applicant's Proposal

The Crandall Canyon facility will remain active for a minimum of thirty (30) years. All surface facilities and structures will be removed in accordance with the reclamation activities listed on 3.75C, page 35-39. All areas will be backfilled, graded and revegetated in compliance with regulations. The mine access road will remain (discussed under Section 817.150-.176, Roads).

Stipulation

None.

Compliance

Applicant will comply with 817.132.

## UMC 817.133 Postmining Land-Use

### Applicant's Proposal

The premining land in Crandall Canyon is primarily undeveloped and unmanaged. Much of the land is owned by Price River Coal Company and leased to local ranchers for light cattle grazing. No management activities or hay production have taken place. Historical and cultural studies (3.74G) revealed some past use in the canyon; residential, recreational and sheep herding. These uses existed fifty (50) years ago and the area has returned to an undeveloped state through natural succession.

Postmining reclamation activities will reestablish the land to conditions capable of supporting the land-use activities before mining began.

### Stipulation

None.

### Compliance

Applicant will comply with Section 817.133.

## UMC 817.150-.176 Roads

### Applicant's Proposal

The access road to Crandall Canyon is an existing jeep trail and will be upgraded to meet the requirements of a Class II road. Exhibits 8B-8F show plans and profiles of the access road. The overall road grade is approximately 5.5 percent. The maximum pitch grade is 9.0 percent. Typical roadway cross sections showing proposed cut/fill slopes have been submitted as Figure No. 1 found in the Slope Stability Analysis Report, October 1981. The analysis concluded that slopes would be stable under ordinary conditions (a factor of safety of 1.5 and 1.6 was obtained). The report added that if the slopes become saturated, slumping of the steeper slopes will likely occur. It is not anticipated any massive slope stability failures will occur in this area. Recommendations for construction of the facility to help prevent slope failure are submitted in the Slope Stability Analysis Report. A typical access road cross section shows the road surface sloped two percent from the centerline to drainage ditches (Exhibit 5B). The drainage culverts in Crandall Canyon were designed to handle a 10-year, 24-hour precipitation event. Culverts are located at the "fingers" in the canyon and/or every 500 feet (shown on Exhibits 8B-8F). Typical culvert design is shown on Attachment 7, ACR response. Culvert sizing calculations for various drainages were included in a Hydrological Report, July 20, 1981. The road crosses the stream channel in three locations. Bridges are designed to safely pass a 100-year, 24-hour precipitation event (MRP-373.B, page 7). The access road will be 24 feet wide and hard surfaced.

To facilitate safe access between the proposed Crandall Canyon road and Utah State Route 6 at the mouth of Crandall Canyon, a new intersection will be constructed to Utah Department of Transportation specifications. Exhibit 8A shows plans, profiles and a typical cross section of the intersection.

A Class III road will be constructed to provide access for construction equipment and infrequent routine inspection to the leachfield. Plans, typical cross section and profile of the road is shown on Plates 1 and 2 in the Crandall Canyon Waste Water Treatment Plan (WWT). The road is discussed in the WWT Plan. The overall road grade is eight percent. The maximum pitch grade is approximately 10 percent. Road cuts are 1v:1.5h, 1v:1h; fills are 1v:2h, 1v:4h. Drainage design calculations are shown in WWT Plan. Thirty-six inch culverts have been used for the major drainage areas that cross the roads. The road will be 24 feet wide, crowned at the center and surfaced with gravel.

Reclamation. The access road will remain a hard surfaced permanent road from the state highway to the edge of the lower pad area. The road beyond that point will be returned to a Class III condition, tying into the pre-existing road system up the canyon. The permanent road is needed for access to evaluate reclamation, continuation of the subsidence monitoring program and to provide a corridor to upper canyon grazing areas which will be leased after reclamation is successful.

#### Stipulation - 2-19-82-17MR

Applicant must submit a letter from UDOT stating their approval of plans for the new intersection at Utah State Route 6 and the Crandall Canyon access road.

#### Compliance

When the above stipulation is met, the applicant will comply with 817.150-.176.

#### UMC 817.180 Other Transportation Facilities

The applicant is in compliance as this section is not applicable to the Crandall Canyon facilities.

#### UMC 817.181 Support Facilities and Utility Installations

#### Applicant's Proposal

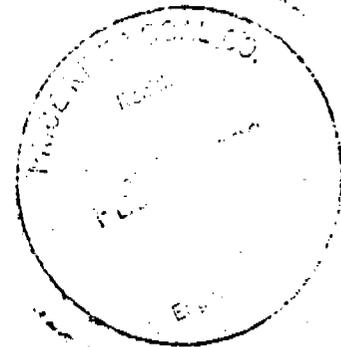
Price River Coal Company plans to construct the following support facilities in Crandall Canyon; hoist building, fan house, bathhouse, office, warehouse and a power transmission line between Hardscrabble Canyon and Crandall Canyon.

STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Clegg B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 3, 1982



Mr. Rob Wiley  
Environmental Engineer  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84526

FEB 09 1982

RE: Shaft Development Discharge  
Price River Coal Company  
Crandall Canyon  
ACT/007/004  
Carbon County, Utah

Dear Mr. Wiley:

The Division of Oil, Gas and Mining has reviewed Price River Coal Company's request to discharge the overflow from water storage tanks at the Crandall Canyon Shaft Facility. The source of this water is the discharge which occurred in the alluvial material strata during shaft excavation. It is understood to be a discharge of 100,000 gpd. Price River Coal intends to use 12,500 gpd for drilling water and potable supply and discharge 87,500 gpd to the Crandall Creek stream channel.

The water quality data submitted on the tank overflow and the sediment pond discharge did not prove to meet State effluent limitations in all cases. The two most recent samples, one which was obtained on December 7, 1981, and one where results were reported on December 23, 1981, exhibited total suspended solid (TSS) levels of 25.5 mg/l and 34.5 mg/l, respectively. This, of course, is in excess of the 25 mg/l limit on TSS which Water Pollution Control had discussed in their letter of January 25, 1982.

Another area of concern is the fact that the change in use permit issued by Water Rights indicates the discharge is anticipated to continue for at least one year.

While a discharge which meets State water quality effluent limitations is normally allowed to occur without an NPDES permit, the Division finds that the quality of this discharge is questionable and should be submitted to EPA for review and written determination on the need to permit this flow.

Mr. Rob Wiley  
ACT/007/004  
February 3, 1982  
Page 2

While the EPA and Bureau of Water Pollution Control have granted a verbal approval for Price River Coal to discharge to Crandall Creek, Mr. Robert Burn and Mr. Rob Waline of the Denver EPA have requested a copy of this application for their review to make a determination on the NPDES issue.

Therefore, realizing the impact that this discharge is having on the sediment pond structure and the fact that the quality of some of the discharge samples met effluent limitations, the Division approves of the discharge system proposed with the following stipulations:

Stipulation 2-4-82-1-SK:

The storage and discharge system should be upgraded for routing and discharging excess flow within one month of this approval. Price River Coal shall route all excess discharge through the pipe system and assure the maintenance of riprap or energy dissipation material at the point of discharge.

Stipulation 2-4-82-2-SK:

Price River Coal Company has indicated both verbally (technical inspection January 16, 1982) and in the Crandall Canyon permit application that the sediment pond will be moved during construction of the road. The applicant must submit plans for such a modification 90 days prior to construction.

If there is a problem in meeting these time limitations, please contact me.

Sincerely,

*Sally Kefer*  
SALLY KEFER  
RECLAMATION HYDROLOGIST

cc: Rob Waline, EPA, Denver  
Steve McNeal, Bureau of Water Pollution Control

SK/btb

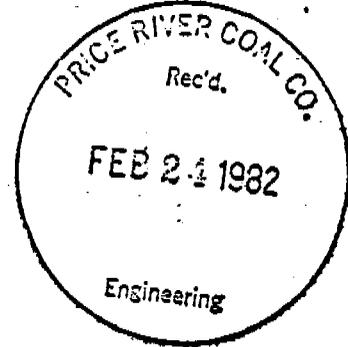


STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 19, 1982



REGISTERED - RETURN RECEIPT REQUESTED

Mr. Robert Wiley  
Environmental Engineer  
Price River Coal Company  
P.O. Box 629  
Helper, Utan 84526

RE: Technical Analysis Completion for  
Crandall Canyon Modification  
ACT/007/004  
Carbon County, Utah

Dear Mr. Wiley:

The Division has completed its technical review of the Crandall Canyon Modification to the Price River coal Company mine plan. A conditional approval is hereby given based upon acceptance and implementation of seventeen separate stipulations herewith attached:

Stipulation - 2-19-82-1TT (UMC 817.11)

The applicant must submit a statement to the Division to the effect that all signs; identification, perimeter and otherwise, have been installed and conform specifically to the 817.11 regulations.

Stipulation - 2-19-82-2TT (UMC 817.13-.15)

The applicant should submit a statement to the Division that all exploration holes and monitoring wells will be or have been abandoned in accordance with UMC 817.13-.15. (Although never specifically mentioned, the applicant is assumed to be aware of the minimum State and U.S. Geological Survey requirements).

*STATEMENTS*

Stipulation - 2-19-82-3EH (UMC 817.22)

The applicant must indicate the depth and volume of soil to be removed from each area of construction. These figures are needed to insure enough soil material is available to provide the six inch depth of resoiling proposed by the applicant.

*7 1/2" depth*

Stipulation - 2-19-82-11SK (UMC 817.54)

The applicant must describe adjacent water uses which may be impacted by the shaft excavation and determine a means for supplying water if interruption, contamination or diminution occurs.

Stipulation -2-19-82-12SK (UMC 817.56)

Price River Coal Company must submit an adequate discussion on measures to renovate the permanent Crandall Creek stream channel diversion at the time of final reclamation. *W NBT ???*

Stipulation - 2-19-82-13MR (UMC 817.89)

The applicant must obtain a letter from appropriate landfill authorities showing approval to dispose of trash at the landfill. *see copy*

Stipulation - 2-19-82-14MR (UMC 817.89)

Is the area where the oil and etc., stored in tanks covered by the application's SSCP plan? *SPCC YES*

Stipulation - 2-19-82-15MR (UMC 817.99)

Should a slide occur within the permit area, the applicant would be required to notify the Division and comply with any remedial measures required by the Division. *OK*

Stipulation - 2-19-82-16MR (UMC 817.131)

The applicant must address Section 817.131 and comply with this regulation should temporary abandonment of the Crandall Canyon facility be initiated. *OK*

Stipulation - 2-19-82-17MR (UMC 817.150-.176)

The applicant must submit a letter from the Utah Division of Transportation stating their approval of plans for the new intersection at Utan State Route 6 and the Crandall Canyon access road. *GIVE LTR FOR COMPLIAN*

These stipulations must be accepted in writing before approval is issued. All stipulations must be implemented and proof furnished to the Division within 60 days of the date of Division approval unless otherwise noted within a stipulation.

Stipulation - 2-19-82-4EH (UMC 817.22)

The applicant must indicate the equipment and methods to be employed in removal from insitu and transporting of topsoil to storage locations.

Stipulation - 2-19-82-5EH (UMC 817.23)

The applicant must address the methods of erosion control used to insure topsoil stockpile protection prior to plant establishment.

Stipulation - 2-19-82-6EH (UMC 817.24)

The applicant must provide the equipment and methods employed to insure that the requirements set forth under UMC 817.24 are achieved.

Stipulation - 2-19-82-7SK (UMC 817.45)

If an NPDES permit is not required, then the operator shall carry out storm discharge monitoring from the two oil separators. Data shall be gathered at least once per 90 day period (assuming an occurrence of runoff). An analysis of the first flush should be carried out with at least one more discharge sample obtained 10 minutes later. Those parameters included in the impact monitoring program shall be applied to this analysis.

Stipulation - 2-19-82-8SK (UMC 817.46)

The applicant must submit detailed design specifications addressing UMC 817.46 (j-u), as applicable, to assure the stable construction and operation of pond 016.

Stipulation - 2-19-82-9SK (UMC 817.47)

A plan must be submitted to the Division and approved at least 60 days prior to construction; the applicant must provide:

Detailed design specifications for the constructed spillway on pond 016. Include the design for point of discharge.

Stipulation - 2-19-82-10SK (UMC 817.47)

The applicant must provide:

Designs indicating stormwater routing for upper and lower pad through oil separators.

WILL USE MOST SUITABLE EQUIP.

WHAT TO DO?

NEGOTIATE FIXED TIME PERIODS

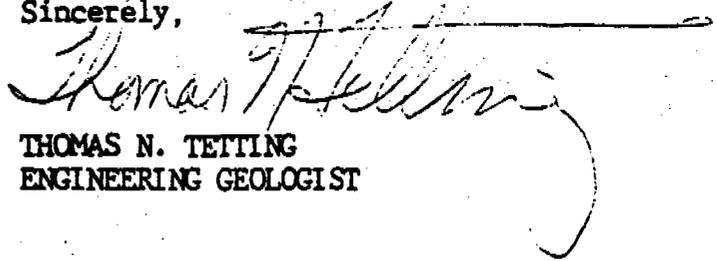
NEGOTIATE FOR LESS TIME

Mr. Robert Wiley  
February 19, 1982  
Page 4

A complete compilation of all material requested for the modification should be kept on file at the Carbon County Recorder's office.

If any questions develop or you desire to have further discussion over any of the stipulations, please contact Lynn Kunzler or myself.

Sincerely,



THOMAS N. TETTING  
ENGINEERING GEOLOGIST

TNT/te

cc: Richard E. Dawes, OSM, Denver  
Jackson Moffett, U.S.G.S.

Enc: T.A.

These facilities will be constructed so as to minimize damage to fish, wildlife and related environmental values. All runoff from this area will pass through approved sediment control devices so as to minimize the contribution of suspended solids to stream flow or runoff outside the permit area.

Stipulation

None.

Compliance

The applicant is in compliance with this section.



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

March 5, 1982

Rob Wiley  
Price River Coal Company  
P. O. Box 629  
Helper, Utah 84525

RE: Raptor Protection on Power Lines  
ACT/007/004  
Carbon County, Utah

Dear Rob:

Enclosed are the results of the U. S. Fish and Wildlife Service survey of August 24-28, 1981. As you will note, all existing lines on Price River Coal Company's permit area were surveyed.

The Division feels that modifying any additional poles would not be required at this time. Should problems arise in the future, or if it becomes evident that raptors are using the "Unmodified" poles, it may be necessary to modify additional poles. Price River Coal Company should contact the Division to make the necessary arrangements to have the lines resurveyed and approve modification designs.

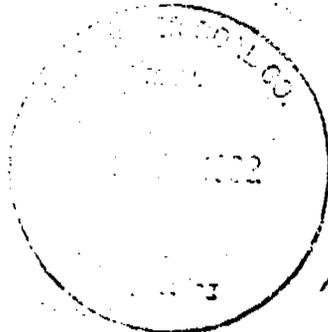
Sincerely,

LYNN M. KUNZLER  
RECLAMATION BIOLOGIST

Enclosure

cc: OSM

LMK/lk



Board: Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck  
Robert R. Norman • Margaret R. Bird • Herm Olsen



United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement

BROOKS TOWERS

1070 15TH STREET

DENVER, COLORADO 80202

March 3, 1982

File Act/1007  
Copy to Jack  
Tam T., L  
& me

DIR  
MAR 13 1982

Mr. James W. Smith, Jr.  
Coordinator of Mined Land Development  
Utah Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Dear Mr. Smith:

This is in response to the February 19, 1982 registered letter from Thomas Tetting of your staff addressed to Mr. Robert Wiley of the Price River Coal Company, and copied to the Office of Surface Mining. Mr. Tetting's letter grants conditional approval for the Crandall Canyon modification mining and reclamation plan "based upon acceptance and implementation of seventeen separate stipulations herewith attached."

Since the Crandall Canyon Modification involves Federally owned coal presently permitted under 30 CFR 211 regulations, it is an action falling under the purview of the Federal Lands Program. We have reviewed our records and have found no indication of OSM approval for the action referenced in Mr. Tetting's February 19, 1982 letter to the applicant. (A summary of events relating to this proposed action is attached.) Our most recent communication, that of January 15, 1982, only provided concurrence with the Utah Division of Oil, Gas, and Mining that the Crandall Canyon Modification mining and reclamation plan is apparently complete.

Since the processing of this application is now well along, i.e., the Technical Analysis has been prepared by the State, it may be possible for this office to schedule an early review and to process the proposed action as a major modification to the 211 permit. If OSM concurs with the State's analysis such that approval can be recommended, the application for a major modification would then be forwarded to the Office of the Secretary. In the meantime, however, the Price River Coal Company does not have authority to conduct operations other than under the existing approved conditions (30 CFR 741.11).

We therefore respectfully request your office rescind the February 19, 1982 conditional approval for the Crandall Canyon Modification.

Sincerely,  
*Richard E. Dawes*

Richard E. Dawes  
Acting Administrator  
Western Technical Center

Attachments

cc: Jean Hunt

CHRONOLOGY OF EVENTS  
RELATING TO THE  
CRANDALL CANYON MODIFICATION  
OF THE  
PRICE RIVER MINING COMPLEX

Background: The Crandall Canyon Modification is a part of the Price River Mining Complex. The Mining and Reclamation Plan (MRP) for the Complex was submitted to the Office of Surface Mining (OSM) on September 22, 1978. An Apparent Completeness Review (ACR) has not been started on the MRP for the Price River Mining Complex. The Complex consists of the following mine plant facilities: The surface plant, which is located on the old Castle Gate town-site, includes transfer bins, crusher and screening plant, storage piles, conveyors, washing plant, settling ponds, reject bin, train loadout facilities, laboratory, shops, office, thickener tank, warehouse, bathhouse and parking area. Portal facilities consisting of office, shop, warehouse, and bathhouse facilities are located at each of the No. 3 and No. 5 mine portals.

The Crandall Canyon Modification consists of construction plans for the following facilities: Two mine shafts, a Class II access road, water and gas lines, mine ventilation system, men and materials hoisting system, bathhouse-office building, sewage treatment plant, workshop-warehouse building and storage area, parking area, electrical power substation and line, and stream channel diversions.

Chronology:

1. June 30, 1981 — Utah Division of Oil, Gas, and Mining (Utah DDOG), with verbal concurrence from the Office of Surface Mining (OSM), approved construction of 46 kilovolt power line in Crandall Canyon (across Bureau of Land Management land).
2. July 20, 1981 — Letter from Utah DDOG to OSM stating the Mining and Reclamation Plan (MRP) for the Crandall Canyon Modification was determined incomplete [regarding Apparent Completeness Review (ACR)].
3. July 21, 1981 — Utah DDOG letter to Price River Coal Company (PRCC) stating MRP for Crandall Canyon Modification was determined incomplete (regarding ACR).
4. July 20, 1981 — Utah DDOG letter informing OSM of their decision to approve PRCC's plan to construct a 4 month emergency heliport facility in support of new power line construction.
5. September 16, 1981 — Copy of 22 page response to Utah DDOG ACR by PRCC for the Crandall Canyon Modification MRP.
6. October 19, 1981 — Utah DDOG letter to OSM documenting the United States Fish and Wildlife Service power line surveys and determination that raptor electrocution problems are not anticipated in Crandall Canyon project area.

7. October 22, 1981 — Letter from Utah DDCM to OSM asking if there are any questions regarding the installation of the access road to the Crandall Canyon Modification. PRCC was informed by Utah DDCM that permission was granted to "mobilize construction crews" as of October 22, 1981.
8. November 6, 1981 — Letter from Utah DDCM to OSM stating Utah DDCM has found the Crandall Canyon Modification MRP to be complete and is still awaiting OSM response on road modification.
9. November 9, 1981 — OSM in Denver, Colorado received memo from OSM Civil Engineer in Kansas City, Missouri approving Crandall Canyon access road design.
10. November 9, 1981 — OSM gave verbal concurrence on "minor" modification to a 211 permit of the Crandall Canyon access road. This road is located on private land.
11. November 12, 1981 — Letter from Utah DDCM to PRCC informing of verbal concurrence from OSM on road construction. Included a copy of Determination of Completeness (DOC) Review completed by Utah DDCM staff. The DOC referred to was not attached, but it is assumed that this is the same DOC referenced in Utah DDCM's November 6, 1981 letter covering the Crandall Canyon Modification MRP. Letter states that concurrence has not been received from OSM on DOC for the Crandall Canyon Modification MRP and a consolidated DOC is expected by the middle of December, 1981.
12. December 1, 1981 — Letter from PRCC to OSM enclosing copy of completed information on waste water handling for Crandall Canyon Modification.
13. December 8, 1981 — Letter from Utah DDCM to PRCC stating that leachfield design plans for the Crandall Canyon Modification were received and would be included in the final Technical Analysis (TA) of the Crandall Canyon Modification to the Price River Mining Complex MRP.
14. December 11, 1981 — Letter from Utah to PRCC informing company of an administrative delay in the review of Price River Complex MRP. Staff shortages and reviews of modifications rather than permanent permit applications have caused delays.
15. December 17, 1981 — Letter from Utah DDCM to OSM stating that the Utah DDCM has determined the Crandall Canyon Modification MRP apparently complete. This letter states the following, "An approved plan will be incorporated into the complete complex plan insofar as becoming an integral part that will not need to be reviewed at a future date."
16. January 12, 1982 — Telephone conversation between Tom Tetting of Utah DDCM and John Montgomery of OSM. Mr. Tetting informed Mr. Montgomery that Utah DDCM would be conducting an "in-house" review of the Crandall Canyon Modification MRP. According to

16. Mr. Tetting, after this process was completed, the approved Grandall (cont'd.) Canyon Modification plans would be "shelved" until the Price River Complex MRP was ready for review. At that time, the Grandall Canyon Modification plans would be reactivated and become a part of the Price River Complex MRP review process.
17. January 13, 1982 — Based on clarification provided by Tom Tetting's telephone conversation of 1/12/82, OSM sent letter to Utah DQCM concurring that the Grandall Canyon Modification MRP is apparently complete. This concurrence was given with the understanding that at the time when the Price River Complex MRP completeness determination is made, the Grandall Canyon Modification completeness determination will be included in the newspaper publications and agency notifications required under USC 786.11 (a) and (b).
18. February 19, 1982 — Utah DQCM sent OSM a copy of their letter to PRCC informing them that they (Utah DQCM) have completed the technical review of the Grandall Canyon Modification. The letter stated, "A conditional approval is hereby given based upon acceptance and implementation of seventeen separate stipulations herewith attached." OSM was told (1/12/82 telephone conversation) that Utah DQCM was not planning to approve the Grandall Canyon Modification at this time. OSM had not seen the State's TA and stipulations prior to receipt of the copy of this letter to the company.
19. February 26, 1982 — Telephone conversation between Tom Tetting of Utah DQCM and John Montgomery of OSM. Mr. Tetting informed Mr. Montgomery that Utah DQCM has granted PRCC the approval to complete the Grandall Canyon Modification. According to Mr. Tetting, PRCC plans to start construction at the Grandall Canyon site this spring—1982.

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

March 9, 1982

CERTIFIED MAIL NO. 3968379  
Return Receipt Requested

Mr. Cleon B. Feight, Director  
Utah State Department of Natural Resources  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Re: Stipulations for the Conditional Approval for the  
Completion of PRCC's Crandall Canyon Facility

Dear Mr. Feight:

Price River Coal Company's management and engineering staffs have reviewed the seventeen stipulations developed by your technical people. We are concerned that many of these stipulations are unnecessarily duplicative of existing regulatory requirements, while others are overly restrictive and lack adequate legal basis in either the letter or intent of the Surface Mining and Reclamation Law. In view of narrow interpretations of stipulated approvals by members of your staff in the past, we are justifiably concerned that if we were to commit ourselves to the seventeen stipulations, we would still lack authorization to proceed for at least another sixty days and would remain in jeopardy of shutdown as a result of an overly restrictive interpretation of the stipulated approval.

It has been nearly a year and one-half since our staff and the leading members of your agency first discussed the Crandall Canyon development. We were led to believe that we could design and construct our facility in an orderly and cost-efficient manner. We felt that your people understood the multi-faceted nature of this project and how each phase of construction interlocked with the next to achieve the final result in a timely manner. Unfortunately, this original understanding was, somehow, misplaced as new personnel moved into your agency and began to re-review the project. The resulting delays have caused us to suffer cost over-runs in the hundreds of thousands of dollars with little or no benefit from increased environmental protection. Moreover, the pounds of pointless paper that have been exchanged between us over the past year have not resulted in any significant change in the original design of our project,

Mr. Cleon B. Feight, Director  
Division of Oil, Gas, and Mining  
March 9, 1982  
Page Two

nor provided better environmental controls. What has resulted, however, has been the extension of the period of construction and the attendant potential for environmental degradation by at least six months.

We have attempted to be cooperative in responding to your staff's requests for information. We are frustrated to find that many of the stipulations relate to submission of additional information which in our view, has already been submitted to the staff. As indicated above, we also feel that many of the stipulations exceed the requirements of the Surface Mining and Reclamation Law, and if accepted, would unnecessarily restrict our ability to proceed with the project. For instance, one of the proposed stipulations requires that certain designs for a small sediment pond that has already been approved by the Department of Health, be submitted to the Division and approval obtained, sixty days prior to commencement of construction.

I will limit my comments here and refer you to the attached draft responses to the stipulations prepared by my engineering staff. These draft responses are for your review and need not proceed beyond your desk until we can discuss this matter further. I would be grateful if you could make time available in the near future for us to meet and resolve these problems. We would be happy to meet with you in your office and arrive at an acceptable permitting format so that we may complete the Crandall Canyon development with minimal additional losses in time and capital.

Very truly yours,

*Gordon Cook*

Gordon Cook  
Vice President and  
General Manager

GC:ga

Attachment

FIRST DRAFT RESPONSE TO DOGM TECHNICAL  
ANALYSES AND STIPULATED PERMIT  
FOR CRANDALL CANYON

Stipulation - 2-19-82-1TT (UMC 817.11)

*ok* The applicant must submit a statement to the Division to the effect that all signs; identification, perimeter and otherwise, have been installed and conform specifically to the 817.11 regulations.

- All signs and markers are installed in Crandall Canyon. Perimeter markers are of lathe and flag type construction. We hope this is acceptable during the construction phase.

Stipulation - 2-19-82-2TT (UMC 817.13-.15)

*ok* The applicant should submit a statement to the Division that all exploration holes and monitoring wells will be or have been abandoned in accordance with UMC 817.13-.15. (Although never specifically mentioned, the applicant is assumed to be aware of the minimum State and U.S. Geological Survey requirements.

- Any holes or wells drilled after August of 1977 have been abandoned in accordance with UMC 817.13-15. Holes drilled and abandoned prior to that date were handled in accordance with USGS requirements.

Stipulation - 2-19-82-3EH (UMC 817.22)

The applicant must indicate the depth and volume of soil to be removed from each area of construction. These figures are needed to insure enough soil material is available to provide the six inch depth of resoiling proposed by the applicant.

- We have indicated on page 18 of the 2-81 Crandall Canyon document, reiterated in our 7-81 ACR response and discussed the subject of topsoil removal and replacement on page 3 of our Crandall

wastewater plan. We have included soils information in Chapter VIII of our major mine plan. Additionally, on 10/20/81, we provided further explanation of area of soil removal and transmitted to you; mapping and soil descriptions compiled by the S.C.S.; on 12/4/81, we transmitted to you the results of soil probing exercise performed on the upper site, complete with hole descriptions and a map.

We feel that we have more than complied with 817.22. We do not understand what more you want. We have said that we will take 6" of topsoil or whatever is available from the area to be disturbed. If we cannot find enough for reclamation, the regulations give us option to import it (817.22(g)).

We feel that this requirement for additional soils information is unclear, potentially overly burdensome without sufficient additional environmental protection and possibly illegal (if the intent is to require soils mapping; this section, as you know, has been set aside as part of Flannery's decisions. We cannot accept this requirement as a stipulation to a permit to finish the Crandall Canyon development.

Stipulation - 2-19-82-4EH (UMC 817.22)

The applicant must indicate the equipment and methods to be employed in removal from insitu and transporting of topsoil to storage locations.

- There is clearly no requirement in 817.22 for the specific equipment and methods for topsoil removal or transport. Although we do not mind telling you, we object to this as a permit stipulation. We have instructed our contractor to remove and store the upper 6 inches of material in a designated location using equipment most suited for the job. This could include a front-end loader, a pan or a dozer. As long as we remove and store all the topsoil that can be gathered with such equipment, we have met the requirements of the regulations. We will not accept this stipulation as part of a permit.

Stipulation 2-19-82-5EH (UMC 817.23)---

The applicant must address the methods of erosion control used to insure topsoil stockpile protection prior to plant establishment.

EROSION CONTROL

- UMC 817.23(1) states that protection shall be accomplished either by:

UMC 817.23(1)  
EROSION CONTROL

1. Plant establishment; or
2. Other methods approved by the Division.

We have not requested any other method than plant establishment for topsoil protection. The rule defines protection as primarily plant establishment and does not even hint at any other interim method. To what is this stipulation referring? We certainly cannot accept it as part of our permit.

Stipulation - 2-19-82-6EH (UMC 817.24)

The applicant must provide the equipment and methods employed to ensure that the requirements set forth under UMC 817.24 are achieved.

- Similar to Stipulation 4EH, we cannot accept this as a permit requirement. The equipment and methods used will be those which are capable of doing the job considering the topographic conditions. We could not even suggest what type of soil spreading equipment may be available or best suited 30+ years from now.

We feel that you are exceeding the letter and the intent of the law to require such information as part of a permit.

Stipulation - 2-19-82-7SK (UMC 817.45)

If an NPDES permit is not required, then the operator shall carry out storm discharge monitoring from the two oil separators. Data shall be gathered at least once per 90 day period (assuming an occurrence of runoff). An analysis of the first flush should be carried out with at least one more discharge sample obtained 10 minutes later. Those parameters included in the impact monitoring program shall be applied to this analysis.

- It is unclear exactly how 817.45 requires monitoring. Monitoring is required as per Section 817.52(b). This section requires that we monitor according to plan. We do this. We have included in our plan two new monitoring points in Crandall Canyon; one above the site and one below. We feel that this is adequate. No finding has been made to the contrary. We cannot commit to the recommended storm discharge monitoring for an unspecified time. We will monitor discharge from the oil separator for several storms to assure

ourselves that it works. We will be glad to provide you with this information.

We intend only to use one oil separator. It appears that two were shown on Exhibit S. This was a minor error. Please note that ACR Response, Attachment 7, discusses only one oil separator for the maintenance shop. The attendant illustration sheet, "Crandall Canyon - Drainage Details", shows the routing through the only oil separator intended. Additionally, further information provided to S. McNeal of Utah Department of Health, Water Quality Section, on 10/27/81, included a short discussion of the single oil separator. This communique was transmitted to S. Keefer of DOGM, via certified mail, on the same day. Effluent characteristics analyzed shall be those required by our NPDES Permit and for as long as we operate under such a permit. The oil separator and other water handling structures have been approved for construction by UDH as of 1/25/82.

Stipulation - 2-19-82-8SK (UMC 817.46).

The applicant must submit detailed design specifications addressing UMC 817.46(j-u), as applicable, to assure the stable construction and operation of Pond 016.

- Most specifications were submitted with the 7/81 ACR Response document. The same information was submitted to UDH, except that we also gave them a typical pond cross-section that we now provide for you, as well. Additional information on construction details

is also included, as copied from our bid contract specifications for upper site development.

Stipulation - 2-19-82-9SK (UMC 817.47)

A plan must be submitted to the Division and approved at least 60 days prior to construction; the applicant must provide:

Detailed design specifications for the constructed spillway on pond 016. Include the design for point of discharge.

- The time constraint is unworkable. A 60 day wait to construct after approval is pointless! If you really mean that you need 60 days to review design specifications, this is also unacceptable. Nobody needs 60 days to review the data on a pond serving a 1.05 acre drainage area. We already have construction approval from UDH (as of 1/25/82). Since this pond (016) is intended for the topsoil area, you are effectively shutting us down for another 60 days. You see, if we cannot build this pond for 60 days, then we cannot pick up topsoil; if we do not pick up topsoil, we can do nothing else on the area.

This requirement is overly burdensome.

- Design specifications, already submitted, included a minimum diameter, 18" CMP to pass the 5 year event. This information was provided in Attachments 7 and 15 of the ACR Response. A typical discharge structure detail is also included on the drainage details sheet.

Stipulation - 2-19-82-10SK (UMC 817.47)

The applicant must provide:

Designs indicating stormwater routing for upper and lower pad through oil separators.

- See 7SK in part.

The drainage details in Attachment 7 of the ACR Response shows routing through the oil separator.

Stipulation - 2-19-82-11SK (UMC 817.54)

The applicant must describe adjacent water uses which may be impacted by the shaft excavation and determine a means for supplying water if interruption, contamination or diminution occurs.

- There are no adjacent water uses which could be impacted by shaft construction. All local water uses are related to water sources which are tapped at points far above Crandall Canyon; i.e., Scofield Reservoir, which is transmitted via Price River and the Price City springs, which are piped from their mountain source to Price City Water Plant.

This stipulation should not be part of the Crandall Canyon permit.

Stipulation - 2-19-82-12SK (UMC 817.56)

Price River Coal Company must submit an adequate discussion on measures to renovate the permanent Crandall Creek stream channel diversion at the time of final reclamation.

- The stream channel diversion is permanent. Reclamation is discussed in Attachment 10 of the 7/81 ACR Response. The referenced discussion was developed after an intensive telephone discussion with Wayne Hedburg of DOGM about reclamation requirement on ephemeral channels in July of 1981.

Stipulation - 2-19-82-13MR (UMC 817.89)

The applicant must obtain a letter from appropriate landfill authorities showing approval to dispose of trash at the landfill.

- There is no requirement in this regulation for written permission from landfill authorities. As stated in the ACR Response, we contract with a licensed garbage hauler who must have dumping permission to be licensed. We have used this method for at least 5 years. Our garbage hauler is Carbon-Emery Disposal Company. We sign a brief contract at the beginning of each year which requires that they pick up on schedule or as needed and haul to an approved landfill.

Stipulation - 2-19-82-14MR (UMC 817.89)

Is the area where the oil and etc., stored in tanks covered by the application's SSCP plan?

- That is SPCC (Spill Prevention Control and Countermeasure) Plan, we presume? We do not yet have an SPCC Plan for a tank that does not yet exist. When it does, we will, of course, have an SPCC Plan for it.

Stipulation - 2-19-82-15MR (UMC 817.99)

Should a slide occur within the permit area, the applicant would be required to notify the Division and comply with any remedial measures required by the Division.

- We can commit to this stipulation. However, if our facility is damaged, we will proceed to make immediate repairs and clean it up during the probable 2-3 month time period needed for you to develop some remedial measures.

Stipulation - 2-19-82-16MR (UMC 817.131)

The applicant must address Section 817.131 and comply with this regulation should temporary abandonment of the Crandall Canyon facility be initiated.

- We will comply with the requirements of this regulation in the event of a temporary abandonment.

Stipulation - 2-19-82-17MR (UMC 817.150-.176)

The applicant must submit a letter from the Utah Division of Transportation stating their approval of plans for the new intersection at Utah State Route 6 and the Crandall Canyon access road.

- We could not possibly modify a State Road without UDOT approval. We will be glad to give you a copy, but not as a stipulation to our Crandall permit.

PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

April 7, 1982

*Delivered  
by Land*

~~CERTIFIED MAIL NO. 3968392~~  
Return Receipt Requested

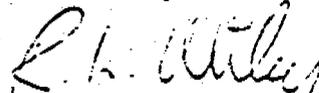
Mr. Tom Tetting  
Engineering Geologist  
Utah State Department of Natural Resources  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Re: Price River Coal Company's Response to DOGM Technical  
Analysis and Stipulated Permit of 2/19/82 for Completion  
of the Crandall Canyon Surface Facility

Dear Mr. Tetting:

I hope that our detailed responses and commitments, here enclosed,  
are satisfactory. Final DOGM approval is, we hope, forthcoming.

Sincerely,



Robert L. Wiley  
Environmental Engineer

RLW:ga

Enclosure

PRCC RESPONSE TO DOGM TECHNICAL ANALYSIS  
AND STIPULATED PERMIT OF 2/19/82 FOR  
COMPLETION OF THE CRANDALL CANYON  
SURFACE FACILITY

The following comments and commitments are provided to each of the DOGM stipulations so that approval may be issued to complete the Crandall project. These responses have been developed by the Price River Coal Company management and engineering staff after consultation and negotiation with the following DOGM personnel: J. Feight, R. Daniels, J. Smith, L. Kunzler, S. Keefer, E. Hooper.

Stipulation - 2-19-82-1TT (UMC 817.11)

*The applicant must submit a statement to the Division to the effect that all signs; identification, perimeter and otherwise, have been installed and conform specifically to the 817.11 regulations.*

- All signs and markers are installed in Crandall Canyon. Perimeter markers are of lathe and flag type construction. We hope this is acceptable during the construction phase.

Stipulation - 2-19-82-2TT (UMC 817.13-.15)

*The applicant should submit a statement to the Division that all exploration holes and monitoring wells will be or have been abandoned in accordance with UMC 817.13-.15. (Although never specifically mentioned, the applicant is assumed to be aware of the minimum State and U. S. Geological Survey requirements.)*

- Any holes or wells drilled after August of 1977 have been abandoned in accordance with UMC 817.13-.15. Holes drilled and abandoned prior to that date were handled in accordance with USGS requirements.

Stipulation - 2-19-82-3EH (UMC 817.22)

*The applicant must indicate the depth and volume of soil to be removed from each area of construction. These figures are needed to ensure enough soil material is available to provide the six inch depth of resoiling proposed by the applicant.*

- We feel that topsoil can be removed to a depth of at least six inches in all areas shown to be disturbed on Exhibits 4 and 5, and on the leachfield plans, with the exception of the access road to the site and the upgrading of the access road to the leachfield. We have already stated we will pick up all topsoil available. Where more than six inches of unconsolidated potential growth medium exists (as found during construction), we will collect this material and transport

it off site to either Castle Gate or Willow Creek to be stockpiled and used as non-toxic material for covering of refuse areas or as resoiling materials after satisfactorily completing the requirements of 817.22(e).

Stipulation - 2-19-82-4EH (UMC 817.22)

*The applicant must indicate the equipment and methods to be employed in removal from insitu and transporting of topsoil to storage locations.*

Stipulation - 2-19-82-6EH (UMC 817.24)

*The applicant must provide the equipment and methods employed to ensure that the requirements set forth under UMC 817.24 are achieved.*

- Topsoil handling will be accomplished using earth moving equipment most suited to the job, considering the physical limitations of the site.

Stipulation 2-19-82-5EH (UMC 817.23)

*The applicant must address the methods of erosion control used to ensure topsoil stockpile protection prior to plant establishment.*

- A berm is shown on Exhibit 5 encircling the topsoil pile. We have previously stated that the topsoil will be mulched and seeded once the topsoil is in place.

Stipulation - 2-19-82-7SK (UMC 817.45)

*If an NPDES permit is not required, then the operator shall carry out storm discharge monitoring from the two oil separators. Data shall be gathered at least once per 90 day period (assuming an occurrence of runoff). An analysis of the first flush should be carried out with at least one more discharge sample obtained 10 minutes later. Those parameters included in the impact monitoring program shall be applied to this analysis.*

- We intend only to use one oil separator. It appears that two were shown on Exhibit 5. This was a minor error. Please note that ACR Response, Attachment 7, discusses only one oil separator for the maintenance shop. The attendant illustration sheet, "Crandall Canyon - Drainage Details", shows the routing through the only oil separator intended. Additionally, further information provided to S. McNeal of Utah Department of Health, Water Quality Section, on 10/27/81, included a short discussion of the single oil separator. This communique was transmitted to S. Keefer of DOGM, via certified mail, on the same day.

Effluent characteristics analyzed shall be those required by our NPDES permit and for as long as we operate under such a permit. The oil separator and other water handling structures have been approved for construction by UDH as of 1/25/82.

We will commit to a separate monitoring program for parking lot and oil separator storm runoff for a try out period of one year, four times per year. The monitoring period will begin when the final site is completed. A final site surface configuration map is being prepared and will be available to you within the 60 day specified limit.

Stipulation - 2-19-82-8SK (UMC 817.46)

*The applicant must submit detailed design specifications addressing UMC 817.46(j-u), as applicable, to assure the stable construction and operation of Pond 016.*

Stipulation - 2-19-82-9SK (UMC 817.47)

*A plan must be submitted to the Division and approved at least 60 days prior to construction; the applicant must provide:*

*Detailed design specifications for the constructed spillway on Pond 016. Include the design for point of discharge.*

- We will remove the discharge pipe, delete the numerical designation of 016 from our NPDES permit and construct a combination berm and excavated settlement/evaporation basin at the location of the originally proposed topsoil pond.

Stipulation - 2-19-82-10SK (UMC 817.47)

*The applicant must provide:*

*Designs indicating stormwater routing for upper and lower pad through oil separators.*

- This information will be included on the final site surface configuration mapping mentioned in SK-7 above.

The additional flow/design information requested by S.K. on 4/5/82, concerning the oil separator, will be provided within the stated time period.

Stipulation - 2-19-82-11SK (UMC 817.54)

*The applicant must describe adjacent water uses which may be impacted by the shaft excavation and determine a means for supplying water if interruption, contamination or diminution occurs.*

- There are no adjacent water uses which could be impacted by shaft construction. All local water uses are related to water sources which are tapped at points far above Crandall Canyon; i.e., Scofield Reservoir, which is transmitted via Price River and the Price City springs, which are piped from their mountain source to Price City Water Plant.

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*Price River Coal Company must submit an adequate discussion on measures to renovate the permanent Crandall Creek stream channel diversion at the time of final reclamation.*

- The stream channel diversion is permanent. Reclamation is discussed in Attachment 10 of the 7/81 ACR Response. The referenced discussion was developed after an intensive telephone discussion with Wayne Hedburg of DOGM about reclamation requirement on ephemeral channels in July of 1981.

See Exhibit 9 showing reclamation configuration. Any remaining structures (culverts, etc.) will be put in good order as part of the reclamation effort.

Stipulation - 2-19-82-13MR (UMC 817.89)

*The applicant must obtain a letter from appropriate landfill authorities showing approval to dispose of trash at the landfill.*

- There is no requirement in this regulation for written permission from landfill authorities. As stated in the ACR Response, we contract with a licensed garbage hauler who must have dumping permission to be licensed. We have used this method for at least 5 years. Our garbage hauler is Carbon-Emerly Disposal Company. We sign a brief contract at the beginning of each year which requires that they pick up on schedule or as needed and haul to an approved landfill.

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*Is the area where the oil and etc., stored in tanks covered by the application's SSCP plan?*

- That is SPCC (Spill Prevention Control and Countermeasure) Plan, we presume? We do not yet have an SPCC Plan for a tank that does not yet exist. When it does, we will, of course, have an SPCC Plan for it.

Stipulation - 2-19-82-15MR (UMC 817.99)

*Should a slide occur within the permit area, the applicant would be required to notify the Division and comply with any remedial measures required by the Division.*

- We can commit to this stipulation.

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*The applicant must address Section 817.131 and comply with this regulation should temporary abandonment of the Crandall Canyon facility be initiated.*

- We will comply with the requirements of this regulation in the event of a temporary abandonment.

Stipulation - 2-19-82-17MR (UMC 817.150-.176)

*The applicant must submit a letter from the Utah Division of Transportation stating their approval of plans for the new intersection at Utah State Route 6 and the Crandall Canyon access road.*

- We could not possible modify a State Road without UDOT approval. A copy of UDOT approval for the designs for our new intersection was hand delivered to L. Kunzler on 4/5/82.

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

April 8, 1982

CERTIFIED MAIL NO. 3968394  
Return Receipt Requested

Mr. Tom Tetting  
Reclamation Geologist  
Utah State Department of Natural Resources  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Re: Excess Earth Materials from Upper Crandall  
Site and Access Road

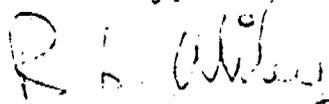
Dear Mr. Tetting:

We wish to pick up and transport up to 45,000 yds.<sup>3</sup> of earth materials from upper pad development in Crandall Canyon, and potentially 5-7,000 yds.<sup>3</sup> from the access road/Route 6 intersection, for temporary storage and future use as a refuse covering material or, if suitable, substitute resoiling medium.

Storage will be either on the preparation plant site or on the Willow Creek area near the temporary "heliport" area. Both areas have existing and functional drainage controls.

We hope that our intent to do this causes no "concerns" with your staff. If we do not hear from you, we will proceed as planned.

Sincerely,

  
Robert L. Wiley  
Environmental Engineer

RLW:ga

cc: K. B. Hutchinson  
J. Smith, DOGM

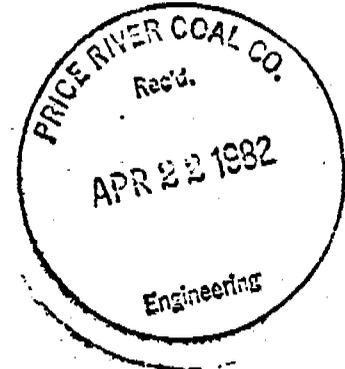


STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

April 15, 1982



Mr. Rob Wiley  
Price River Coal Company  
P.O. Box 629  
Helper, Utah 84526

RE: Price River Coal Company  
Complex Mine Plan  
ACR Review  
ACT/007/004  
Carbon County, Utah

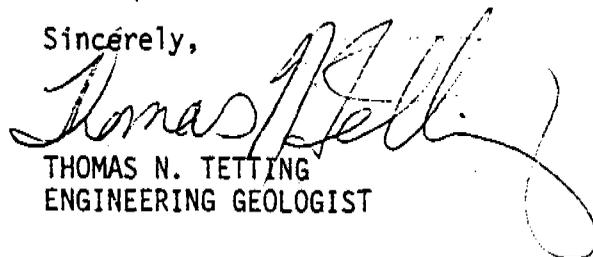
Dear Rob:

Herewith enclosed is a copy of the Apparent Completeness Review conducted by the OSM in March and April of 1981. Attached are comments by the Minerals Management Service and the Forest Service. According to the Division's current policy of review, it will prove more expeditious to receive more information from PRCC, i.e. a response to this ACR, prior to initiation of a more thorough analysis. As this analysis will be contracted to a consultant, the Division will be afforded the input during review of their work.

In addition, a proposed schedule of estimated timing for the review process is enclosed. It has been drafted after consultation with John Montgomery of OSM on April 14 and yourself on April 15. I trust we may all work to meet it if at all humanly possible.

If you have any question regarding the nature of the proceedings, please call.

Sincerely,



THOMAS N. TETTING  
ENGINEERING GEOLOGIST

Enclosure

cc: MMS, Jackson Moffitt  
OSM, John Montgomery  
BLM, Price  
F.S., Reed Christensen

TNT/tr

PROPOSED SCHEDULE OF REVIEW  
FOR THE PRICE RIVER COAL COMPANY  
COMPLEX MINE PLAN ACT/007/004

1. May 1 - June 30: Price River will respond to OSM's ACR document.
2. July 1-16: Contracted consultant will review the ACR response and denote areas of deficiency or concern.
3. July 19 - August 13: OSM and Utah will review the consultant's work and revise final ACR package developing problem areas, sending additional request back to PRCC if necessary.
4. August 16 - November 12: Consultant prepares Technical Analysis. During this time PRCC delivers final ACR request.
5. November 15 - December 17: OSM and Utah review the TA document and revise as necessary.
6. December 20 - January 21: PRCC reviews and responds to the TA document, addressing stipulations.
7. January 24 - February 28: Consultant prepares the EA and final decision package.
8. March 1 - March 15: OSM reviews EA and final decision package.
9. March 16, 1983: Document sent to the Secretary.

A time element for mailing responses and reviews has been neglected in these estimates. However, they should still prove effective in illuminating a good approximation.



United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement

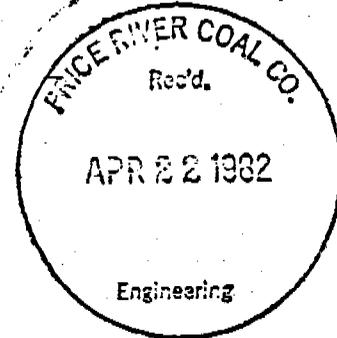
BROOKS TOWERS

1020 15TH STREET

DENVER, COLORADO 80202

OFFICE OF THE REGIONAL DIRECTOR

MAY 29 1981



Mr. James W. Smith, Jr.  
Coordinator of Mined Land Development  
Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Dear Jim:

At your request, my staff has performed an Apparent Completeness Review (ACR) of the Price River Coal Company's Mining and Reclamation Plan. The plan was received in this office on March 20, 1981. By separate letter, Price River Coal requested that we review the Crandall Canyon shaft modification apart and prior to the review of the entire mine complex. Based upon this request and your concurrence, this review was sent to your office on April 17, 1981. The following comments apply to all areas other than the Crandall Canyon surface facility.

The mining and reclamation plan for the Price River Coal complex is deficient in several respects (see Attachment No. 1). The draft deficiency list is unusually long, and these deficiencies extend to all disciplines and all disturbances except the Crandall Canyon shaft modification. As stated above, the Crandall Canyon shaft was addressed in a separate ACR; however, the information provided for this modification comes much closer to providing the needed baseline information. Baseline information is essential in order to quantify the effects of mining on the natural resources.

Last fall (September 9, 1980), Price River Coal submitted 11 volumes of a mining and reclamation plan. One copy of this plan was submitted along with the request for action on shafts in Crandall Canyon. After this modification was approved, John Nadolski of my staff called Ken Hutchinson of Price River Coal to find out if OSM needed to continue the review for the Price River Coal Company plan. This was done because only one copy of the plan was available, and a total of seven copies of the plan would be needed if this plan was to be reviewed. Mr. Nadolski was told that the plan was only submitted to provide background information for the Crandall Canyon project and should not be reviewed separately.

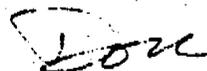
The reason for this lengthy discussion of an old plan is that the plan submitted in September is better organized and may be more complete than the plan submitted in March. I suggest that Price River Coal may be able to respond to some of the deficiencies noted in the ACR with the information that can be found in the September plan.

Price River Coal has requested a 30-year permit term. It is recommended that this request be refused because the requirements of UMC 786.25 have not been met. A prerequisite to a permit is that the application be full and complete for the specified term. If the permit term is longer than five years, then the application must discuss and be complete for the full term. The application from Price River Coal does not present any site-specific baseline information for those areas proposed to be disturbed in the future (i.e., six portal facilities and seven shaft facilities).

Comments from the U.S. Geological Survey (USGS) have been incorporated into the ACR and are also attached to this letter for your reference (see Attachment No. 2).

If you have any questions in regard to this review, please contact John Nadolski (303/937-3773) of my staff.

Sincerely,



DONALD A. CRANE

Attachment 1. ACR  
2. USGS comments  
cc: Moffitt, USGS, SLC (w/ attachments)

Apparent Completeness Review  
Price River Coal Company

782.13 Identification of Interests

The mining and reclamation plan (MRP) states (p. 2.9) that the Price River Coal Company is the principle operator and the Blackhawk Coal Company is the lessor of the Federal leases. Indiana and Michigan Electric Company and its parent company, American Electric Power Company, Incorporated, are the owners of both Price River Coal Company and Blackhawk Coal Company. The applicant does not state whether American Electric Power or Indiana and Michigan Electric has operated a surface coal mining operation in the United States within the preceding five years. If these entities have operated a surface coal mining operation within this time period, the applicant should provide documentation of the name(s) and location(s) of the surface coal mining operations, any current or pending coal mining permits, and a list of all violations related to a mining and reclamation permit. The applicant must also state whether any of these operations has had a Federal or State mining permit suspended or revoked and whether any performance bond has been forfeited.

The MSHA numbers appear to be assigned to Mines #3 and #5 (#42-00165 and 42-01202). Is this correct? Yes On page 2-18 an EPA permit is referred to as the New Peerless Mine. What mine is this and to which discharge does this apply? Are all discharge points anticipated during the life of the permit accounted for by EPA discharge permits? No

Exhibit 3-7 appears to show coal leases and on page 2-9 assignments of federal, state and county coal leases are addressed. Have the assignments of the federal and state leases been approved? Exhibit 4.2-1 shows the owners of surface and subsurface areas in the permit area. The applicant should also provide the addresses of the owners of record of all surface and subsurface areas within and contiguous to any part of the proposed permit area.

782.15 Right of Entry and Operation Information

The plan identifies eleven federal coal leases, four state leases, and a county lease. Exhibit 3 also shows several areas of fee and private coal. In addition to enumerating the leases, the applicant should describe the basis for the legal right to enter and conduct underground mining activities in terms of the type and date of execution, the specific lands and legal rights claimed.

782.17 Permit Term Information

The applicant has requested a permit term of 30 years (p. 2-14) based upon financial and diligence commitments. The applicant does not meet the requirements of 786.25 in two respects: (1) the application does not contain

sufficient information for the 30-year term, and (2) the applicant does not show that a longer term is needed to allow the applicant to obtain necessary financing of equipment and the opening of the operation. The applicant does provide information on amortization of investments, apparently through 1988, a period of about eight years (pp. 2-14 through 2-16); however, this statement does not address a need to obtain financing for equipment or opening a new mine. Section 3-6 provides an example where the applicant proposed acceptance of a general discussion with a permit condition to provide detailed plans later. Issuance of a permit for longer than five years for this situation is prohibited by Section 782.17 of the Utah underground mining code.

782.18 Personal Injury and Property Damage Insurance (p. 2-17)

Amount is greater than minimum coverage requirements; however, the applicant must specify if the General Liability Policy (#I SL-G0002SSL-3) covers both personal injury and property damage.

The applicant must provide a statement added to the certificate assuring that the policy is noncancellable without prior notice to the regulatory authority.

782.19 Identification of Other Licenses and Permits

In Chapter II, page 18, it states the following licenses and permits are currently in effect: (more pertinent ones listed)

MSHA--Roof Control Plan, Mine No. 3  
MSHA--Ventilation Plan, Mine No. 5  
USGS--Approved Mining Plan, April 27, 1977  
DOGM--Mining Plan Permit, February 1976

The specific information required by the "permits" of USGS and MSHA (i.e., these plans) are not included as a part of this submittal and must be included to have a complete mining and reclamation plan on file with the agencies involved and for approval by the Secretary. If any materials are submitted in compliance with General Coal Mining Order #1 and are considered "confidential" by that order, the material, with the exception of coal quality information, shall also be submitted to the regulatory authority in unclassified form. Please find a cross-check sheet attached (Attachment I) which should be completed with the resubmission.

The following permits are an example of other permits that need to be addressed: Utah Department of Health, Utah Industrial Commission, Utah State Engineer, and Carbon County (right-of-way permit, building permit, zoning).

With respect to the Notice, and in the opinion of the regulatory authority, it will be necessary to indicate to the public exactly when the comment period,

and the period in request for informal conference, will expire. The expiration date provided in the public notice is incorrect since it indicates that the period for request of an informal conference will expire four weeks after the first date publication, about 21 days after the initial publication. The period is to expire at least 30 days after the last date of publication (See UMC 786.11(a) and 784.14(a)). The appropriate mechanism to notify the public of close of the comment period should be discussed with the regulatory authority. Also, the applicant should provide the proof of publication in the Sun Advocate (page 2-19).

### 783.12 General Environmental Resources Information

The applicant must provide the starting and termination dates of each phase of the mining operation and the number of acres of land to be affected due both to surface mining operations as well as the area over the underground mining activities (i.e., for operation of the proposed shafts and portal areas).

#### Cultural Resources

The following deficiencies need to be corrected by the applicant in order to comply with the National Historic Preservation Act and other Federal statutes:

1. Need complete copies of individual reports for the various locations referenced in Chapter 5-2 of the mining and reclamation plan.
2. The historic remains associated with early mining industry (towns, workings, etc.) need to be evaluated by a qualified historian. (See comment (3).)

This evaluation must satisfy the requirements for, and should be in a form that may be used for, Determination of Eligibility for the National Register.

3. Areas of potential and proposed surface disturbance (facilities, portals, roads, sediment ponds, etc.) require a 100% inventory for cultural resources and the report of the inventory submitted to the regulatory authorities. Attachment II is a suggested outline for the report.
4. Most of the area in Crandall Canyon has been inventoried and has received archaeological clearance from OSM and the Utah SHPO. A copy of the inventory should be incorporated in the resubmission.
5. Potential impacts both direct and indirect in regard to the "Willow Creek" cemetery need to be addressed. No destructive activities may take place within 100 feet of the cemetery boundaries. See Comment 3.

The applicant is encouraged to work closely with the regulatory authorities as additional information is developed and provided in order to identify any areas that request "sample surveys" in areas projected to be affected by subsidence. The extent and intervals of any additional surveys shall be decided in consultation with the State Historic Preservation Officer.

#### 783.14 Geology Information

Structural contour maps for the base of each coal seam should be provided. Isopach maps of overlying strata on 250-foot intervals (Exhibit 3 does have overburden lines on 500-foot intervals). Also, isopach maps of the interburden for each coal seam are needed. Exhibit 6-1, geologic map, should include strike and dip.

A discussion of the lithologies of the Wasatch, Price River, Castlegate, Blackhawk and Mancos Formations should be included in the section on regional geology. A stratigraphic column for the above formations should be included in the text.

A detailed discussion of the lithology of the Star Point, Aberdeen and Castlegate sandstones should be provided for the mine plan area. Please make specific references to core hole data.

Exhibit 6.2 (Drill Hole Location Map) should indicate which holes have geophysical logs, lithologic logs, water level, etc., available. The drill hole logs provided at the end of Chapter 6 do not include any information on gross lithology or water levels. Drill hole logs similar to Exhibit 7, hole #MC-207, should be submitted for each drill hole used in the construction of cross sections, structural contour maps and isopach maps.

A specific description of the coal, interburden, and roof and floor of each coal seam to be mined is required, in part to identify toxic- or acid-forming materials and to identify geologic hazards. This discussion should include lithology, local fracturing, jointing, cleating, stringers and slaking.

The text in Section 3.3-1, p.1, indicates the waste fines from the prep plant will be placed underground. Please submit a plan covering this procedure, which includes approval of the plan from MSHA.

#### 784.15 Ground Water Information

The application presents only a very general description of the ground water system over the mine plan area. Ground water monitoring stations are shown on Figure 7-10 and are tabulated in Table 7-1, but the data presented are very limited (usually one or two samples). Thus, it is nearly impossible to assess the effects of mining and the efficiency of monitoring. The mine plan

indicates that water measurements (quality and quantity) were terminated in 1979. If additional data are available, the applicant should provide them. Before the effects of mining can be quantified, the geo-hydrologic system must be known. With this in mind, it is suggested that the applicant conduct and likely expand their water monitoring system in a manner designed to better define the relationship of springs to areas of recharge and to define the effects of subsidence on these springs. The monitoring system should be clearly designed around the geohydrologic system and must be designed in consultation with the regulatory authority.

Few springs (station Nos. B-22, B-32, and B-33) are monitored, and the length of monitoring for those springs is at most two samples. This may not be enough information to determine the effects of subsidence on springs. The applicant should discuss, with maps and narrative, the stratigraphic and structural relationship of these springs and other springs in the permit area. From what strata do they issue? Do the relative flow rates and water quality support the extent of recharge or are the discharges related to the fracture system? The geohydrologic information should be better defined in consultation with the regulatory authority.

Probably one of the most efficient ways of determining the effects of mining on the ground water system is to document the existing mine discharges. This includes quantity and quality of total mine discharge (where applicable), location in the mine where ground water is encountered (i.e., from the floor, roof, faulted areas), variation in flows (i.e., water flow terminates 500 feet from face, water flow increases, water flow remains constant over time), and the quantity of water encountered and areas presently flooded. The applicant should document the existing effects of mining on the ground water system and provide this information to the regulatory authority. The plan contains some estimates of discharge from the mine (p. 7-5), but, on pages 3.1-3.9 and 7-9, it is stated that no definitive studies have been completed to measure sustained flow at the mines or springs. If this uncertainty can be better defined, with existing data, it may not be necessary to collect extensive amounts of additional data.

Monitoring wells are indicated to be employed in Sowbelly Gulch (over the underground mine workings) and in Bear Canyon (away from the workings) and to show the same head in the Black Hawk formation (p. 1-8). Logs, drilling, and well completion data should be provided for these wells, along with all monitoring records.

Please note that on page 7-23, three springs and five wells are stated as being monitored while on page 7-2 it is shown that three springs and six wells are monitored. Please provide clarification. It would be most useful if all monitoring activities were discussed in one place in the text.

#### 783.16 Surface Water Information

Maps reference (Figure 7-10) have been included that show surface water drainages and monitoring locations but there is no detail whatsoever. Maps should be on a 1:250,000 scale. The map (p. 7-26) showing monitoring locations should indicate where the disturbed areas are in order that the suitability of the locations may be assessed. Longitudinal profiles for streams that are to be disturbed must be included. This includes the following streams: Hardscrabble Canyon, Sowbelly Gulch, and Willow Creek. *Page 2111*

Monitoring data needs to be updated. Sediment yield measurements must be included. Applicable water quality and use classifications of receiving waters should be addressed.

If samples are collected twice monthly (p. 7-34, 35), why is there only one data point per month for many stations? We believe it would be to the advantage of the applicant to analyze the water quality data for relationships to flow since some of the higher values appear to be related to high flows.

#### 783.18 Climatological Information

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Conclusions about site wind patterns (p. VI-1) are drawn from a 1978 U.S. Geological Survey (USGS) study, but no data from the study or mention of where the study occurred is incorporated into the submittal. The applicant should consider more specific data. Due to the ultimate size of the mine complex, the applicant should consider on-site wind monitoring to establish an accurate picture of site wind patterns to aid in planning erosion control, revegetation, and air pollution control. *B, C*

The temperature data presented on page 1 is incomplete. The applicant must include data for average monthly temperatures and temperature ranges.

The applicant should also identify the number of growing days per season at the mine area based on the last and first freeze dates. This information is required for proper design of the revegetation plan.

#### 783.19 Vegetation Information

The applicant has not provided a vegetation map of the permit area. The locations of reference areas should be included on the map. At a minimum, the map(s) need to address all areas proposed for surface disturbance. The applicant has not indicated the acres of each vegetation type (mixed Conifer, Mountain Brush, Pinyon-Juniper, etc.) which will be disturbed during the mine operation, nor has the applicant identified the vegetation types that

existed on previously-disturbed areas which will continue to be used in the mine operation. Disturbance acreages per vegetation type should be given for all operations proposed to be conducted during the 30-year permit term (including the Price, Panther, and Cordingly Canyon Mines). No mention is made of canyon bottom or riparian communities which exist or existed on some disturbance sites (i.e., the Castle Gate Preparation Plant on the Price River and the Portal No. 6 facilities on Willow Creek).

The applicant has not developed a method for evaluating post-mining revegetation success. If the reference area method is used (as is indicated on p. 5, Chapter IX of the mine plan), the reference areas should be compatible with, and provide utility for the post-mining land uses - livestock and wildlife habitat (Chapter IV, p. 1). Reference areas must closely represent the affected vegetation communities for selected parameters (production, cover, woody plant density), according to a confidence level or other statistical test for equality.

The applicant has not supplied baseline vegetation information for the affected (by surface activities) vegetation communities or for reference areas. Cover (% by species, and total cover), production, and woody plant density should be collected on all affected communities and corresponding reference areas. The baseline data should be statistically representative of the communities described. An explanation of the sampling methodology used to collect the vegetation data should be included. It would be highly desirable and is, therefore, recommended that the applicant have the regulatory authority review the proposed methods of data collection before sampling begins. If this were done, any problems existing in the methods would be resolved beforehand.

#### 783.24 Maps: General Requirements

The applicant should expand upon Exhibit 3-2 and show all roads from the various mines (present and proposed). The applicant also needs to show all public roads within the permit area and the boundaries of Price River Recreation Area.

#### 783.25 Cross Sections, Maps and Plans

The applicant must provide maps and plans depicting the location (and depth, if available) of gas and oil wells within the proposed permit area. Existing pipelines, and any powerlines (for future portals) should be identified.

The exhibits have been certified by a registered land surveyor. Work performed by a land surveyor is acceptable only if it is certified by a qualified professional engineer. Therefore, all engineering-type exhibits must be certified by a registered professional engineer.

784.11 Operation Plan: General Requirements

The application briefly discusses the mining operations to be conducted at Sowbelly Gulch (Section 3.2), Hardscrabble Canyon (Section 3.3), Castle Gate Preparation Plant (Section 3.4), Trash Canyon (Section 3.5), and Willow Creek (Section 3.6). A more detailed discussion was presented for Crandall Canyon (Section 3.7). A very preliminary presentation was made for several other shafts and portals depicted on Exhibit 3-2. The applicant must describe the construction, use, maintenance, and removal of all facilities necessary to conduct mining operations over the proposed term of the permit. Statements such as that indicating that surface facilities for the Rains Canyon Mine will be of similar size and function as the facility being constructed in Crandall Canyon (p. 3.1-15) are insufficient to satisfy the requirements of UMC 782.17. (See also 782.17.)

The applicant states (p. 3.1-27) that the rock waste from Utah Fuel No. 1 (constructed December 1977) will be deposited in accordance with MSHA standards in a nearby canyon. Page 3.5-1 states that the conveyor tunnel development (Utah Fuel No. 1) waste has been dumped along the south wall of the canyon. This apparent discrepancy should be clarified through use of map(s) showing all disturbed areas, and identifying the nature of disturbance, for all areas associated with the existing mining and reclamation operations. Please identify the period of time during which the rock wastes were and will be deposited. Also provide engineering data and design specifications used, or to be used, to contract the rock waste piles. ? ?

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784.13 Reclamation Plan: General Requirements

Bonding

The applicant discusses under Section 3 that surface facilities will be removed, shafts and other openings will be sealed, access and haul roads will be reseeded. Cost information is provided in Tables 3.2-4, 3.3-1, 3.4-1, 3.5-3, etc.

- a. Please provide clear description of the procedures used to calculate volumes and areas to be reclaimed. The calculations should be related to maps and cross sections contained in the plan.
- b. For the Castle Gate Preparation Plant, provide cost estimate for building disassembly and removal. We cannot accept "salvage" as the cost because the regulatory authority may not have first lien on the buildings (p. 3.4-7, Table 3.4-1).
- c. For Trash Canyon area, no cost is given for removing the conveyor, p. 3.5-1.

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d. For Willow Creek, Panther Mine, Cordingly Canyon Mine, Rains Shaft, Sowbelly Shaft, Mathis Shaft, no cost is given for facility removal, presumably because design details for facility construction have not been finalized. The bond amount must be adjusted to include these costs if details are finalized, p. 3.6-6. Otherwise, the permit term cannot cover these facilities.

Under Section 801.16 (August 1980) subsidence monitoring equipment of mine drainage controls must be bonded for construction of ultimate removal. Is this included in the bond amount? p. 3-11

Please clearly indicate the areas of surface disturbance that are to be bonded on appropriate maps of proposed surface facilities (including roads, diversions, and sediment-erosion controls). *UP LEFT AND RIGHT*

### Revegetation

a. The applicant has not adequately addressed the following portions of the revegetation plan:

1. Mulches - type(s) to be used, method(s) of securing.
2. Seed Mixture - pure live seeding rate; how applied (broadcast or drilling). If broadcast, how will seed be covered? See b, below.
3. Use of Introduced Species - Show justification in terms of post-mining land use (UMC 817.112). Discuss how the introduced species will provide utility for livestock and wildlife. The applicant should be aware that some introduced species may compete with and prevent the establishment of other species (such as shrubs), since introduced species are bred for their competitiveness. A monoculture-like situation where one or a few species of the same life form are dominant should be prevented, since comparable diversity of the reference area would not be met and the requirements of the post-mining land use would not be met.
4. Topsoil Stockpile Stabilization Delineate the seed mixture(s) and mulch(es) that will be used for stabilization of these piles. It may be advisable to seed stockpiles with the permanent seed mixes both to provide information on success and to generate seed sources.

The applicant should relate the seed mix more closely to the community structure (trees, shrubs, forbs, grasses) of each predisturbance (or reference area) community and, therefore, should consider using more than one seed mix to address different slopes, aspects, and plant growth mediums.

### Backfilling and Grading

Backfilling and grading applicable to the portal areas is discussed in the reclamation plan of each of the mines. A post-mining contour map is necessary to enable a perspective view of how much grading is proposed or any change to natural drainage systems that have been disturbed. It also appears appropriate to provide adequate information to identify any substantial changes in surface topography that could affect erosion along surface water channels (see 783.16 also).

Portal sealing is depicted on two diagrams (pp. 3.1-50 and 3.1-51). Both of the figures are titled "Permanent Mine Portal Seal." The first figure shows two rows of cinder blocks while the second figure shows just backfilling. The applicant should clarify as to which method will be used for permanent mine portal sealing. Also, the applicant must describe, and provide appropriate drawings for, the measures used to seal and to plug the large, surface-to-coal-seam shafts.

### 784.14 Reclamation Plan: Protection of the Hydrologic Balance

Detailed maps showing sedimentation ponds and points of discharge, dams, water treatment facilities, diversions, impoundments and post-mining channels must be included. The more minor structures required later in the permit term may be represented by typicals.

Calculations were only given for the two ponds in Crandall Canyon. Quantitative engineering analyses must be reported for runoff volume, sediment volume, flow routing, detention time, depth/capacity, dewatering devices, and dam construction, and proposed limits on pollutants in discharges.

Section 3.4 on page 4 states that two areas in the Castle Gate area drain improperly and will be regraded to form retention basins. The maps, sizing calculations and time tables must include these proposed activities.

### 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams and Embankments

Typical cross sections for each impoundment or certified time schedules for submission must be included in the plan. Engineering design plans, certified by a registered professional engineer, are required for each impoundment.

### 784.20 Subsidence

The applicant should discuss the presence of any structures or renewable resources in or adjacent to the mine plan area that could be affected by subsidence. This discussion should include maps of the following:

1. any structures (buildings, roads, dams, etc.) located within the angle of draw (e.g., U.S. Highway 50/6 and State Highway 33).

2. surface water bodies, wells or springs located within the angle of draw (e.g., Price River and all perennial streams).
3. any vegetation communities considered to be renewable resource within the angle of draw.
4. any pipelines or utility lines located within the angle of draw (e.g., Mountain States Fuel's gas pipeline).

Also, cross sections indicating aquifers or saturated zones that could be affected by subsidence should be included.

The applicant should discuss the extent and the expected effects of planned subsidence.

The applicant mentions CP leaving barrier pillars and using the room and pillar mining technique to lessen the possibility of subsidence in some areas (i.e., the gas pipeline, highways). These areas should be clearly indicated on a map, and the structures or resources these methods are designed to protect should be indicated.

The applicant plans to place three monitoring monuments above each panel with at least 2000 feet between each monument. The monitoring plan would be more effective if the applicant determined beforehand which areas of the mine are most likely to have subsidence and concentrated the mine plans in these areas. Also, monuments should be placed near buildings, highways, ponds, rivers, etc., so that these areas can be monitored for subsidence.

If damage is expected to occur, then the applicant should have a plan to mitigate the effects of this damage. This plan could include restoration, rehabilitation, replacement, purchase or insurance of damaged structures or renewable resources.

Comments from the Manti-LaSal National Forest regarding the Subsidence and Hydrologic Monitoring Plan are attached to this ACR (Attachment III).

#### 784.22 Stream Channel Diversion

Detailed plans for diverting stream channels are mandatory. This includes all present stream diversions (i.e., Hardscrabble Canyon, Sowbelly Gulch, and Willow Creek). As noted previously, plans must include longitudinal profiles and bottom substrate (for intermittent and perennial streams) and should also include typical cross sections, sizing requirements with supporting calculations and maps for the proposed diversions. Also, a reclamation plan using the above information as a model is needed for each intermittent and perennial stream diversion.

Section 3.5 on page 3 states that the existing access road in Trash Canyon will continue to act as the stream channel. This is not acceptable practice as referenced in UMC 817.161.

784.18 Use of Public Roads

The applicant shall describe the measures to be used to ensure that the interest of the public and the landowner are protected by all activities within 100 feet of the right-of-way line for any public road in the permit area. A public hearing may be required in order to ensure adequate public response. These public roads include U.S. Highway 5076 and State Highway 33.

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PRE-EXISTING  
ROADS

784.19 Underground Development Waste

The general design of the Schoolhouse Canyon Refuse Pile is discussed in Section 4 and 6 of the Phase II report (by Golden Associates). However, there is no indication what actual strength parameters or method of analysis were used in the stability study. The applicant needs to provide the critical section and demonstrate that the final configuration of the refuse pile will maintain a minimum factor of safety of 1.5. Numerous information is referenced to the Phase I report. This report should also be included in this application.

The Schoolhouse Canyon Refuse pile is designed to have a capacity of 3 1/2 million tons which corresponds to a 7 1/2 year life, ending in 1984. Applicant has not discussed any other refuse disposal for the remaining life of the Price River complex operation. Plans for the entire permit term must be provided.

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The potential toxicity of the fill material has not been discussed. Please provide analysis of material as a plant growth medium.

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784.24 Transportation Facilities

Crandall Canyon is the only new road under this permit; however, to meet regulations, sufficient information must be provided for all roads to derive profiles with grades shown and a typical cut and fill section for each road.

A licensed professional engineer, not surveyor [(Chapter III, Section 3.2, letter by Gilbert R. Hurrocks, registered surveyor)] is required to certify engineering drawings and calculations demonstrating the sizing of culverts under roads are adequate for the 10-year, 24-hour precipitation (runoff) event.

784.26 Air Pollution Control Plan

The applicant has failed to provide a complete and detailed description of how air pollution will be controlled at the site. The applicant should estimate the potential emissions from each source on the project and then identify the specific control measures necessary and feasible. Due to the nature of the

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operation, the only meaningful air pollutant should be fugitive dust. The calculations and data used for emissions estimates should be included in the plan along with the estimates themselves.

The applicant states (p. 11.2-8) that the company is "beginning to evaluate the air quality regime in and around the mine plan area." If this evaluation involves a monitoring program, as it surely must, the plan should explain either the present or the planned monitoring plan but preferably both. Any existing background TSP data for the site area should also be included with the plan.

If the Utah Department of Health has issued any emissions permits for this complex, the permits and/or their applications should be included with the plan.

#### 785.19 Alluvial Valley Floor Determination

The Price River Coal Company did not adequately address the identification of alluvial valley floors (AVF's). The applicant must begin the evaluation by defining the ground and surface water adjacent areas (as defined). Within the adjacent area, Price River Coal Company should map the stream-laid deposits in areas where they are greater than 50 feet wide and 10 acres in size. For the areas meeting the above criteria, Price River Coal must proceed with the additional information required under 785.19 (surface and subirrigation water availability soils, water quality or topography) to make an alluvial valley floor determination. This information is particularly warranted because the regional practice has been to farm along the Price River, indicating it is an alluvial valley floor.

If a positive AVF decision is made, then the applicant must complete the additional studies required under 785.19(d) and demonstrate the findings that must be made under 785.19(e). If an AVF determination is made and impacts could occur as a result of mining, then a monitoring plan must also be developed according to 822.14.

#### 800.11 Bonding

The applicant must supply information as to how the company intends to provide the bond, for what period, and for what total amount.

#### 811.22 Topsoil

There is no rating of topsoil as suitable material for reclamation. The applicant should provide an evaluation and the results of the evaluation. The applicant should also indicate which soils will be disturbed at each site. This should be done in order to satisfy the performance standards for underground mining.

The applicant should provide at least one set of laboratory data for each major horizon in order to assist with the assessment of the suitability of the soils to be disturbed or regraded for stabilization. For those previously disturbed areas where no topsoil was saved, but which must be graded and revegetated, some quantitative data need to be provided to enable an assessment of any potentially major soil quantity problem that may be encountered during revegetation. It is suggested that the analyses generally include pH, EC, SAR, saturation percent, solvable Ca, Mg and Na, organic matter, phosphorous, potassium, nitrate-nitrogen, lime, texture particle size analysis. Analysis should be conducted by a qualified laboratory and results should be certified.

In the previous discussion of baseline soil data, the areas of soil to be, or which have been, disturbed should be more clearly identified. Based on this identification, the volume of topsoil removed, possibly stockpiled, or any that has already been replaced, should be identified. Segregation of any soils should be identified. Any topsoil stockpile(s) should be identified (e.g., ventilation shaft, section 3.2-2, page 3). Those areas where topsoil was not salvaged, adequate topsoil or substitute materials that have been found suitable for topsoil material, through chemical and physical analysis, must be obtained. It is suggested that these sources of topsoil material or substitute material be identified, if possible.

Section 8.3. Removal, Storage, Protection and Redistribution of Soil provides a brief discussion of topsoil handling. Additional information describing the methodology that will be used to remove, store and redistribute topsoil materials is requested. Discussion would include the handling of any interfering vegetation and equipment used to remove and redistribute topsoil materials.

#### 817.97 Protection of Fish, Wildlife and Related Environmental Values

Before the regulatory authority can make a written determination of compliance, the applicant should:

1. Provide data and analysis used to develop a site-specific baseline and wildlife management plan. Discuss techniques used.
2. Provide a list of high interest and economically important species identified by a site-specific inventory.
3. Discuss habitat preference by species as identified in the inventory.

4. Need discussion of all state and federally listed threatened and endangered species.

5. Wildlife management plan presented to company by UDWR. Company doesn't commit to any of the suggested techniques to minimize impacts. Which techniques will be used? ← *TECHNIQUES TO MINIMIZE IMPACTS*

6. Riparian areas as briefly discussed in text, with importance of those areas stressed. However, there is no mention if any will be disturbed additionally and they are not discussed as a vegetation type. Need additional discussion of riparian zones and protective measures for riparian zones to show their utility for wildlife.

### Socioeconomics

At the end of the completeness review for the Price River mining and reclamation plan, a technical-environmental assessment will be undertaken. To

comply with the National Environmental Policy Act, the regulatory authority must do a socioeconomic assessment of the potential impact of the mine on surrounding communities. Although the mine is an existing operation, the following information would be useful to our assessment:

- . The mine plan states that the work force will increase from about 400 to 1600. We request that this increase be broken out by year for the life of the mine.
- . A description of past and/or future assistance your company has made to communities impacted by your mining operation.
- . Any information you may have concerning the residential patterns of your existing workforce will be useful to our assessment.
- . The socioeconomic information provided in your mine plan is appreciated. If any other socioeconomic information that would be helpful to our assessment such as local surveys, studies, etc., please note them in your response to this ACR.

### 30 CFR 211

The following comments have been received from the U.S. Geological Survey - Conservation Division and not directly incorporated into the ACR:

1. On page 21 of Chapter I, the applicant states an attempt was made to adhere to the Division of Oil, Gas and Mining's "Permit Applications--General Guideline for Organization Format and Content" (revised November 3, 1980) during the compilation of this document. The GS regulations were not

considered and are not satisfied if this one-volume submittal is to be a complete mining and reclamation plan. The only data that can be considered for USGS-CD requirements is where there is duplication of requirements by the DOGM and USGS-CD.

2. Since the 211 regulations referred to above were not directly addressed or cross-referenced, a listing of the specific parts needing additional information will be listed below with an explanatory brief:

- a. 211.10(c)(6)(i) The nature and extent of coal deposit...including estimated recoverable reserves. — *fact*
  - b. 211.10(c)(6)(ii) The mine plan for a logical mining unit must show the mining of all reserves in a period of not more than 40 years. The complete recovery is shown as 48 years for Mine No. 5, 81 years for Price Canyon Mine, and 46 years for the Cordingly Canyon Mine.
  - c. On page 3 of Chapter III, it states "where two seams of minable coal are within 30 feet of each other, then only the more economically minable of the two seams is scheduled to be mined."
- The GS will require the top minable seam to be mined first rather than have it sterilized or destroyed. A much greater potential of a spontaneous combustion fire is possible with the upper seam broken up and becoming a part of the gob or caved material. Situations of this type must be reviewed with the GS.
- d. 211.10(c)(6)(v) A list of all major equipment. — *30 400*
  - e. 211.10(c)(6)(vii) The method of operation and measures by which the operator plans to comply...30 CFR 211.4 and 211.40 and any special terms and conditions of the lease permit or license. This can be by a narrative statement including only those items related to resource recovery.
  - f. 211.10(c)(6)(x) The measures for ensuring the maximum practicable recovery of the mineral resource. The GS must review and approve any plans to leave or abandon coal.
  - g. 211.10(c)(6)(xiv) Plans for protecting oil, gas and water wells including oil, gas, or water resources encountered underground.
  - h. 211.10(c)(6)(xv) Any justification for not recovering any coal deposits that may be detrimentally affected in terms of future recovery by the development operations proposed.

- i. The complete plans approved by Mine Health and Safety Administration for Roof Control and Ventilation System.

The mine plan should also contain a cross reference which designates those sections and pages which contain the 30 CFR 211 requirements.

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## United States Department of the Interior

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## GEOLOGICAL SURVEY

Office of the District Mining Supervisor  
 Conservation Division  
 2040 Administration Building  
 1745 West 1700 South  
 Salt Lake City, Utah 84104

April 24, 1981

## Memorandum

To: Regional Director, OSM, Denver

From: District Mining Supervisor, USGS-CD,  
 Salt Lake City, Utah

Subject: Price River Coal Company

By letter dated March 25, 1981, you forwarded to this office (received March 27, 1981) an unwieldy volume (approx. 7 inches thick) of the subject mining and reclamation plan. This submittal has been reviewed for completeness and technical adequacy pursuant to the cooperative agreement between our offices and for conformance with regulations 30 CFR 211.10 (c) dated May 17, 1976, as amended August 22, 1978. The following are our comments:

1. On page 21 of Chapter I the submittee states an attempt was made to adhere to the Division of Oil, Gas, and Mining's "Permit Applications--General Guideline for Organization Format and Content" (revised November 3, 1980) during the compilation of this document. The GS regulations were not considered and are not satisfied if this one-volume submittal is to be a complete mining and reclamation plan. The only data that can be considered for USGS-CD requirements is where there is duplication of requirements by the DOGM and USGS-CD.

2. In chapter II on page 18 it states the following licenses and permits are currently in effect: (pertinent ones listed)

MSHA--Roof Control Plan, Mine No. 3  
 MSHA--Ventilation Plan, Mine No. 5  
 USGS--Approved Mining Plan, April 27, 1977  
 DOGM--Mining Plan Permit, February, 1976

Information required by the "permits" of USGS & MSHA are not included as a part of this submittal and must be included to have a complete mining and reclamation plan on file with the agencies involved and for approval by the Secretary.

3. Since the 211 regulations referred to above were not directly addressed or cross referenced a listing of the specific parts needing additional information will be listed below with an explanatory brief:

(a) 211.10 (c)(2) Description of geologic conditions...Shall include, as a minimum, potential geologic hazards; and a description of the structural features of the coal and overlying strata, including faults, cleats, joints, and fractures.

(b) 211.10 (c)(6)(i) The nature and extent of coal deposit...including estimated recoverable reserves.

