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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 31, 1984

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

Dear Mr. Wiley:

RE: Division review of Reclmation Plan for Goose Island, Price River Complex, ACT/007/004, Folder No. 2 and 3, Carbon County, Utah

The Division has completed its review of your April 24, 1984 submission regarding the reclamation of Goose Island. In this review the certain deficiencies were identified.

Please find the enclosed defeciency list which requests the submittal of addittional information, clarifications and certain commitments. A letter committing to stipulation 817.22 - (1)-TLP should be provided to avoid any delay in the approval process.

Should you have any questions, please call.

Sincerely,

Susan C. Linner

Susan C. Linner
Reclamation Biologist/
Permit Supervisor

jvb
cc: A. Klein
R. Harden
T. Portle
T. Suchoski
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Reclamation Plan Review
Price River Complex
Goose Island
ACT/007/004, Folder No. 2

August 31, 1984

UMC 817.22 Topsoil: Removal - TLP

The quality of proposed substitute topsoil must be documented. A map should be provided which depicts the sample location(s). Data presented to affirm the quality of substitute material shall be referenced to this map.

By incorporation from UMC 817.85(d) and by virtue of the OSM letter of April 24, 1984 the applicant must provide the sample and/or methods location for proposed rock waste cover. (Also see comments under UMC 817.85(d).

Describe the implements to be used for substitute topsoil removal and segregation. Include a discussion of how large boulder which will be used for riprap will be segregated.

The permanent program permit application states (3-166) 1.5 feet of rockwaste/substitute soil not one foot as in the April 18, 1984 submission. A commitment that as a minimum between 1 and 1.5 feet replacement cover will be provided must be received by the Division of Oil, Gas and Mining.

Values presented in the April 18, 1984 submission which summarize the June 2, 1982 Native Plants data are in error (transposition error for EC unrealistic value for Boron). With regard to Boron DOGM AMR program data from essentially the same materials show a maximum value of 7.7 ppm versus the NPI number of 200.4 ppm. (see table 2.1 from August 1983 D'Appolonia report to DOGM Project No. RM83-1375 "Engineering and Design of Abandoned Mine Land Reclamation, Kenilworth Project." (see attachment).

Stipulation 817.22(1)-TLP

The applicant shall supply a complete analysis of the coal processing waste to complement the existing data. This shall be accomplished within 90 days of approval of this plan.

UMC 817.24 Topsoil: Redistribution-TLP

Please provide the methods of topsoil redistribution including preparation of the underlying material, scarification, and actual redistribution, or reference the MRP where appropriate.

UMC 817.25 Topsoil: Nutrients and Amendments-TLP

Please provide a plan ensuring the application of necessary soil fertility amendments. Include the amount of amendment required, the form in which the nutrient will be applied and the means by which amendments will be provided.

UMC 817.85(c)(1-2)-JRH

Coal Processing Waste Banks; spread into layer of no more 24 inches and attain 90% maximum dry relative density.

Rob Wiley of PRC has indicated that these conditions have been addressed in the construction specifications for the Goose Island area reclamation work and are part of the bid proposal.

Provide compaction and layering requirements as they are to be implemented at the Goose Island area and provide the methods used to test and check these requirements.

UMC 817.85 Coal Processing Waste Banks: Construction Requirements-TLP

(d) The ability of the applicant to comply with UMC 817.111-.117 is related to quality of the subsoil substitute material. The data submitted (letter of April 25, 1983 and February 29, 1984 demonstates lack of toxicity but does not address the nutritive quality of such materials as related to revegetation. The applicant must provide a plan to enhance the fertility of this material and to provide all necessary fertility amendmends as per UMC 817.25. Subsoil must be fertilized independently of topsoil (e.g. in a separate operation).

UMC 817.101-.103 Backfilling and Grading: General Requirements-TLP

Provide methods of grading, compaction and/or scarification necessary to ensure stability and good materials contact.

UMC 817.101(4)(iii) Backfilling and grading General Requirements-JRH

The slope of the terrace outslope shall not exceed 1v:2h (50%).

Cross-sections provided by Price River Coal indicate slopes in some areas that exceed 1v:2h. Slopes as steep as 1v:1.73h can be found which lead to the the drainage channels. Rob Wiley of PRC has indicated that these slopes will be reduced to 1v:2h as per requirements above and so that revegetation equipment can be safely and effectively used in the area.

Provide revised sections with slopes reduced to 1v:2h.

30 CFR 77.215(h)-JRH

'Refuse Piles' shall be constructed in compacted layers not to exceed two feet.

UMC 817.171(c) Roads: Class III: Location:-JRH

Stream fords are prohibited unless they are specifically approved by the Division as temporary routes across ephemeral or intermittent streams that will not adversely affect stream sedimentation of fish, wildlife, and related environmental values. All others stream crossings shall be made using temporary bridges, culverts, and other structures designed, constructed, and maintained to meet the requirements of UMC 817.173.

PRC has requested variance on this for HCE-108; a permanent ephemeral stream crossing. This stream crossing is proposed as a ford with 6"minus cobbles located in the bottom of the channel. It was indicated by Rob Wiley that the request for the variance is based on the assumption that very little traffic will occur on the road since it is only access to a substation located on the other side of the channel. PRC has requested that the road remain permanent so that access to the upper part of Hardscrabble Canyon can be maintained for access to grazing. Also, current plans for the substation would indicate that the substation will be decommissioned in the next two or three years and access by PRC to the substation will no longer be required.

Because the stream crossing is through an ephemeral channel and there will be limited useage by the operator of the road, a ford through the channel is acceptable. Utilizing a ford in the channel will allow for the road to remain for grazing access without having to maintain a culvert or bridge structure after reclamation.

Hydrologic Evaluation of the proposed stream channel configurations and stream ford, depicted on Exhibits HCE-101,108, and 109, show that these plans are acceptable as to channel capacity and riprap sizing. No information is present regarding the need for a filter blanket. This needs to be addressed considering the expected water velocities in the restored channels.

Therefore, PRC must submit a committment within 10 days, to conduct and submit to the Division for approval, an evaluation of the need of a filter blanket and if needed the design and gradation for the filter blanket to be used. This valuation must include a textural analysis of the sub-grade materials used as fill in the proposed stream channel. Use of only natural materials (no filter cloths) will be considered for use as filter blanket materials.

PRC has also requested a temporary stream crossing on HCE-101; a temporary ephemeral stream crossing designed to pass the 10-year, 24 hour storm, using two 60" CMP's. This plan is acceptable as the two 60" CMP culverts are capable of passing approximately 200 CFS which is greater than the 10 year - 24 hour peak flow.

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TABLE 2.1

COAL AND SOIL ANALYSES

PARAMETER	UNITS	COAL			SOIL					
		TP-6 9.0'	TP-10 0.5'	SS-105	TP-3 3.0'	TP-6 11.5'	TP-11 6.0'	SS-101	SS-103	SS-104
pH		7.0	7.6	7.3	7.6	7.9	7.6	7.8	8.0	8.0
Electrical Conductivity	mmhos/cm	2.7	2.4	2.5	2.8	1.7	2.6	4.0	0.34	0.36
Calcium	meq/L	26	23	28	26	10	28	24	1.2	1.6
Magnesium	meq/L	13	10	9.9	16	8.1	7.5	32	1.4	1.4
Sodium	meq/L	1.7	1.9	0.95	2.8	1.7	1.3	13	0.21	0.42
SAR		0.45	0.47	0.22	0.81	0.57	0.31	2.5	0.18	0.34
Selenium	ppm	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Boron	ppm	7.7	7.4	2.8	1.1	3.6	4.1	1.4	0.7	0.8
Organic Matter	%	-	-	-	1.5	0.49	0.89	1.4	0.56	1.3
Lead (DTPA)	ppm	170	4.2	9.8	-	-	-	-	-	-
Nitrogen	%	-	-	-	0.06	<0.05	0.06	0.08	<0.05	0.13
Phosphorus	ppm	-	-	-	<1	2	<1	<1	<1	<1
Potassium	ppm	-	-	-	17	28	18	35	7.8	5.7
Calcium Carbonate Equivalent	%	20	13	9	12	18	15	16	18	17
Peroxide Oxidizable Sulfur	%	1.3	1.1	1.3	-	-	-	-	-	-
Acid-Base Potential, $\pm$ tons of $CaCO_3$ Equivalent/1000 tons of dry material		+159	+96	+49	-	-	-	-	-	-
Particle Size Analysis:										
Sand	%	79	59	78	11	33	20	13	28	35
Silt	%	16	30	14	56	49	56	60	54	46
Clay	%	5	11	8	33	18	24	27	18	19
Texture Classification	USDA	-	-	-	SiCL	L	SiL	SiCL	SiL	L

Sample identification; TP-6 9.0' = Test Pit Number 6 at 9 feet.
SS-105 = Surface Sample Number 105.