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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

June 1, 1990

Mr. William J. Dunn
Senior Engineer
Consolidation Coal Company
12755 Olive Boulevard
St. Louis, MO 63141

Dear Mr. Dunn:

Re: Deficiency, Amendment, New Portals, Consolidation Coal Company,
Emery Deep Mine, ACT/015/015-89(C), Folder #2, Emery County, Utah

The Division has completed review of your company's submittal received April 2, 1990. The plans were reviewed by the Division's technical staff. Please resolve the following deficiencies as outlined in the attached memos by July 13, 1990. Please submit eight (8) copies to go along with the material that was previously submitted for insertion into the Mining and Reclamation Plan. The enclosed Reclamation Agreement must also be completed and returned to the Division before approval can be given.

If you have any questions, please call Lynn Kunzler or me.

Sincerely,

A handwritten signature in cursive script that reads "Daron R. Haddock".

Daron R. Haddock
Permit Supervisor

c1
Attachments
cc: D. Bray, Emery Mine
J. Helfrich
L. Kunzler
BT46/26



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May 14, 1990

TO: Daron Haddock, Permit Supervisor

FROM: Henry Sauer, Reclamation Soils Specialist *HS*

RE: Fourth East Portal Development, Consolidation Coal Company, Emery Deep Mine, ACT/015/015-89C, Folder #2, Emery County, Utah

Synopsis

The revised Emery Deep Mine New Portal (4th East Portal[s]) Development Plan received April 2, 1990 has been reviewed. The following issues must be adequately addressed prior to permit amendment approval.

Analysis

UMC 817.22 Topsoil: Removal-(HS)

The operator's plan to salvage topsoil to a depth of six inches (page 13-100) is adequate. However, given the sporadic mixture of salvagable topsoil within each soil type (i.e., Persayo-Chipeta Complex, Castle Valley Extremely Stony, Very Fine Sandy Loam) and the plant growth limiting factors encountered at various depths (i.e., high clay percentage, high pH, high SAR) a topsoil deficiency will exist at the time of final reclamation. Therefore, the operator must indentify, for inclusion in the amendment package, the following: depth of topsoil redistribution; procedures and techniques utilized to maximize excavation and storage of suitable growth medium; methods employed to exact topsoil excavation depth; a topsoil mass balance (accompanied by as-built surveys of the constructed topsoil stockpile) indicating topsoil surplus or deficiencies; and plans to amend topsoil volume deficiencies if they should arise.

UMC 817.23 Topsoil: Storage-(HS)

The operator must commit to providing an as-built survey of the topsoil stockpile subsequent to construction.

Page 2
Memo to D. Haddock
ACT/015/015-89C
May 14, 1990

The Division recommends that the surface of the topsoil stockpile be mulched and crimped to reduce wind erosion, aid in water infiltration, and initiate microbial activity.

UMC 817.48 Hydrologic Balance: Acid- and Toxic-Forming Materials-(HS)

Drill hole FC702 at 79.5 feet to 83.4 feet sample point indicate unacceptable concentrations of Boron when compared to the Division's Guidelines for the Management of Topsoil and Overburden, Table 2. The operator must commit to leaving this material in place, properly disposing of said material (i.e. cover with four feet of suitable material) or other Division approved methods which will prevent adverse water quality effects and/or be detrimental to vegetation.

The operator states "In the event that coal wastes or materials considered acid or toxic forming or combustible are encountered," (page 13-96). Please identify the procedures and methodology employed to identify acid and/or toxic-forming materials.

Recommendations

The above-stated issues must be completely and adequately addressed prior to permit amendment approval.

djh
AT97/14-15



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May 10, 1990

TO: Darron Haddock, Permit Supervisor

FROM: Randy Harden, Sr. Reclamation Engineer *RH*

RE: 4 East Mine Access Portals Proposal, Emery Mine,
Consolidation Coal Company, ACT/015/015-89C, Folder #2,
Emery County, Utah

SUMMARY:

Consolidation Coal Company proposes to construct a new set of portals at the Emery Mine. A proposal for an amendment to the existing mining and reclamation plan was submitted to the Division on June 28, 1989. A deficiency submittal was received by the Division on February 8, 1990. A deficiency response was submitted by the operator on April 2, 1990. The following comments are made regarding deficiencies found in that proposal:

ANALYSIS:

UMC 784.11 Operation Plan: General Requirements - JRH

In accordance with part (b) of this section, the operator is required to provide for the design, construction, modification and removal of mine development waste facilities. These facilities need to be designed and certified under the requirements of the regulations under UMC 784.23(c)(2) and require the certification of a registered professional engineer.

The maps in the proposal have been certified in accordance with the requirements of this section, however, the designs proposed in the amendment for the new portal facilities are not certified in accordance with the requirements of the regulations. The operator must provide a certification statement to cover all of the general designs, and calculations provided for the proposed facilities. This certification must be made prior to approval by the Division.

Page 2

4 East Mine Access Portals Proposed
Consolidation Coal Company
ACT/015/015-89-C

UMC 800 Bonding - JRH

A cost estimate for the reclamation of the proposed facilities is included in the submittal. Based on quantities and cost information submitted by the operator and bonding calculations as determined by the Division, the amount of bond required for the addition of these facilities is \$117,000.00.

In a previous review of the new portal facilities it was stated that because the operator currently has excess bond due to the unconstructed coal processing facilities within the existing plan, no additional bond will be required by the Division at this time.

Current Bond Amount - \$3,454,443.00.

(Approximately 2/3 of the above is for the proposed preparation plant facilities)

Although sufficient bond is in place to cover the addition of the 4 East Portal Facilities, The current bond does not allow for the coverage of the new area of surface disturbance. Therefore the operator must revise the bond to include those areas.

In accordance with Division policy, changes to bonding require the submittal of a Reclamation Agreement, which incorporates the bonding and liability requirements into one document. Consolidation Coal will be required to complete and submit the attached Reclamation Agreement as required. The existing bond can be incorporated into the Reclamation Agreement with a rider including the new areas of disturbance. The surface area to be affected can be submitted for the purposes of bonding on Plate 3-1 for incorporation into the Reclamation Agreement.

RECOMMENDATIONS:

From an engineering standpoint the location and the design of the portal facilities appears adequate. Once certification for the designs and drawings are provided by the operator, the plan could be considered complete and adequate for engineering requirements.

The Reclamation Agreement incorporating the new surface disturbed areas should be provided to and approved by the Division prior to any surface disturbance at the 4 East Portal Site.

cc: B TEAM
BT17/23-24

**BONDING CALCULATIONS - EMERY DEEP MINE
4 EAST PORTAL SITE - ACT/015/015
MAY 1990 - JRH**

Note -

This revision incorporated the reclamation costs associated with the construction of the new 4 East Portal Site. Only those costs associated with the reclamation of that site are calculated here.

BOND SUMMARY:

I. SUBTOTAL DEMOLITION AND REMOVAL	\$8,915.00
II. SUBTOTAL BACKFILLING AND GRADING	\$54,802.00
III. SUBTOTAL TOPSOIL PREPARATION AND DISTRIBUTION	\$2,000.00
IV. SUBTOTAL REVEGETATION	\$18,534.35
V. SUBTOTAL INTERIM SEDIMENT CONTROL FACILITIES	\$4,260.00
SUBTOTAL OF RECLAMATION COSTS	\$88,511.35
10% MAINTENANCE AND MONITORING COSTS	\$8,851
10% CONTINGENCY AND ENGINEERING COSTS	\$8,851
SUBTOTAL IN 1990 DOLLARS	\$106,214
SUBTOTAL WITH ESCALATION @1.93%/YR FOR 5 YEARS(1995 DOLLARS) -	\$116,867
TOTAL BOND AMOUNT ROUNDED TO NEAREST \$1,000 IN 1995\$ -	\$117,000

UNIT COST REFERENCE FOR BOND ESTIMATE:

I. LABOR AND SUPERVISION COSTS (MEANS SITE WORK COST DATA - 1989)

TRADE	RATE/HR
A. FOREMAN	\$36.10
B. EQUIPMENT OPERATOR	\$32.15
C. TRUCK DRIVER	\$26.15
D. LABORER	\$25.40
E. CRANE OPERATOR	\$33.25

II. EQUIPMENT COSTS INCLUDING OPERATOR (BLUE BOOK AND MEANS)

EQUIPMENT	MONTHLY RATE*	ADJ. RATE PER HOUR	MAINT PER HOUR	OPERATOR PER HOUR	TOTAL PER HOUR
D9 DOZER CAT D9N	\$12,540.00	\$71.25	\$32.10	\$32.15	\$135.50
D8 DOZER CAT D8L	\$11,265.00	\$64.01	\$28.95	\$32.15	\$125.11
D6 DOZER CAT D6H	\$5,735.00	\$32.59	\$14.35	\$32.15	\$79.09
7YD LOADER CAT 988B	\$11,630.00	\$66.08	\$40.80	\$32.15	\$139.03
OFF-HIGHWAY TRUCK 769C	\$8,035.00	\$45.65	\$22.65	\$26.15	\$94.45
20YD SCRAPER CAT 631E	\$17,445.00	\$99.12	\$51.95	\$32.15	\$183.22
TRACTOR CASE 580K	\$2,055.00	\$11.68	\$5.95	\$32.15	\$49.78
GRADER CAT 14G	\$7,055.00	\$40.09	\$16.25	\$32.15	\$88.49
3/4 TON 4X4 PICKUP TRUCK	\$535.00	\$3.04	\$3.15	\$0.00	\$6.19
P&H OMEGA 65 CRANE	\$14,850.00	\$84.38	\$37.70	\$33.25	\$155.33
10 TON DUMP TRUCK	\$2,925.00	\$16.62	\$14.35	\$26.15	\$57.12
3YD EXCAVATOR CAT 245	\$15,210.00	\$86.42	\$43.85	\$32.15	\$162.42
TRACTOR DEERE 410C	\$2,400.00	\$13.64	\$7.25	\$32.15	\$53.04
EIMCO 915 LHD	\$5,715.00	\$32.47	\$21.15	\$32.15	\$85.77

*MONTHLY RATES USED ON ALL EQUIPMENT DUE TO SIZE OF RECLAMATION PROJECT.

III. DEMOLITION AND REMOVAL COSTS (MEANS SITE WORK COST DATA - 1989)

JOB	LABEL	COST /UNIT
MIXED STEEL/CONC./WOOD	MIX	\$0.17 /FT3
CONCRETE	CONC	\$0.22 /FT3
STEEL	STEEL	\$0.16 /FT3
PAVEMENT	PAVE	\$1.45 /FT2
WATERLINES	WATER	\$4.79 /FT
POWERLINES	POWER	\$3.62 /FT
CHAIN LINK FENCE	FENCE	\$1.22 /FT
GUARD RAIL REMOVAL	GUARD	\$4.45 /FT
DISPOSAL ON SITE	SITE	\$5.10 /YD3
DISPOSAL TO LANDFILL	FILL	\$8.00 /YD3

IV. MISCELLANEOUS RECLAMATION COSTS

ITEM	LABEL	COST /UNIT
STRAW MULCH	STRAW	\$140.00 /TON
SEED MIX	SEED	\$250.00 /ACRE
FERTILIZER	FERTILIZE	\$205.00 /TON
HYDROMULCH & TACIFIER	TACK	\$300.00 /ACRE
RIPRAP MATERIAL RANDOM - INSTALLED	RIPRAP	\$25.00 /YD3
RIPRAP MATERIAL +18" SIZE - INSTALLED	LARGERAP	\$51.00 /YD3
FILTER MATERIAL - INSTALLED	FILTER	\$25.00 /YD3
AQUALIGHT	AQUALIGHT	\$25.50 /YD3
AQUALIGHT PUMP	PUMP	\$25.00 /HOUR
SILT FENCE - INSTALLED	SILT	\$2.84 /FT
MULCHING - POWER MULCHER - INCLUDES HAY	MULCH	\$871.20 /ACRE
MULCHING - HYDROMULCHING - INCLUDES MULCH	HYDROMLCH	\$977.36 /ACRE
SEEDING - HYDROSEEDING	HYDROSEED	\$927.36 /ACRE
- TRACTOR SPREADER	BROADCAST	\$611.55 /ACRE
- PUSH SPREADER	HANDSEED	\$1,378.20 /ACRE
POLYPROPYLENE MESH - INSTALLED	MESH	\$9,631.60 /ACRE
PLASTIC NETTING - INSTALLED	NET	\$2,904.00 /ACRE
STEM PLANTINGS	STEM	\$1.00 /STEM
300 HP DOZER BACKFILLING (MEANS '90)	DOZERBF	\$0.94 /YD3

DETAILED COST ESTIMATE:

DESCRIPTION	MATERIALS	QUANTITY	UNITS	COST /UNIT	AMOUNT
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I. DEMOLITION AND REMOVAL

A. EQUIPMENT		20 TONS		\$140.00 /TON	\$2,800.00
(NO SALVAGE VALUE ALLOWED ON EQUIPMENT)					
B. STRUCTURES					
ROCK DUST BIN	MIX	30,000	FT3	\$0.17 /FT3	\$5,100.00
MISCELLANEOUS	MIX	5,000	FT3	\$0.17 /FT3	\$850.00
C. CONCRETE/PAVEMENT REMOVAL					
ROCK DUST BIN FOUNDATION CONC		750	FT3	\$0.22 /FT3	\$165.00

SUBTOTAL DEMOLITION AND REMOVAL	\$8,915.00
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II. BACKFILLING AND GRADING

A. PORTAL/HIGHWALL BACKFILLING		58300	YD3	\$0.94 /YD3	\$54,802.00
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SUBTOTAL BACKFILLING AND GRADING	\$54,802.00
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III. TOPSOIL PREPARATION AND DISTRIBUTION

A. 4 EAST PORAL AREA		LUMP SUM		\$2,000.00 LUMP SUM	\$2,000.00
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SUBTOTAL TOPSOIL PREPARATION AND DISTRIBUTION	\$2,000.00
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DESCRIPTION	MATERIALS	QUANTITY	UNITS	COST /UNIT	AMOUNT
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IV. REVEGETATION

TOTAL AREA TO BE REVEGETATE 10.00 ACRES

SEEDING	BROADCAST	10.00		\$611.55 /ACRE	\$6,115.48
MULCHING	MULCH	10.00		\$871.20 /ACRE	\$8,712.00
RESEEDING & MULCHING (25% OF AREA)		2.50		\$1,482.75 /ACRE	\$3,706.87

SUBTOTAL REVEGETATION					\$18,534.35
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DESCRIPTION	MATERIALS	QUANTITY	UNITS	COST /UNIT	AMOUNT
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V. INTERIM SEDIMENT CONTROL FACILITIES

A. SILT FENCE (ALL AREAS)	SILT	1500 FT		\$2.84 /FT	\$4,260.00
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SUBTOTAL INTERIM SEDIMENT CONTROL FACILITIES					\$4,260.00
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SUBTOTAL OF RECLAMATION COSTS					\$88,511.35
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10% MAINTENANCE AND MONITORING COSTS					\$8,851
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10% CONTINGENCY AND ENGINEERING COSTS					\$8,851
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SUBTOTAL IN 1990 DOLLARS					\$106,214
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SUBTOTAL WITH ESCALATION @ 1.93% /YR FOR 5 YEARS (1995 DOLLARS) -					\$116,867
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TOTAL BOND AMOUNT ESTIMATED ROUNDED TO THE NEAREST \$1,000 IN 1994\$ -					\$117,000
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