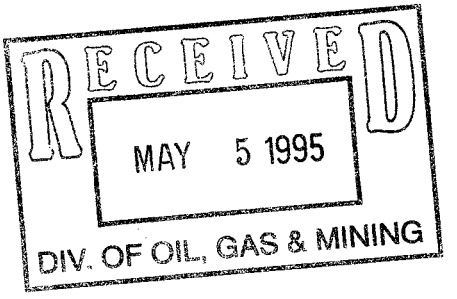
Coastal
The Energy People

May 3, 1995



Mr. Daron R. Haddock
Permit Supervisor
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: ~~Mid-Term Response~~ Review, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018-94B, Folder ~~#2~~, Carbon County, Utah

Copy Dave (all)

Dear Mr. Haddock: #2

Your letter dated April 3, 1995, contained deficiencies found in previous responses to deficiencies found during the mid-term review of the above referenced permit. Several of these deficiencies involve issues not appropriate for mid-permit term reviews according to the "DOGM Coal Regulatory Directive", dated January 12, 1994, regarding mid-term permit reviews. However, to demonstrate good faith we will provide responses to these inappropriate deficiencies at this time. We do this assuming that the Division will respond in good faith by adhering to its Directive during the review of these responses and in future mid-term permit reviews.

Some of these responses consist of revised pages of the permit. In order to facilitate your review of the revised pages, proposed deletions are marked by "strikeouts" and proposed additions are shaded. Once approval is received for the revisions the strikeout marked text will be deleted and the shading of added text will be removed resulting in "clean" revisions which will be resubmitted for actual insertion into the permit. However, Table 5.42-3 and OSM reclamation cost worksheets have been provided without strikeouts and shading for replacement in the permit.

The responses will be presented in the same order as the deficiencies in your letter.

R645-301-800 Bonding and Insurance Requirements

Deficiency 1) The demolition and disposal costs for the buildings are listed but not the volume nor the unit cost for demolition. These quantities are needed to verify the amounts. <u>The volume of the foundations for each building must be listed in the bond calculation.</u>

Response Policy #5 of the above referenced Directive states, "Evaluate the reclamation bond to ensure that coverage adequately addresses permit

Utah Fuel Company
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changes approved subsequent to permit approval or renewal (which ever is the most recent), and to ensure that the bond amount is appropriately escalated in current-year dollars." We believe this policy has been met because your letter of April 3, 1995, says, "No adjustment to the reclamation bond is needed at this time..." Since the Division has determined that the reclamation bond provides adequate coverage in current-year dollars the mid-term policy regarding bonding is addressed and this deficiency is irrelevant to the mid-term review. However, Table 5.42-3 and OSM reclamation cost calculation worksheets showing reclamation costs for current facilities have been revised and attached hereto for replacement in the permit.

Deficiency 2) The Operator expresses the volume of the concrete associated with the tanks in cubic feet but used what may be a demolition cost expressed in dollars per cubic yard. The Operator must state the units for each demolition cost and use the correct units in the calculations.

Response See response to Deficiency 1) above.

Deficiency 3) For the demolition of concrete items such as the culvert ends and concrete lined ditch the Operator uses a unit cost of $0.29 per cubic foot. That unit cost is for the demolition of concrete buildings not solid concrete structure. The Operator must use the proper unit cost for the demolition of solid concrete items such as the culvert ends and ditch.

Response See response to Deficiency 1) above.

Deficiency 4) The Operator did not list the concrete footer for the conveyor belts those items must be included. The volume of the conveyor footers, demolition and disposal costs must be included.

Response See response to Deficiency 1) above.

Deficiency 5) The Operator must include the dump (landfill or on site disposal) fees for all major items such as buildings, tanks and conveyors. The term disposal used in the pre-1995 Means editions is misleading. Disposal refers to loading the debris onto a dump truck and a 40-mile round trip haul. Landfill fees were not included because they are site dependent.

Response See response to Deficiency 1) above.

Deficiency 6) The Operator must review and correct the operator adjustment factor calculations for the grade factors.

Response See response to Deficiency 1) above.

R645-300-143 Spoil and Waste Materials

Previous Deficiency: A permanent wasterock site, currently approved according to the R645 requirements, should be provided by the the Permittee until approval of the proposed waste rock site is granted. The Permittee did not meet the requirements of D.O. 92-A, #2, as required by R645-300-143.

Response We find no requirement in the R645 Coal Regulations that require us to have a waste rock site in advance of actual need. However, we have changed pages 5-27 and 5-27a, attached for replacement, to indicate that we plan on obtaining final approval from the Division and starting construction of this facility by September 15, 1996.

R645-301-724.100 Hydrology

Previous Deficiency: Table 7.24-2 page 7-8 does not reflect Sunoco as owner of water right title 91-203. The Permittee has since changed owners and the proper water right owner should now be identified. The Permittee did not meet the requirements of D.O. 92-A, #3, as required by R645-300-143. The Permittee has not met the requirements of R645-301-724.100. (See January 8, 1992, letter from the Division of Water Rights.)

Response This requirement is based on previous requirement #3 of D.O. 92-A which references the January 8, 1992, letter from the Division of Water Rights to Daron Haddock. Requirement #3 of D.O. 92-A states, "Soldier Creek Coal Company must update the Title for water right 91-203 to Sunoco..." The January 8 letter from the Division of Water Rights states, "(Note: Title should be updated on CPC's right, 91-203, to Sunoco)" Page 1-3 of the Soldier Canyon Mine Permit states, "A corporate reorganization by Sun Coal Company, Inc. merged Sunedco Coal Co. and Sunoco Energy Development Co. into Sage Point Coal Company. As a result of the corporate merger, Sage Point Coal Co. became the sole shareholder of Soldier Creek Coal Co." In an attempt to comply with requirement #3 of D.O. 92-A, the Title to right 91-203 was updated to Sage Point Coal Co. since Sunoco was merged into Sage Point. Since the

Title to right 91-203 has been properly updated this requirement has been met.

Previous Deficiency: The following are inadequate response to the requirements of Stipulation 6.

a) The Permittee must include a map survey showing the potential recharge areas in the permit. Fracture zones identified in the mining process should be identified and referenced as potential recharge zones as required by R645-301-724.600, Survey of Renewable Resource Lands.

b) The LOM area when used should be used consistently throughout the plan; see pages 7-25 and 7-34. Provide consistent representative information for the estimated groundwater storage and recharge in LOM area and Hydrogeologic basins.

c) The monitoring "assessment", to take place throughout the year during the mining process, was not described as to the degree of the assessment; i.e., what parameters will be monitored/described this proposal does not meet the requirements of R645-301-731.210 and R645-301-730.

d) The following potential hydrologic impacts are not assessed through the existing in-mine monitoring plan and therefore the Permittee does not meet the requirements of R645-301-731.211.

i. The interception of perched aquifers which issue as a spring would not be monitored through the proposed in-mine monitoring schedule. The proposed annual inventory potentially misses "unusual" in-flows if an area is closed prior to completing the inventory. A qualitative analysis to identify the source characteristic of the intercepted aquifer would be unavailable.

ii. The Permittee has not described how the proposed annual sampling plan is adequate to determine seasonal variations in-flow thus potential impacts on the hydrologic balance, including variations due to recharge functions.

iii. The Permittee has not demonstrated that flows of 50 GPM will adequately monitor for all peotential impacts as required under R645-301-731.210. The Permittee has not described how the

proposal wil meet the quality and quantity and frequency sampling requirements. The Permittee should commit to a minimum time period in which to notify the Division and other agencies of these high magnitude inflows.

The Permittee does not have a series of wells to describe the aquifer below the lowest seam to be mined. However, Spring 6 emanates from the Aberdeen tongue below the coal seams in Dugout Canyon and may describe this system. The Permittee should discuss the area of recharge to this Spring 6 using site specific information as required by R645-301-731 and R645-301-731.211. Hydrogeologic structures from drill logs, and/or relative location and flow direction may support the conclusion that this spring will not be impacted.

Response See response to deficiency below.

Previous Deficiency: The Permittee should either properly redevelop the Well 6-1 or follow the requirements for well closure as required by R645-301-731.215. Redevelopment is required for the Permittee to maintain this well as is proposed in the current mine plan. The well could provide important information through bond release to determine flooding of the mine workings.

Response The requirements of the Hydrology deficiencies have not been met because adequate data are not available at this time. The Division's analysis of these requirements recognizes this situation by stating, "On April 6, 1995, an informal meeting will be conducted between Dr. Mayo, the mine representatives and DOGM, to discuss the processes and approach to be used by Dr. Mayo to address these issues and construct the PHC." This meeting was held with the result that Dr. Mayo will continue his research, develop the PHC, and address the issues in Remaining Requirements 9. through 11. Since Dr. Mayo's research is continuing it is not possible to address these issues by May 5, 1995, as required in the April 3, 1995, letter from Daron Haddock to Rick Olsen. While Dr. Mayo's methods will not replace the traditional methods of developing a PHC we believe that they will substantialy improve the PHC and the responses to these requirements. Soldier Creek Coal Company is not trying to avoid these requirements, but is expending considerable resources and effort to develop the most meaningful and scientific responses possible. It is believed that the results of Dr. Mayo's work will be significant enough to justify the additional time needed. It is, therefore, respectfully requested that additional time be allowed for Dr.

Mayo to complete his work and to develop the PHC and responses to these requirements based on his findings.

R645-301-526 Support Facilities and Utility Installations

Previous Requirements: Information in the plan is not current and concise information as required by R645-301-121. According to discussion with the Permittee, proposed waste rock site, longwall mining, and processing plant operations identified in the current plan will not be pursued within the upcoming permit term. The Permittee should update the plan to identify the proposed dates of the Fan Portal Area, the waste rock site and the preparation plant construction per R645-301-526.113. The Permittee should update the proposed mine sequence and timing due to the change in the proposed longwall mining operations.

Response This deficiency does not fall within the Directive for mid-term permit reviews. However, we have changed pages 5-27 and 5-27a, attached, to indicate that we plan on obtaining final approval from the Division and starting construction of all proposed facilities by September 15, 1996.

If there are any questions please contact Barry Barnum (636-2669) or Keith Zobell (636-2643).

Sincerely,

For Rick Olsen
Vice President
Soldier Creek Coal Company

TABLE 5.42–3

DESCRIPTION	MATERIAL	SIZE	UNIT	COST/UNIT	AMOUNT
OFFICE	Mixture	132,000	cu. ft.	$0.23	30,360
FOUNDATIONS	Included in Warehouse				
DISPOSAL					
WAREHOUSE	Mixture	15,950	cu. ft.	$0.23	3,669
FOOTINGS		993	sq. ft.	$14.91	14,806
WALLS		1,852	sq. ft.	$7.41	13,723
FLOORS		8,059	sq. ft.	$2.78	22,404
DISPOSAL		251	cu. yd.	$6.40	1,606
OLD SHOP	Mixture	192,000	cu. ft.	$0.23	44,160
FOOTINGS	Concrete	766	sq. ft.	$14.91	11,421
WALLS	Concrete	1,828	sq. ft.	$7.41	13,545
FLOORS	Concrete	6,033	sq. ft.	$2.78	16,772
DISPOSAL		195	cu. yd.	$6.40	1,248
NEW SHOP	Mixture	45,936	cu. ft.	$0.23	10,565
FOOTINGS	Concrete	256	sq. ft.	$14.91	3,817
WALLS	Concrete	674	sq. ft.	$7.41	4,994
FLOORS	Concrete	4,110	sq. ft.	$2.78	11,426
DISPOSAL		105	cu. yd.	$6.40	672
TRAINING RM.	Mixture	17,748	cu. ft.	$0.23	4,082
FOUNDATIONS	Included in New Shop				
DISPOSAL					
AMB. GARAGE	Mixture	11,600	cu. ft.	$0.23	2,668
FOUNDATIONS	Included in New Shop				
DISPOSAL					
BATH HOUSE	Mixture	96,000	cu. ft.	$0.23	22,080
FOOTINGS	Concrete	715	sq. ft.	$14.91	10,661
WALLS	Concrete	1,590	sq. ft.	$7.41	11,782
FLOORS	Concrete	4,197	sq. ft.	$2.78	11,668
DISPOSAL		153	cu. yd.	$6.40	979
STORAGE SHED	Mixture	32,400	cu. ft.	$0.23	7,452
FOOTINGS	Concrete	431	sq. ft.	$14.91	6,426
WALLS	Concrete	4,906	sq. ft.	$7.41	36,353
FLOORS	Concrete	4,080	sq. ft.	$2.78	11,342
DISPOSAL		261	cu. yd.	$6.40	1,670
SECURITY SHACK	Mixture	512	cu. ft.	$0.23	118
STACKING TUBE	Steel	2,500	cu. ft.	$0.21	525
FOUNDATIONS	Concrete	34	cu. yd.	$95.00	3,230
DISPOSAL		34	cu.yd.	$6.40	218
CONTROL BLDG.	Mixture	1,430	cu. ft.	$0.23	329
8,000 GAL. TANK	Steel	1,070	cu. ft.	$0.21	225
FOOTINGS	Concrete	60	sq. ft.	$14.91	895
WALLS	Concrete	300	sq. ft.	$7.41	2,223
FLOORS	Concrete	200	sq. ft.	$2.78	556
DISPOSAL		17	cu. yd.	$6.40	109
4,000 GAL. TANK	Steel	535	cu. ft.	$0.21	112
FOOTINGS	Concrete	60	sq. ft.	$14.91	895

WALLS	Concrete	300	sq. ft.	$7.41	2,223
FLOORS	Concrete	200	sq. ft.	$2.78	556
DISPOSAL		17	cu. yd.	$6.40	109
1,000 GAL. TANK	Steel	134	cu. ft.	$0.21	28
FOUNDATIONS	Concrete	0	cu. yd.	$95.00	0
DISPOSAL		0	cu.yd.	$6.40	0
1,500 GAL. TANK	Steel	201	cu. ft.	$0.21	42
FOUNDATIONS	Concrete	0	cu. yd.	$95.00	0
DISPOSAL		0	cu.yd.	$6.40	0
60,000 GAL. TANK	Steel	8,022	cu. ft.	$0.21	1,685
FOUNDATIONS	Concrete	52	cu. yd.	$95.00	4,940
DISPOSAL		52	cu.yd.	$6.40	333
LOADOUT BIN	Mixture	15,000	cu. ft.	$0.23	3,450
FOOTINGS	Concrete	810	sq. ft.	$14.91	12,077
DISPOSAL		53	cu. yd.	$6.40	339
SEPTIC TANK	Steel	9,000	cu. ft.	$0.21	1,890
FAN NO. 1	Mixture	15,400	cu. ft.	$0.23	3,542
FAN NO. 2	Mixture	15,300	cu. ft.	$0.23	3,519
CRIB WALL	Concrete	120	cu. yd.	$212.00	25,440
SEWAGE PIPE	4" Steel	10,600	cu. ft.	$6.35	67,310
SUBSTATION 1	Concrete	18	cu. yd.	$212.00	3,816
DISPOSAL		18	cu. yd.	$6.40	115
SUBSTATION 2	Concrete	30	cu. yd.	$212.00	6,360
DISPOSAL		30	cu. yd.	$6.40	192
BELT CONVEYOR	Mixture	57,000	cu. ft.	$0.23	13,110
FOOTINGS	Concrete	352	sq. ft.	$14.91	5,248
DISPOSAL		37	cu. yd.	$6.40	237
PORTALS (3)	Concrete	228	cu. yd.	$212.00	48,336
PORTALS (5)	Concrete	370	cu. yd.	$212.00	78,440
CULVERT ENDS	Concrete	74	cu. yd.	$212.00	15,688
CULVERT	Steel	53,580	cu. ft.	$0.21	11,252
DITCH	Concrete	43	cu. yd.	$212.00	9,116
SMALL CULVERTS	Steel	4,700	cu. ft.	$0.21	987
PARKING LOT	Asphalt	1,865	sq. yd.	$6.60	12,309
OFFICE PARK	Asphalt	716	sq. yd.	$6.60	4,726
OLD YARD ROAD	Asphalt	2,881	sq. yd.	$6.60	19,015
NEW YARD ROAD	Asphalt	2,055	sq. yd.	$6.60	13,563
RELOCATED ROAD AND NEW PORTAL ROAD	Asphalt	4,453	sq. yd.	$6.60	29,390
FENCING	Chain Link	2,000	ft.	$2.29	4,580
POWERLINE	Wire	2,500	ft.	$4.81	12,025
ON-SITE DISPOSAL		30,563	cu. yd.	$6.40	195,603
Subtotal Demolition Cost					$953,376

Project Soldier Creek Coal

Date 25 April 1995

WORKSHEET NO. 5

PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

Rough Grade

Characterization of Dozer Used (type, size, etc.):

D9N Dozer with "U" Blade - 650 Cy/Hr.

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.):

300 LF + 5% Effective Grade, Material is fill and well blasted.

Productivity Calculations:

Operating Adjustment Factor = .75 (operator factor) × .80 (material factor) × .83 (work hour factor) × .9 (grade factor) × .94 (weight correction factor) × 1.0 (production method/blade factor) ×

.80 (visibility) × .96 (elevation) × .80 (direct drive transmission) = .26

Net Hourly Production = 650 (normal hourly production) yd^3/hr × .26 (operating adjustment factor) = 168.25 yd^3/hr

Hours Required = 90,820 (volume to be moved) yd^3 ÷ 168.25 (net hourly production) yd^3/hr = 532.82 hrs

Assume three dozers are required for 179.93 Hr./Ea.

Data Sources:

Caterpillar Perfromance Handbook; Edition 24

Project Soldier Creek Coal

Date 25 April 1995

WORKSHEET NO. 6

PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE--GRADING

Earthmoving Activity:

Spread Topsoil

Characterization of Dozer Used (type, size, etc.):

Caterpillar - D4C

Description of Dozer Use (push distance, % grade, blade effective length, operating speed, etc.):

300 L.F. + 5% Effective Grade

Productivity Calculations:

Operating Adjustment Factor = .75 (operator factor) × 1.20 (material factor) × .83 (work hour factor) × .9 (grade factor) × .94 (weight correction factor) × 1.0 (production method/blade factor)

.80 (visibility) × .88 (elevation) × .80 (direct drive transmission) = .36

Hourly Production = 2.2 (speed) mi/hr × 15.42 (eff. blade width) ft × 5280 ft/mi × 1 ac/43,560 ft^2 = 4.11 ac/hr

Net Hourly Production = 4.11 (hourly prod.) ac/hr × .36 (op. adj. factor) = 1.46 ac/hr

Hours Required = 21.82 ac ÷ 1.46 ac/hr = 14.92 hrs

Data Sources:

Caterpillar Perfromance Handbook, Edition 21

Project Soldier Creek Coal

Date 25 April 1995

WORKSHEET NO. 8

PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

Backfill Portals

Characterization of Loader Used (type, size, etc.):

915 Eimco LHD

Description of Loader Use (origin, destination, grade, haul distance, etc.):

250 L.F. 0% Grade

Productivity Calculations:

Cycle time = 1.14 (haul time (loaded)) + 1.14 (return time (empty)) + .41 (basic cycle time) = 2.71 min

Net Bucket Capacity = 6 (heaped bucket capacity) yd^3 × .8 (bucket fill factor) = 4.80 yd^3

Net Hourly Production = 4.80 yd^3 (net bucket capacity) ÷ 2.71 min (cycle time) × 50 min/hr (work hour factor) = 88.56 yd^3/hr

Hours Required = 32,778 yd^3 (volume to be moved) ÷ 88.56 yd^3/hr (net hourly production) = 370.12 hrs

Data Sources:

Project Soldier Creek Coal

Date 25 April 1995

WORKSHEET NO. 13

SUMMARY CALCULATION OF EARTHMOVING COSTS

Equipment Type	Owning and Operating Cost ($/hr) Equipment + Accessories		Labor Cost ($/hr)		Total Hrs Req'd		Total Cost ($)
DN9 Dozer (3)	[(54,010 / $17,610/Machine/Mo.^{3})	+	32.50	] x	179.93 (3)	=	71,553
D4C Dozer	[(70.00)	+	32.50	] x	14.96	=	1,529
966 E Loader	[(46)	+	32.50	] x	35.56	=	2,791
915 LHD	[(40)	+	32.50	] x	370.12	=	26,834
12 Yd Truck 6	(32.50)	+	22.15	] x	90.27	=	29,600
20 Ton Truck	[(32.00)	+	22.40	] x	4.05	=	2,711
215 D Escavator	14,813 / $5,120 Mo. x 2.89 Mo.)	+	32.50	] x	509.20	=	31,362
14G Motorgrader	[(4,200)	+	32.50	] x	2.13	=	169
	[( )	+		] x		=	
	[( )	+		] x		=	
	[( )	+		] x		=	
	[( )	+		] x		=	

Total Cost = 166,549

Equipment and Accessory Identification:

Data Sources:

Wheeler Machinery Rental Rates
W.W. Clyde, Equipment and Labor Rental Sheet

Project Soldier Creek Coal

Date 25 April 1995

WORKSHEET NO. 16

RECLAMATION BOND SUMMARY SHEET

1.	Total Facility and Structure Removal Costs	$ 953,376
2.	Total Earthmoving Costs	166,549
3.	Total Revegetation Costs	43,465
4.	Total Other Reclamation Activities Costs	85,170
5.	Subtotal: Total Direct Costs	1,249,560
6.	Mobilization and Demobilization (at 5 % of Item 5) (1% to 5% of Item 5)	62,478
7.	Contingencies (at 7 % of Item 5) (see Table 4)	87,469
8.	Engineering Redesign Fee (at 6 % of Item 5) (see Graph 1)	74,973
9.	Contractor Profit and Overhead (at 8.8 % of Item 5) (see Graph 2)	109,961
10.	Reclamation Management Fee (at 4.4 % of Item 5) (see Graph 3)	54,981
11.	GRAND TOTAL BOND AMOUNT (Sum of Items 5 through 10)	$ 1,639,422
12.	Excalation @ 2.0%/Yr. for 2 years	65,905
		1,705,327

Engineering News Record Cost Index: _____ Date: _____

Also, the mine plan is designed so that mining will not result in material damage to perennial streams or impoundments having a storage volume of 20 ac-ft or, which could result in environmental degradation or safety hazards to streams, water bodies and associated structures. Furthermore, the proposed mine plan is compatible with conservation of existing aquifers within the permit area.

5.25.30 Public Notice of Proposed Mining

Each owner of property or resident within the area above an underground mining block and adjacent area that could be theoretically affected by subsidence, even though it may not actually occur, will be notified by mail at least six months prior to mining or within that period if approved by the Division. The notification shall contain:

a. Identification of specific areas in which mining will take place.
b. Dates of underground operations that could cause subsidence and specific structures; and
c. Measure to be taken to prevent or control adverse surface effect.

5.25 Refuse Disposal Site

Since no underground mining activity has occurred or will occur beneath or in the immediate area of the site, no subsidence is anticipated at the site. Due to settlement of the refuse and elastic compression of the underlying bedrock, it expected that settlements on the order of 0.5 to 1.0 inches will occur following completion of the disposal area. Some differential settlement of the fill and redistributed topsoil and cover materials will also occur. This minimal settlement is not expected to result in any significant impacts to the site or reclaimed surface.

5.26 Mine Facilities

Central Mine Facilities

Soldier Creek Coal Company's (SC3) new surface facilities expansion and road relocation will provide the needed facilities and space to accommodate an increase in coal production and preparation for up to 3.5 million tons/year.

Surface buildings and structures that presently exist (Table 5.26-1) and those described, immediately following Table 5.26-1, will be used in connection with or to facilitate the underground coal mining activities at the Soldier Canyon Mine (SCM), located 12 miles north of Wellington, Utah. The existing and proposed facilities are shown on Exhibit 5.21-1. Construction on all proposed facilities shown in this section (5.26) will begin by September 15, 1996, and will be completed within a two year construction time frame. Any facilities not

started by this date will either be deleted from the permit or the permit will be changed to show a new construction starting date.

As depicted on Exhibit 5.21-1, the surface facilities do encroach upon the county