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# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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Salt Lake City, Utah 84180-1203
801-538-5340

July 19, 1991

Mr. Rick Olsen, President
Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501

Dear ~~Mr. Olsen~~ Rick:

Re: Revised State Permit and Decision Package, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018, Folder #2, Carbon County, Utah

Enclosed is a revised permanent program mining permit for the Soldier Canyon Mine, which includes the new surface facilities expansion and the county road relocation. Also included is a copy of the State's Decision Document for the expanded disturbed area.

Please note that for purposes of responding to the stipulations, the permit approval date is the date at the top of the first page of the revised permit, July 19, 1991. The permit will still expire on the renewed permit expiration date, February 3, 1992. Two copies of the permit are included. Please read the stipulations in Attachment A, then sign both copies and return one to the Division.

Your cooperation during the permitting process is appreciated.

Best Regards,

Dianne R. Nielson
Director

DRH/mbm
Enclosures
cc: P. Rutledge, OSM, Denver
R. Hagen, OSM, Albuquerque
S. Demczak, DOGM, PFO
"B" Team

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**UTAH DIVISION OF OIL, GAS AND MINING**
**STATE DECISION DOCUMENT AND**
**TECHNICAL ANALYSIS**

**Soldier Creek Coal Company**
**Soldier Canyon Mine**
**Surface Facilities Expansion and Road Relocation**
**ACT/007/018**
**Carbon County, Utah**

**July 19, 1991**

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# ADMINISTRATIVE OVERVIEW

**Soldier Creek Coal Company**
**Soldier Canyon Mine**
**Surface Facilities Expansion and Road Relocation**
**ACT/007/018**
**Carbon County, Utah**

**July 19, 1991**

## BACKGROUND

The Mining and Reclamation Plan (MRP) for the Soldier Canyon Mine was originally approved by the Division of Oil, Gas and Mining (DOGM) and the Office of Surface Mining Reclamation and Enforcement (OSMRE) on June 10, 1985. The approved permit area consisted of two federal coal leases, SL-051279-063188 and U-50722, encompassing 2,143.81 acres. The Bureau of Land Management (BLM) administers 590 of those acres and the remainder are privately owned.

In June of 1986 SCCC was sold to the Sun Company. A new MRP was submitted which incorporated two new state coal leases (ML-21994 and ML-22675) and portions of two other state leases (ML-42648 and ML-42649), held by affiliates of Sun Company, into the permit area. The new MRP was approved by DOGM on February 3, 1987, bringing the permitted area to a total of 4,347.99 acres. Due to the extensive additions to the permit area and submittal of a complete new MRP, a new five-year permanent program was issued with the approval.

SCCC acquired state lease ML-44365 on April 3, 1989 and requested that it be added to the permit area on April 17, 1989. The lease encompassed 557.20 acres. A revised mining permit incorporating lease ML-44365 was issued on August 9, 1991. This brought the total permit acreage to 4905.19 acres.

A topsoil/substitute topsoil storage site, consisting of an additional 4.5 acres was added to the permit area on May 28, 1991, bringing the total permit acreage to 4909.69 acres. No additional coal leases were involved.

In order to accommodate an increase in production and additional expansion at the mine site SCCC required more space. two incidental boundary changes (IBC's) had

previously been granted and were equivalent to approximately 15% of the current disturbed area. Additional disturbance would require a permit revision.

Soldier Creek Coal Company proposes to expand the surface facilities area and relocate the county road within the currently approved permit area for the Soldier Canyon Mine. This revision increases the amount of disturbed area at the mine surface facilities location but does not require a change in the permit area boundaries. The expansion of the mine surface facilites involves the relocation of approximately 1200 feet of county road located within the disturbed area boundaries. This road is designated as Utah Highway 53. The relocation of the road will be accomplished by the permittee and on completion, Carbon County will resume maintenance and operation of the public road through the permit area. Upon reclamation of the mine facilities, Utah Highway 53 will be relocated to its approximate pre-mining alignment.

The expansion will disturb approximately 6.4 acres including the two previously approved incidental boundary changes. Other changes to the mine site facilities will ultimately increase the disturbed area at the mine site from 10.3 acres to 18.5 acres. Other disturbed areas not contiguous to the mine site disturbed area include the topsoil storage site which is 2.3 acres and the sewage lagoon area which is 2.0 acres. The permittee has also eliminated 20.2 acres from a previously proposed waste rock disposal site which had not been implemented in the plan and was not disturbed by the permittee.

| **DISTURBED AREA LOCATION** | **CURRENT AREA APPROVED FOR DISTURBANCE** | **PROPOSED DISTURBED AREA ACREAGE** |
|---|---|---|
| MINE FACILITIES AREA | 10.3 ACRES | 18.5 ACRES |
| SEWAGE LAGOON AREA | 2.0 ACRES | 2.0 ACRES |
| TOPSOIL STORAGE AREA | 2.3 ACRES | 2.3 ACRES |
| PREVIOUSLY PROPOSED WASTE ROCK DISPOSAL SITE (ELIMINATED FROM THE APPROVED PLAN) | 20.2 ACRES | 0.0 ACRES |
| **TOTAL DISTURBED AREA** | **34.8 ACRES** | **22.8 ACRES** |

## ANALYSIS

The Applicant's surface expansions are planned to provide and increase the intake capacity for the ventilation network, to upgrade coal handling and transportation facilities at the mine, and to relocate the county road passing through the surface facilities.

This distubance has been calculated into the bond which is held be the Division. Soldier Creek Coal Company had revised the reclamation bond amount from $577,000 to $1,940,000 in April, 1991 in anticipation of this expansion project.

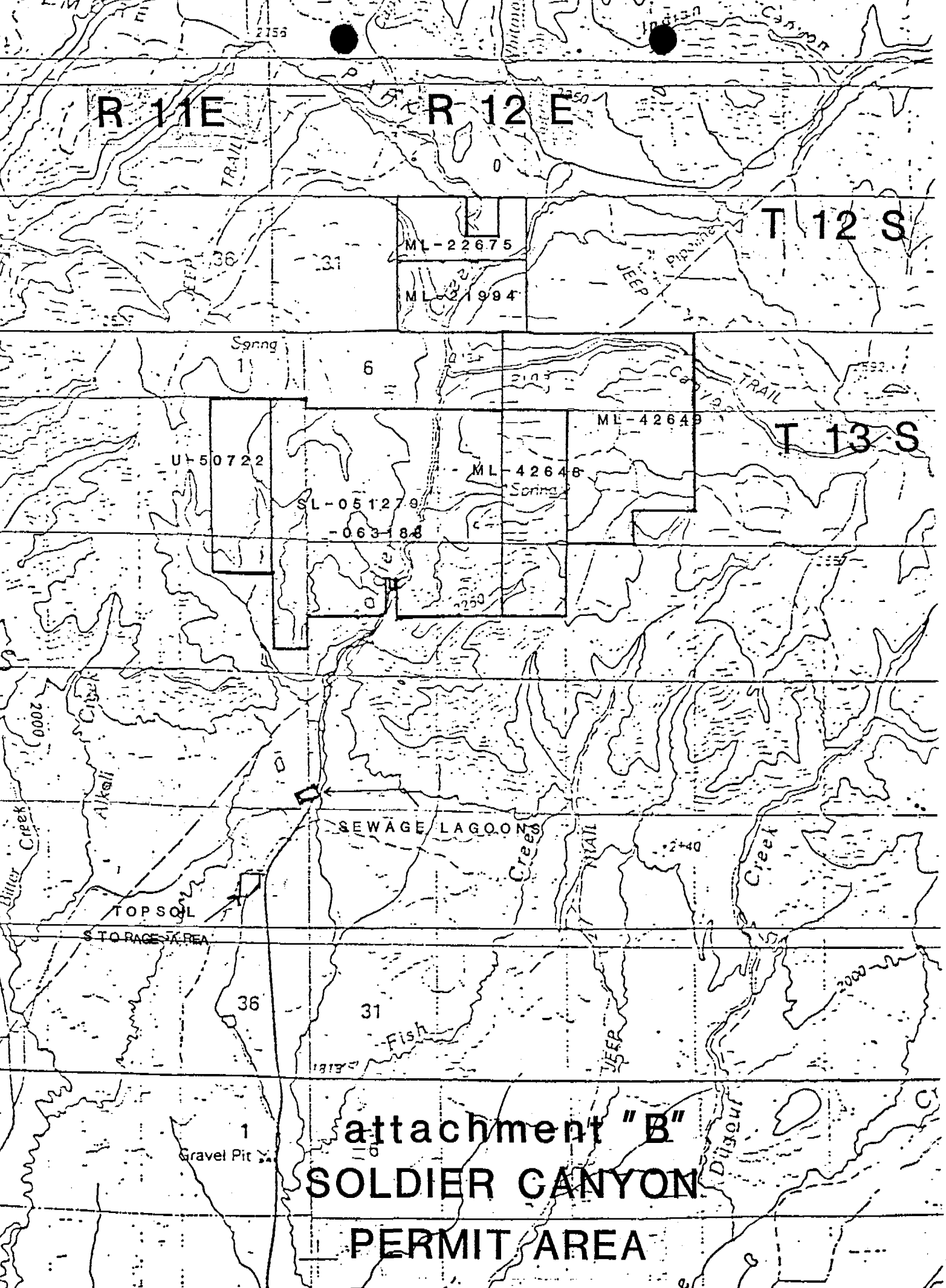
Mine structures, facilities and relocation of approximately 1200 feet of county road, associated with the planned surface expansion, are situated on federally owned property. To minimize the impact on the water quality, and facilitate the road relocation, approximately 910 feet of culvert has been installed to carry Soldier Creek.

A Cumulative Hydrologic Impact Assessment (CHIA), which included the area of the new surface disturbance, was accomplished in February 1987. Effects to the hydrologic balance resulting from the surface disturbance are expected to be minimal and most likely would only affect surface waters.

Review of SCCC's plan for the surface expansion and road relocation uncovered various deficiencies. SCCC subsequently submitted more specific and detailed plans regarding the use of the expanded surface area. Additionally, review of SCCC's plan in conjunction with the surface facilities expansion found deficiencies in the existing mining and reclamation plan. Several of these deficiencies have been corrected in the process but, some conflicting information in the existing maps and plans remain due to the expansion of the surface facilities. Stipulations regarding these problems and are attached to these findings and the Division has required that all conflicts and deficiencies found within the permit be resolved and submitted by the permittee on or before October 11, 1991 in conjunction with submittal of an updated mining and reclamation plan for permit renewal.

## RECOMMENDATION

SCCC has demonstrated that use of the expanded surface facilities area can be done in conformance with the Surface Mining Control and Reclamation Act, and the corresponding Utah Act and performance standards. No issues were raised during the review process or public comment period which have not been resolved. A 510(c) report was run on the Applicant Violator System and no problems were encountered (see attached Memos). It is therefore recommended that approval be given for the added disturbed area and road relocation.




attachment "B"
SOLDIER CANYON
PERMIT AREA

**PERMITTING CHRONOLOGY**

**Soldier Creek Coal Company**
**Soldier Canyon Mine**
**Topsoil Storage Site Addition**
**ACT/007/018**
**Carbon County, Utah**

**July 19, 1991**

| | |
|---|---|
| 1/9/91 | Soldier Creek Coal Company (SCCC) submits revision package to relocate county road and expand surface facilities at the Soldier Canyon Mine. Canyon Mine permit area. |
| 1/15/91 | DOGM determines the plan complete for publication purposes. |
| 1/17/91 thru 3/7/91 | SCCC publishes notice of a complete application for the road relocation and surface expansion revision. |
| 1/24/91 | DOGM submits copies of the road relocation revision to other agencies for their review. |
| 3/9/91 | Public comment period ends with no comments received. |
| 5/6/91 | DOGM notifies SCCC of deficiencies in the plan which must be addressed prior to final permit approval. |
| 6/10/91 | SCCC responds to deficiencies. |
| 7/19/91 | DOGM issues Decision Document and revised state permit. |

# MINE PLAN INFORMATION

Mine Name: Soldier Canyon Mine State ID: ACT/007/018

Operator: Soldier Creek Coal Company County: Carbon

Controlled By: The Sun Company Contact Person(s): J. Thomas Paluso
Telephone: (801) 637-6360 Position: Chief Engineer

New/Existing: Both Mining Method: Room and Pillar

Federal Lease No(s).: SL-051279-063188; U-50722
Legal Description(s): **SL-051279-063188:** T.13S., R.11E., Sec. 12: E1/2 E1/2, Sec. 13: NE1/4NE1/4, SE1/4NE1/4, NE1/4SE1/4, Sec. 18: Lot 2 (SW1/4NW1/4), SE1/4NW1/4T.13S.,R.12E.,Sec. 7: All, Sec.8: W1/2, Sec.17:NW1/4, Sec. 18: N1/2NE1/4, SE1/4NE1/4, NE1/4NW1/4, Lot 1 (NW1/4NW1/4); **U-50722:** T.13S.,R.11E., Sec.12: E1/2W1/2, W1/2E1/2, Sec. 13: NW1/4NE1/4, NE1/4NW1/4

State Lease No(s).: ML-21994; ML-22675; ML-42648(part); ML-42649(part); ML-44365
Legal Description(s): **ML-21994:** T.12S., R.12E., Sec.32: S1/2; **ML-22675:** T.12S., R.12E., Sec.32: NE1/4NE1/4, S1/2NE1/4, NW1/4; **ML-42648:** T.13S., R12E., Sec.8:E1/2, Sec.17: NE1/4; **ML-42649:** T.13S., R.12E., Sec.4: S1/2, Lots 1,2,3,4, Sec.5: SE1/4, Lots 1,2, Sec.9: W1/2, NE1/4, N1/2SE1/4; **ML-44635:** T.13S., R.12E., Sec.5: SW1/4, Lots 3,4, Sec.6: All

Other Leases (identify): None
Description(s):

Ownership Data:

| Surface Resources (acres): | Existing Permit Area | Proposed Permit Area | Total Life Of Mine Area |
|---|---|---|---|
| Federal | 594.69 | | 594.69 |
| State | 2755.80 | | 2755.00 |
| Private | 1560 | | 1560 |
| Other | | | |
| TOTAL | 4909.69 | | 4909.69 |

Coal Ownership (acres):

| | | | |
|---|---|---|---|
| Federal | 2111.63 | | 2111.63 |
| State | 2755.00 | | 2755.00 |
| Private | | | |
| Other | | | |
| TOTAL | 4866.63 | | 4866.63 |

| Coal Resource Data | Total Reserves (Tons) | Total Recoverable Reserves (Tons) |
|---|---|---|
| Federal | 27,155.8 | 10,637.7 |
| State | 76,917.3 | 29,447.2 |
| Private | | |
| Other | | |
| TOTAL (Life of Mine) | 104,073.1 | 40,084.9 |
| Total Percent Recoverable | 38.5% | (See attached Table) |

| Recoverable Reserve Data | Name | Thickness | (Map) | Depth |
|---|---|---|---|---|
| Seam | Sunnyside | 5' - 11' | (E031) | 250' - 2700' |
| Seam | Gilson | 1' - 18' | (E033) | 250' - 2700' |
| Seam | Rock Canyon | 6' - 12' | (E032) | 250' - 2700' |
| Seam | | | | |
| Seam | | | | |
| Seam | | | | |

Mine Life: 1976-2016
Average Annual Production: 1,300,000 Tons Percent Recovery: 34 - 40%
Date Projected Annual Rate Reached: 1990-2005
Date Production Begins: 1976 Date Production Ends: 2016
Reserves Recoverable By: (1) Surface Mining: None
(2) Underground Mining: 40,089 Tons
Reserves Lost Through Management Decisions: Unknown
Coal Market: Unknown

| Modifications that have been approved: | Date: |
|---|---|
| Addition of Leases ML-21994, ML-22675, ML-42648 (part), ML-42649 (part) | February 3, 1987 |
| Addition of Lease ML-44365 | August 8, 1989 |
| Topsoil Storage Site Addition | May 28, 1991 |

# FINDINGS

Soldier Creek Coal Company
Soldier Canyon Mine
Topsoil Storage Site Addition
ACT/007/018
Carbon County, Utah

July 19, 1991

1. The revised plan and the permit application are accurate and complete and all requirements of the Surface Mining Control and Reclamation Act (the "Act"), and the approved Utah State Program have been complied with (R614-300-133.100).

2. The applicant proposes acceptable practices for the reclamation of disturbed lands (Mining and Reclamation Plan (MRP) Vol. 9, Chapter 3.0). These practices have been shown to be effective in the short-term; there are no long-term reclamation records utilizing native species in the western United States. Nevertheless, the regulatory authority has determined that reclamation, as required by the Act, can be feasibly accomplished under the MRP.

3. The assessment of the probable cumulative impacts of all anticipated coal mining and reclamation activities in the general area on the hydrologic balance has been made by the regulatory authority. The Mining and Reclamation Plan (MRP) proposed under the application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site areas (R614-300-133.400 and UCA 40-10-11 {2}{c}) (See 1987 Cumulative Hydrologic Impact Analysis (CHIA)).

4. The proposed lands to be included within the permit area are:

   A. not included within an area designated unsuitable for underground coal mining operations (MRP, p. 2-7);

   B. not within an area under study for designated lands unsuitable for underground coal mining operations (MRP, p. 2-7);

   C. not on any lands subject to the prohibitions or limitations of 30 CFR 761.11 {a} (national parks, etc.), 761.11 {f} (public buildings, etc.) and 761.11 {g} (cemeteries) (MRP, p. 2-6);

   D. Within 100 feet of the outside right-of-way of Utah Highway 53, a public road. The applicant has received formal permission from the Carbon

County Commissioners to mine within 100 feet of the right-of-way of a public road, and, to relocate a portion of this public road passing through the permit area;

E. not within 300 feet of any occupied dwelling (MRP, p. 2-6) (R614-300-133-220).

5. The regulatory authority's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (R614-300-133.600). See attached letter from State Historic Preservation Officer (SHPO) dated February 4, 1991.

6. The applicant has the legal right to enter and complete mining activities in the surface mine facilities expansion area through a federal land use Permit issued by the Bureau of Land Management (R614-300-133.300).

7. A 510(c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither Soldier Creek Coal Company, Inc. or its parent company are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and the applicant does not control and has not controlled mining operations with demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (R614-300-133.730).

8. Underground coal mining and reclamation operations to be performed under the permit will not be inconsistent with other such operations anticipated to be performed in areas adjacent to the proposed permit area. No other mines are operational in the immediate vicinity.

9. The applicant has posted a surety bond for the Soldier Canyon in the amount of $1,940,000.00. This bond is adequate to reflect costs which would be incurred by the state to reclaim areas currently disturbed.

10. No lands designated as prime farmlands or alluvial valley floors occur on the permit area (R614-300-133.200).

11. The proposed postmining land-use of the permit area is the same as the pre-mining land use and has been approved by the regulatory authority and the surface land management agency.

12. The regulatory authority has made all specific approvals required by the Act, the Cooperative Agreement and the Federal Lands Program.

13. The proposed operation will not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habits (R614-300-133.500).

14. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (R614-300-120).

15. No existing structures will be used in conjunction with the expansion of the mine surface facilities other than those constructed in compliance with the performance standards of R614-301 and R614-302 (R614-300-133.720).

Daron R. Haddock
Permit Supervisor

Lowell P. Braxton
Associate Director, Mining

Dianne R. Nielson
Director

# TECHNICAL ANALYSIS

SOLDIER CREEK COAL COMPANY
SOLDIER CANYON MINE
ACT/007/018

## SUMMARY

Soldier Creek Coal Company has proposed to expand their surface facilities in a revision package initially received January 9, 1991, revised and resubmitted on June 10, 1991.

Soldier Creek Coal Company has proposed to upgrade the surface facilities at the Soldier Canyon Mine. The expansion proposed by Soldier Creek Coal Company (SCCC) will provide needed facilities and space to accommodate an increase in coal production and the addition of coal preparation facilities. These revisions to the mine site will increase coal production capability to 3.5 million tons per year.

Revisions to the existing surface mining operations will be contained within the currently approved permit area but will require an additional disturbed area of approximately 6.4 acres. Included in the expansion is the relocation of approximately 1235 feet of Utah Highway 53 to accommodate the expansion. Portals excavated into the Rock Canyon Seam will be utilized to accommodate the new conveyors, crusher, coal storage areas, preparation plant, loading bins, and other facilities and structures incidental to the expansion of the mine surface facilities.

## ANALYSIS

**R614-301-100. GENERAL CONTENTS**
**R614-301-114.100 RIGHT-OF-ENTRY INFORMATION.**

Operator's Proposal:

The Operator has included a right-of-way agreement from the BLM indicating that the road alignment is authorized and has included a Conditional License Right-Of-Way Agreement with Questar to protect and maintain access for maintenance of the pipeline. The right-of-way agreement submitted as Exhibit A, between BLM and Questar (Mountain Fuel) requires authorization by the BLM. The Operator sites comments made by Randy Harden in the Draft Technical Analysis dated May 6, 1991, R614-301-526.200 and sites the right of way agreement from the BLM for road relocation Illustration 10.2.1-1 from this proposed permit revision.

Randy's analysis states "...Soldier Creek Coal Company has entered into a

Conditional License Agreement with Questar to protect and maintain access for maintenance of the pipeline..." and, under the compliance subtitle Randy states "...BLM's acceptance of the permit revision and approval for the location and construction of the mining related facilities would constitute authorization in accordance with the terms of this Grant".

Compliance:

The pipeline right-of-way grant, submitted as Exhibit A, between BLM and Questar (Mountain Fuel) requires authorization by the BLM. The right-of-way road relocation amendment for Carbon County does not indicate the BLM's authorization or knowledge of the agreement between SC3 and Questar, however correspondence with Mark Mackiewicz of the BLM indicates that they concur with the license agreement.

The Operator is in compliance with this regulation.

Stipulations:

**None**

**R614-301-143. REQUIREMENTS OF THE STATE PROGRAM**

Operators Proposal:

Section 4.4-4 page 4-72 and 4-73 of the Mining and Reclamation Plan (MRP) describes the Oil Spill Prevention and Counter Measure Plan (SPCC). The MRP calls for an update of the SPCC when facilities are expanded.

Compliance:

The Division has not received a copy of a revised SPCC plan.

Stipulations:

**Stipulation R614-301-143.-(1)-PWB**

**The Division requires that the Operator devise a new SPCC plan in accordance with the 40 CFR Part 112, Subpart 112.7 within 30 days of approval.**

**R614-301-220. ENVIRONMENTAL DESCRIPTION**

Operator's Proposal:

This Amendment (ACT/007/018/91-1) builds upon previous submittals: portal expansion (89-B), stream culvert extension (90-E), topsoil storage site (90-1). Soldier Creek Coal Co. (SC3) has applied for authorization to increase the permit area by 5.6 acres. A pad area will be gained from backfilling over the newly installed culvert extension in Soldier Creek and displacing County Road 53 eastward against the streambank (adjacent to the location of the present topsoil pile).

The soil range type is Mountain Loam (oak). The slopes in this area range from 10-30%. Elevation is 6700 to 6850 feet. At streamside, the vegetation was oakbrush/grass. Where new portals are being developed, the slope was vegetated with firs, sagebrush, and oak.

The soils adjacent to the topsoil pile are deep, well-drained, sandy loams. These soils have formed from alluvial and colluvial action over a stony layer found two to six feet down.

Adjacent to these soils on the easterly bench were soils that had been previously disturbed by Questar's pipeline installation. These soils were well mixed to a depth of three feet. They had a sandy loam texture with less than 20% cobbles and gravel. The soil was used as backfill in the initial placement of culvert in Soldier Creek.

Compliance:

SC3 is in compliance with this regulation.

Stipulations:

**None.**

**R614-301-221. PRIME FARMLAND INVESTIGATION**

Operator's Proposal:

The area of disturbance is located at the mine site. The Soil Conservation

Service determined in a letter (12/5/85) that the area was not prime farmland, see Section 3.9 of the permit. The soil has good potential for topsoil recovery, but lies on a slope too steep for farming.

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None.**

**R614-301-222.100. A MAP DELINEATING DIFFERENT SOILS**

Operator's Proposal:

SC3 has submitted Exhibit 10.3.6-2 which serves to illustrate both the pre-SMCRA disturbance and the soil sampling locations. Illustration 10.6.3-1 is an SCS field survey outlining soil types within the road relocation disturbance area. A topsoil depth survey (Illustration 10.2.12-1) further elucidates the quality and availability of soil material.

Compliance:

SC3 is not in compliance with this Section because Exhibit 10.3.6-2 does not have a north arrow; does not indicate the total acreage of pre-SMCRA disturbance; does not have the legend clearly indicated; and does not have dates on soil sampling locations.

Stipulations:

**Stipulation R614-301-222.100.-(1)-PWB**

**Within 60 days of approval SC3 shall provide a revised Exhibit 10.3.6-2 indicating the total acreage of pre-SMCRA disturbance; having a clear legend; and having the dates of soil sampling indicated at the site of sampling.**

**R614-301-222.200. SOIL IDENTIFICATION**

Operator's Proposal:

The applicant has provided information on previous sampling of the soils within the disturbed area in Section 10.6.4.

Compliance:

Unfortunately this chart contains an error. The 3 soils sampled on 11/11/88 are listed as being sampled on 11/11/89.

Also, the narrative (Section 10.6.5) refers to samples #1 and #2 from the location southeast of the present location. These samples are actually referred to on field notes, lab sheets and Exhibit 10.3.6-2 as #1-1, #1-2, #2-1 and #2-2. These errors would be confusing to an unfamiliar reader and must be changed in the 1992 MRP renewal due October 11, 1991.

Stipulations:

**Stipulation R614-301-222.200.-(1)-PWB**

**In the 1992 MRP renewal, due October 11, 1991, the errors in Section 10.6.4 and in 10.6.5 must be corrected as follows; the chart in Section 10.6.4 must provide the correct date of sampling for all soil samples taken on 11/11/88; field note identification of samples taken on 11/11/88 and the identification of soil samples in the narrative (Section 10.6.5) must agree.**

**R614-301-222.300. SOIL DESCRIPTION**

Operator's Proposal:

A description was drawn from the SCS field evaluation on 10/16/89. Soil underlying the topsoil pile (Illustration 10.6.1-1) is a fine sandy loam, with a pH of 7.8 and an average buffering capacity of 5% $CaCO_3$. The soil is mollic. The A horizon extends downward to forty-one inches. Overall the A horizon has a weak subangular blocky structure. It is very friable when moist, slightly hard when dry. It is non-sticky and non-plastic when wet. There is 10-20% gravel in the soil.

Soils from the pipeline disturbance were sampled on 11/11/88. The application states that they are sandy loam, with up to 20% gravel and are 3 feet deep in places. Field notes were submitted.

Compliance:

The Operator has agreed that placement of this material in the culvert and subsequent use of the pad for temporary waste storage negated the potential of this material for use as substitute topsoil. The Operator will not use this material for substitute topsoil.

Soil to be used as topsoil and substitute topsoil is described in the topsoil amendment ACT/007/018/91-1 which was approved.

Stipulations:

**None.**

**R614-301-222.400. PRESENT AND POTENTIAL PRODUCTIVITY OF EXISTING SOILS.**

Operator's Proposal:

The area of expansion is vegetated by Douglas Fir/White Fir, Big Sagebrush/Salina Wildrye, Scrub Oak/Salina Wildrye and Mountain Brush. Three referenece areas have been delineated as follows:

1) The mountain brush reference area located on a steep, northeasterly-facing slope behind the main office complex.

2) The shrub-grass-juniper reference area in a shallow, bowl-shaped valley northeast of the formerly proposed waste rock disposal area.

3) The deciduous streambank refernce area immediately north of the mine area.

These were monitored in 1986 for woody plant density, cover, and range condition. Productivity has been measured on the reference areas at various times.

Compliance:

The Operator is not in compliance with this Section. The current MRP does not include a monitoring schedule for the reference areas. Reference areas must be monitored for range condition at least every five (5) years during the field season prior to permit renewal.

Stipulations:

**Stipulation R614-301-222.400.-(1)-PWB**

**SC3 must monitor the reference areas for range condition and submit this information with the permit renewal due October 11, 1991.**

**R614-301-223. SOIL CHARACTERIZATION**

Operator's Proposal:

The SCS identified the soil at the base of the topsoil pile as Cumulic Haplustolls. The name connotes the Order of Mollisols which are very dark-colored, base-rich soils. Ustolls are freely drained Mollisols with an ustic moisture regime. This indicates that a (limited) amount of water is available when soil temperatures are optimal for plant growth.

The "Hapl" prefix indicates that horizonation is minimal. In this case, the A horizon is subdivided three times, but the soil has not had time to develop a B horizon. The subgroup, Cumulic, indicates that fresh sediments have accumulated slowly enough to be incorporated into the mollic epipedon. And, there is no secondary accumulation of carbonates. The family is described as coarse-loamy over loamy skeletal (texture), mixed (mineralogy class), mesic (soil temperature regime.

Compliance:

The Operator has complied with this regulation.

Stipulations:

**None.**

**R614-301-224. SUBSTITUTE TOPSOIL**

Operator's Proposal:

SC3 has revised the topsoil materials balance calculations to reflect the topsoil to be salvaged and saved in reclaiming this road-relocation disturbance. The table in Section 10.2.12 shows a breakdown of areas to be covered with one foot of topsoil.

SC3 estimates that of the 6.4 additional acres to be disturbed, only 2.76 acres (maximum) will require topsoiling. At one foot depth, the topsoil required is 4,453 yards. The maximum recovery of "A" horizon material is estimated at 8,005 $yd^3$, resulting in an excess of 3,552 $yd^3$.

Compliance:

The applicant is in compliance with this regulation. The Division request that any excess topsoil is designated for use in the pre-SMCRA areas of the mine site (in the 1992 MRP renewal due October 11, 1991). Since the final amounts of topsoil hauled to the site may vary due to the segregation of rocks and the extent of the disturbance the Division requests final topsoil volumes hauled to be reported in the 1992 MRP renewal due October 11, 1991.

Stipulations:

**None.**

**R614-301-230. OPERATIONS PLAN**
**R614-301-231.100. METHODS FOR REMOVING AND STORING TOPSOIL**

Operator's Proposal:

SC3 has provided specific information in Section 10.2.9 concerning the equipment to be used to harvest and haul topsoil to the storage site. SC3 is using track and/or rubber-tired vehicles.

Compliance:

SC3 is in compliance with this regulation.

Stipulations:

**None.**

**R614-301-231.200. DEMONSTRATION OF THE SUITABILITY OF TOPSOIL SUBSTITUTES OR SUPPLEMENTS**

Operator's Proposal:

SC3 has included a narrative describing the substitute topsoil and its storage at the topsoil storage site (Sections 10.2.13 and 10.2.14).

Compliance:

Unfortunately an error that existed in DOGM's Technical Deficiency Review was copied into the revision Section 10.2.14, pg.10. The SAR value of this substitute soil is low, between 1 and 3; the sodium concentration is between 7 and 10 meq/L.

Stipulations:

**Stipulation R614-301-231.200.-(1)-PWB**

**Descriptions of the substitute soil medium in Section 10.2.14, pg.10, of the 1992 MRP renewal due October 11, 1991 must reflect accurate SAR and Sodium Concentration Values.**

**R614-301-231.300. TESTING PLAN FOR EVALUATING TOPSOIL HANDLING AND RECLAMATION PROCEDURES**

Operator's Proposal:

The soil will be sampled prior to redistribution as per Section 5.5.3 and 5.5.4 of the MRP. Sampling techniques are described in detail in these Sections. Soil nutrients and amendments will be added based on these tests.

Compliance:

SC3 is in compliance with this regulation.

Stipulations:

**None.**

**R614-301-231.400. NARRATIVE DESCRIPTION OF THE CONSTRUCTION, MODIFICATION, AND MAINTENANCE OF TOPSOIL STORAGE & HANDLING AREAS**

Operator's Proposal:

The construction and maintenance of topsoil storage and handling areas is covered in the MRP and in the recent topsoil storage amendment ACT/007/018/90-1.

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None.**

**R614-301-232. TOPSOIL AND SUBSOIL REMOVAL**

Operator's Proposal:

A summary of the topsoil and subsoil removal is located in Section 10.2.12 of the submittal. The Operator has adequately determined yardage, location and quality of material to be salvaged. Minimal salvage will be 6,760 $yd^3$. This material will be taken to the topsoil storage site as described in amendment ACT/007/018/91-1, which was approved.

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None**

**R614-301-233. TOPSOIL SUBSTITUTES AND SUPPLEMENTS**

Operator's Proposal:

The substitute topsoil material gained from the stream culvert extension will be stored at the topsoil storage site. There it will be piled separately from the topsoil and revegetated with an interim seed mix. If the interim seeding does not readily establish on the substitute topsoil material, the Division will require that test plots are designed to improve survival. The quality of the material is such that test plots will not likely be required.

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None.**

**R614-301-233.200. ANALYSIS OF TOPSOIL SUBSTITUTES** (DIVISION MAY REQUIRE OTHER ANALYSIS OR FIELD TRIALS)

Operator's Proposal:

In Section 10.6.7, SC3 proposes to use the material from the portal expansion; yard expansion and initial stream culvert installation as backfill against the highwalls during final reclamation.

Compliance:

This material should be selectively placed to be used as subsoil, spread 1' deep over the disturbed area. The 1992 renewal, due October 11, 1991 should reflect this selective use of the material. Due to the extreme values for Boron reported in the analysis of samples 1-1 and 1-2 (Illustration 10.6.5-2), this material must be resampled for Boron levels during final reclamation.

Stipulations:

**Stipulation R614-301-233.200.-(1)-PWB**

**A revised Section 10.6.7 must indicate the placement of the**

**portal soils, yard expansion soils and initial stream culvert soils at the top of the backfill, for use as subsoil, pending the results of sampling for hot $H_2O$ soluble Boron, oil and grease, and TCLP tests. This revision must be included in the 1992 permit renewal, due October 11, 1991.**

**R614-301-233.300. DEMONSTRATION OF SUITABILITY OF A TOPSOIL/OVERBURDEN MIX THROUGH FIELD TRIALS AND GREENHOUSE TESTS**

Operator's Proposal:

No field trials are anticipated for this road relocation submittal.

Compliance:

SC3 is in compliance with this requirement.

Stipulations:

**None.**

**R614-301-234. TOPSOIL STORAGE**

Operator's Proposal:

The storage of topsoil is being addressed in the separate amendment: Topsoil Storage Site (ACT/007/018/91-1).

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None**

**R614-301-242. SOIL REDISTRIBUTION**

Operator's Proposal:

The materials balance is contained in Table 10.3.8-2.

Redistributed material will be graded to a uniform thickness with minimal compaction. The subsoil will be ripped along the contour to an unspecified depth.

SC3 states that an average of one foot of either topsoil or substitute topsoil will be placed over all backfill areas, except areas designated as pre-law (SMCRA, 1977) disturbance and except where placement of topsoil would be unsafe.

Compliance:

The Operator is not in compliance with this Section.

Stipulations:

**Stipulation R614-301-242.-(1)-PWB**

**The permit renewal, due October 11, 1991, must indicate that the disturbance of 5.6 acres will receive at least one foot of cover on all slopes less than 37° during final reclamation.**

**Stipulation R614-301-242.-(2)-PWB**

**The permit renewal, due October 11, 1991, must specify the depth of ripping the backfill during final reclamation.**

**R614-301-244. RECLAMATION PLAN: SOIL REDISTRIBUTION, NUTRIENTS AND AMENDMENTS, STABILIZATION OF SOILS**

Operator's Proposal:

The reclamation plan follows Section 5.0 of the MRP. The reclamation contours are provided in Exhibit 10.3-1.

Compliance:

The Operator is in compliance.

Stipulations:

**None.**

**R614-301-244. SOIL STABILIZATION**

Operator's Proposal:

The reclaimed land will be seeded and mulched using either broadcast or drill or hydroseeding techniques depending on the slope. The soil will be raked and disced parallel to the contour.

Rills and gullies that form will be filled and graded and otherwise stabilized.

Compliance:

The Operator is not in compliance with this Section.

Stipulations:

**Stipulation R614-301-244.-(1)-PWB**

**The permit renewal, due October 11, 1991, must indicate that rills and gullies that form must be reseeded as well as filled and graded.**

**R614-301-300. BIOLOGY**

Operator's Proposal:

Revegetation of riparian areas follows riparian seed mix page 5-51 of the MRP. The reference area is the Deciduous Streambank (Sec 3.7.3 and Ex 3.7-2 of the MRP).

In Exhibit 10.3.6-1 of the proposal, the acreage of streambank to be revegetated has been increased over that described by the MRP. However, the disturbance to be reclaimed does not adequately reflect the present area of

streambank disturbance.

Revegetation of the remaining acreage will use the permanent seed mix for the central facilities (pg.5-50 of the MRP). The reference area for these areas is the Mountain Brush area (sec 3.7.3 and Ex 3.7-1 and 3.7-2 of the MRP).

Final reclamation revegetation techniques are described in Section 5-6 of the MRP. Intermediate (temporary) revegetation will be in accordance with Section 5.6.9.

The proposal states that, "...areas revegetated during construction and not re-disturbed, will not be disturbed during backfilling and grading" (pg.20). No irrigation or supplemental water will be used during or after revegetation.

Compliance:

The Operator is not in compliance with this Section. Exhibit 10.3.6-1 must include the entire length of the stream from the MW 2 discharge to the REI storage facility south of the sediment pond. Riparian areas that are not included in the disturbed area to be reclaimed have been impacted by the activity at the mine site. i.e., the area north of the REI access road and area south of the new portal access road.

These areas must be included in the reclamation along with the rest of the deciduous streambank areas, in accordance with the intention of the BLM riparian area enhancement policies. The entire length of the streambank from the REI storage yard to the MW 2 discharge point has not been incorporated into the reclamation plan. Some of these areas are not included in the disturbed area boundary, but they have been affected by operations. They do not need full reclamation treatment, i.e., soil salvaging, reseeding, and transplanting, but Soldier Creek needs to commit to correcting damage that they have done and may do in the future.

SC3 must specify areas to receive revegetation treatment during construction activity that are to remain an island of permanent reclamation. In addition, the amount of topsoil applied and source of topsoil must be outlined.

The plans include erection of 20 inch Jersey barriers along the Section of road next to the stream where problems have occurred in the past. These are designed to prevent coal fines from accumulating in the riparian area.

The only areas to receive the permanent revegetation seed mix will be the cut slopes of the county road. While this is the permanent seed mix, the revegetation is not intended to be permanent. These cut slopes will not be reclaimed permanently

until final reclamation occurs. No areas will be topsoiled and planted with the permanent revegetation seed mixture.

Stipulations:

**Stipulation R614-301-300.-(1)-PWB**

**Prior to approval, SC3 must incorporate the continuous length of the streambank from MW 2 discharge to the REI storage yard into the reclamation plan and depict the area proposed for riparian revegetation/enhancement on Ex. 10.3.6-1.**

**Stipulation R614-301-300.-(2)-PWB**

**The areas of interim seeding/reclamation efforts and areas receiving permanent revegetation treatment (prior to reclamation) must be specified on the reclamation map (Ex. 10.3.6-1) to be submitted with the permit renewal due October 11, 1991.**

**Stipulation R614-301-300.-(3)-PWB**

**The reclamation timetable chart must be revised to include seedling planting the April following seeding (p.23), due October 11, 1991.**

## R614-301-412.100. POSTMINING LAND-USE PLAN

Operator's Proposal:

The stated post-mining land use of the mine area is rangeland, wildlife habitat and recreational use.

Compliance:

The Operator is in compliance with this Section.

Stipulations:

**None.**

**R614-301-421. AIR QUALITY**

Operator's Proposal:

The air quality approval order if approved as presently written (Illustration 10.9.1-1, erroneously referred to in Section 10.9.1 as Illustration 10.9.1-2) indicates that SC3 will continuously monitor unpaved haul roads (items 6 and 7) and fugitive dust from processing facilities (items 8 through 12). Water sprays will be used to control and minimize dust.

Compliance:

The applicant is in compliance with this regulations.

Stipulations:

**None.**

**R614-301-512. CERTIFICATION.**

Operator's Proposal:

Maps and drawings have been certified by the Operator and the consultants performing the detailed design calculations for the revision.

Compliance:

Some of the drawings and designs currently provided in the plan have inadvertently not been certified. Upon resubmittal of the plans for renewal, the Operator must ensure that all drawings and designs are certified as required.

Stipulations:

**Stipulation R614-301-512.-(1)-JRH**

**The Operator shall provide certification statements and certification of designs and drawings as required by October 11, 1991.**

**R614-301-514. INSPECTIONS.**

Operator's Proposal:

No additional facilities requiring routine inspections will be added to the mine facilities as part of this permit revision.

The Operator has indicted that the primary roads associated with the construction of the new facilities will be designed and constructed under the guidance of a professional engineer. Road certifications and certified as-built drawings will be submitted to DOGM following construction of the facilities and roads.

Compliance:

The Operator is considered to be in compliance with the requirements of this Section of the regulations.

Stipulations:

**None.**

**R614-301-520. OPERATION PLAN.**

Operator's Proposal:

The Operator has submitted the permit revision for the new surface facilities expansion as a separate chapter to the existing mining and reclamation plan. Direct information relating to the facilities expansion is found as Chapter 10 of the plan.

Compliance:

The Operator is not in compliance with this Section. Although submittal of the information as a separate Section of the plan is good for identifying the information presented in the permit revision, several conflicts arise with this information in conjunction with the currently approved mining and reclamation plan. Upon approval of the permit revision, the Operator will need to update and replace other Sections of the mining and reclamation plan to eliminate conflicting information found within the current plan.

The Operator, in combination with resubmittal of the mining and reclamation plan for permit renewal, shall incorporate those changes into the mining and reclamation plan to eliminate conflicting and dated information as a result of this permit revision.

Some of the information provided and approved as amendments in Volume 8 of the mining and reclamation plan has not been included in the resubmittal of Volume 8 for the proposed revision to incorporate the road relocation into the mine facilities area. Many of the exhibits and other information required to approve those amendments have not been included in the resubmitted volume. Such information as Illustration 11.1.7-1, Stream Alteration Permit, Illustration 11.1.7-2, BLM approval for culvert installation, and other specific approvals, designs and exhibits provided for approval are not found in the permit revision proposal. These data must be maintained and incorporated into the plan in a manner so as to locate and identify this information. Replacement of Volume 8 with the revision proposal must incorporate all relevant information previously provided and approved in the plan. Only information which has been superseded by new information in regard to the road relocation should be removed or replaced in the proposal.

No table or listing of Exhibits, Illustrations, or Drawings was included in the table of contents for Volume 8. The information was not presented in a clear and concise manner so as to identify and locate this information within the proposed permit revision.

Stipulations:

**Stipulation R614-301-520.-(1)-JRH**

**In conjunction with permit renewal, the Operator shall incorporate the information included in the existing plan, the permit revision, and permit amendments in a consolidated manner and in a form and format to eliminate conflicting information within the text of the plan and on drawings of the mining and reclamation plan. The Operator shall provide a detailed table of contents identifying the exhibits, illustrations, and attachments to the plan. A detailed cross reference to the R614 Coal Mining Rules shall be included with the plan. These changes to the plan shall occur prior to the permit renewal application due October 11, 1991.**

**R614-301-521.100. CROSS SECTIONS AND MAPS.**

Operator's Proposal:

Permit and disturbed area boundary information provided on the drawings pertains only to the revised areas of the plan. The facilities expansion is shown on Exhibit 10.1.1-1. A plan view of the site showing the locations of cross sections provided by the Operator is found on Exhibit 10.3.4.

No map was provided in the proposed revision showing the location and the extent of the underground workings.

Compliance:

The Operator is not in compliance with this Section. The Operator has delineated the disturbed areas proposed by this permit revision. Updated maps have been provided as Exhibit 5.1-2 to indicate the total area disturbed or the entire disturbed area boundaries for all surface facilities. Boundary revisions still need to be made on all relevant drawings within the plan.

Permit and disturbed area boundaries should be indicated on all drawings and cross sections for reference when applicable. Cross sections need to identify the extent of the disturbed area and delineate the cross section beyond the disturbed area onto the natural or undisturbed adjacent area to indicate that the slopes and sections conform to AOC requirements. Reclamation drawings should show the disturbed area boundary for reference and to show that reclamation activities will be conducted within that same disturbed area boundary. Areas which are currently not disturbed should be marked as proposed on the drawings. Once activity is completed in that area, as-built drawings should be provided by the Operator to delineate the actual area of disturbance and the current conditions at the mine site. These as-built drawings should be identified in a way so as to replace those drawings proposed in the permit revision as well as within the currently approved mining and reclamation plan.

Until such time as these drawings are submitted to the Division, the boundaries shown within the proposed permit revision will have to be compared with the previously approved drawings to ensure that the Operator is operating within the approved permit area boundaries. Acreage and other information within the plan will have to take into consideration, conflicting information within the approved plan and the permit revision.

The Operator needs to submit a map showing the location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. The map will be prepared and certified according to R614-301-512.

In conjunction with the annual report submitted to the Division, the Operator will be required to submit to the Division, an updated map of the mine workings. The submittal of those drawings at that time will be considered adequate to meet the requirements of this Section of the regulations.

Stipulations:

**Stipulation R614-301-521.100.-(1)-JRH**

**Maps and drawings within the plan shall be revised to incorporate the proposed facilities. Disturbed area boundaries shall be revised on all applicable drawings within the mining and reclamation plan to indicate those areas proposed for disturbance in conjunction with the permit revision. These changes to the plan shall occur prior to the permit renewal application due October 11, 1991.**

**R614-301-521.130. LANDOWNERS AND RIGHT OF ENTRY AND PUBLIC INTEREST MAPS.**

Operator's Proposal :

No new maps or drawings were submitted with the permit revision to indicate land ownership and right of entry information. Right of entry information in consideration of Questar's pipeline has been included in the text of the proposal.

Compliance:

Information regarding ownership and right of entry information is found within the currently approved mining and reclamation plan. The Operator is considered to be in compliance with the requirements of this Section of the regulations.

Stipulations:

**None.**

**R614-301-521.133. PUBLIC AND LANDOWNER PROTECTION.**

Operator's Proposal:

The Operator has proposed the relocation of Highway 53 in conjunction with the revision to the currently approved mining and reclamation plan. The road relocation will involve approximately 1200 feet of State Highway 53, passing directly through the proposed surface facilities for the mining operation.

Public notice for the road relocation was provided by the Operator jointly with the public notice for permit revision involving the new mine surface facilities to be installed at the Soldier Creek Mine. A copy of the Public Notice is provided in the proposal under Section 10.1.15 of the plan.

A letter to the BLM from the attorney for Carbon County has been provided by the Operator as Illustration 10.2.1-2 in the plan. An approval letter from Carbon County to Soldier Creek Coal Company is provided as Illustration 10.2.1-3.

The Operator has indicated in the plan in Section 10.2.3 that mine facilities adjacent to the road will be fenced and that access to the mine area from the public road will be controlled by roadside gates. The proposed mine facilities and the relocation of the public road are shown on Exhibit 10.1-1.

The Operator has indicated in Section 10.4.2 of the proposal that the Operator will assume the relocation cost, and thereafter, the county will assume the operation and maintenance of the new county road. During the operating period of the new county road, the Operator will not be held responsible by the Division for any destructive acts performed by the public to the reclaimed areas along the county road. Upon reclamation, the county road will be relocated as shown on Exhibit 10.3-1.

Compliance:

The Operator is considered to be in compliance with this Section. The Operator has provided in the plan, specific approval from the county and indicate that all requirements have been met for construction and relocation of the public road.

The drawings provided in the proposal do not indicate the amount of clearance that will be provided between the public road and the ROM conveyor. Prior to construction of this conveyor, the Operator should demonstrate that the clearance of the conveyor is adequate for the use and design of the public road. The Operator

noted in their Request for Air Quality Approval Order that the conveyor structure will be covered for their entire exposed surface length and that a dribble pan/tube will be attached to the Section of the conveyor that passes over the county road. Approvals by the County and BLM should be specific to the facilities and the operations involved in the road relocation and use of the public road.

It is recommended by the Division that Soldier Creek Coal work closely with the county to coordinate construction, operation, maintenance, and reclamation of the county road so that compliance with the regulations is maintained throughout the life of the operations.

Stipulations:

**None.**

**R614-301-524. BLASTING AND EXPLOSIVES.**

Operator's Proposal:

The Operator has indicated that all blasting operations will be performed in accordance with all federal and state laws and that a certified blaster will direct all blasting operations. This information is found in Section 10.2.7 of the Operator's proposal.

Compliance:

In accordance with the requirements of this Section of the regulations, a blasting plan must be filed with the Division for approval prior to conducting blasting operations in which more than 5 pounds of explosives are used. This plan does not have to be submitted prior to approval of this revision to the mining and reclamation plan, but must be submitted prior to conducting blasting activities.

Before conducting surface blasting operations, the Operator must comply with the requirements of R614-301-524. To ensure that no delays result from Division review and approval of the blasting plan, and that adequate notice time is provided as required under these regulations, the Operator should plan on submitting the blasting plan 60 days in advance of any anticipated surface blasting activities.

Stipulations:

**None.**

**R614-301-525. SUBSIDENCE.**

Operator's Proposal:

No information has been provided in this proposal for permit revision regarding subsidence.

Compliance:

Information regarding subsidence is being processed by the Division as an ongoing part of the approved mining and reclamation plan. The intent of this revision is to deal only with new surface facility installations.

Stipulations:

**None.**

**R614-301-526. MINE FACILITIES.**
**R614-301-526.110. EXISTING STRUCTURES.**

Operator's Proposal:

No existing structures are located within the area proposed for the new surface facilities with the exception of the public road proposed to be relocated in this revision will be used in connection with mining activities. There is however, a natural gas pipeline that does traverse through the area to be disturbed area. Comments regarding the pipeline are addressed under R614-301-526.200.

Compliance:

The Operator is considered to be in compliance with the requirements of the is Section in regard to the proposed new facilities expansion.

Stipulations:

**None.**

**R614-301-526.200. UTILITY INSTALLATION AND SUPPORT FACILITIES.**

Operator's Proposal:

Questar Pipeline Company has a 20 inch diameter, high pressure natural gas transmission line passing directly through the proposed new surface facilities. In consideration and in the interest of protecting this utility installation, Soldier Creek Coal Company has entered into a Conditional License Agreement with Questar to protect and maintain access for maintenance of the pipeline. The license is limited to the installation of certain proposed surface facilities, electrical and other underground utilities, a road and protective split casing over the pipeline as required by Questar to protect the gas line during construction, operation and reclamation of the proposed mining facilities.

Compliance:

The agreement grants Soldier Creek access solely to that portion of the pipeline right-of-way which will be affected by the installation and operation of the mining facilities. Soldier Creek must maintain access to the pipeline for maintenance by Questar. Other terms and conditions of the Agreement between Questar and Soldier Creek are considered sufficient for the protection of the gas pipeline.

Exhibit A of the Conditional License Agreement is the Right-of-Way Grant form the BLM to Mountain Fuel Supply Company (Questar). Item 6 of this Grant indicates that, "Any other or subsequent use by grantee or others of the lands or facilities granted under this right-or-way must be authorized by this office" [BLM]. BLM's acceptance of the permit revision and approval for the location and construction of the mining related facilities would constitute authorization in accordance with the terms of this Grant.

Stipulations:

**None.**

**R614-301-526.220. SUPPORT FACILITIES.**

Operator's Proposal:

Information regarding support facilities to be installed in conjunction with the

permit revision are shown on Exhibit 10.1.1-1. A narrative of these facilities is found within the text of the proposal.

Compliance:

The Operator is in compliance with this Section. However, insufficient information has been provided in the proposed revision to approve the construction and operation of the preparation plant included on Exhibit 10.1.1-1. Requirements under this Section of the regulations indicate that the Operator must state in the plan that support facilities will be operated in accordance with a permit issued for the mine or coal preparation plant to which it is incident or from which its operation results. In addition to the other provisions of R614-301, support facilities will be located, maintained, and used in a manner that: prevents or controls erosion and siltation, water pollution, and damage to public or private property; and, to the extent possible using the best technology currently available - minimizes damage to fish, wildlife, and related environmental values; and, minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions will not be in excess of limitations of Utah or Federal law through adequate design and operation of appropriate water pollution control facilities. Any discharges of water or waste water from coal preparation and coal processing facilities must be addressed.

The Operator has presented a flow sheet identifying all potential waste materials and water discharges for the system. The flow sheet indicates discharges that may be required during maintenance and repair periods. These data indicate the capacity of the thickener tank in the event that it needs to be purged for repair and the measures to be taken by the Operator to ensure that such discharges meet effluent limitations.

A considerable amount of water will be purged at that time and plans for treatment and disposal of this water should be included in the plan. Water from the coal processing facilities will be discharged into, or commingled with, the sediment pond and sediment control facilities. The Operator must show that the sediment control and design are sufficient to achieve compliance under all operating conditions with the addition of water from the coal processing facilities.

Stipulations:

**None.**

**R614-301-527. TRANSPORTATION FACILITIES.**
**R614-301-527.100. ROAD CLASSIFICATION.**

Operator's Proposal:

The Operator has indicated in the proposal that two primary roads will be added to the mine facilities area. A description of these roads is found in the text in Section 10.4.2 of the proposal. The location of these roads can be found on Exhibit 10.1.1-1.

The Operator has indicted that these roads will be constructed and maintained according to the regulations. The primary road leading into the yard will split in order to access the haulage facilities. The other primary road will access the portal area. Figure 10.4.2-1 shows the typical cross section for the design of both of these roads. The design indicates that these roads will be surfaced with a crushed rock base, then paved with 4 inches of asphalt.

Compliance:

The Operator is considered to be in compliance with the requirements of this Section of the regulations. The Operator has correctly classified these roads as primary roads. Drainage from these roads is integrated into the sediment control facilities for the pad areas and will report to the sediment pond.

The Operator has committed to submit as-built drawings of the facilities upon completion of construction of the new operations. In conjunction with the submittal of the as-built drawings, the Operator shall be required to provide certification of theses roads once they have been constructed.

Stipulations:

**None.**

**R614-301-527.200. TRANSPORTATION FACILITIES.**

Operator's Proposal:

A description of the conveyor system proposed in the new facilities area is described in the proposal in Section 10.2.5. The location of these structures is found

on Exhibit 10.1.1-1.

Dust suppression within the system will be conducted through the use of water spray systems which will be utilized when needed. Exposed conveyor areas will be covered and portions of the conveyors crossing the road will have a dribble pan or tube as protection from spills from the conveyor.

When the proposed facilities become operational, the present conveyor structure will be removed or modified as described in the plan.

Compliance:

The Operator is in compliance with this Section. Information contained within the text of the revision presents a general plan of the activities to be accomplished with the changes to the plan.

The Operator has provided a narrative description of the revised transportation facilities indicating anticipated capacity and design of the coal handling and processing facilities on the surface. This description includes surface coal storage locations and capacities, temporary waste storage and handling facilities, other waste and wastewater discharges, a general discussion of capability and production as a result of the newly installed facilities used in combination with the existing facilities, and the size and configuration of each structure to be installed as a result of this permit revision.

However, until such time as the new facilities are constructed and the approval and construction of the waste rock disposal facility are complete, the operator must provide a specific location for the temporary storage of spoil materials on the site. Refer to comment under R614-301-528-(1)-JRH.

Stipulations:

**None.**

**R614-301-528. HANDLING AND DISPOSAL OF COAL, OVERBURDEN, EXCESS SPOIL, AND COAL MINE WASTE.**

Operator's Proposal:

Information regarding the handling and disposal of coal and waste materials is

found in Section 10.2.5 of the proposal.

The Operator indicates that coal processing wastes will be hauled to their waste rock disposal site. No discussion was found within the text of the proposal detailing the handling, and the temporary and permanent disposal of coal, overburden, excess spoils, coal mine waste and coal processing waste materials.

Compliance:

The Operator is not considered to be in compliance with the requirements of this Section of the regulations.

Currently, the Operator's approved disposal plan involves the return of waste material to underground workings. However, the Operator has not identified on the surface, the location for temporary storage of coal mine waste, spoil and coal processing waste materials, except for the 300 ton refuse bin depicted on Exhibit 10.1.1-1. Permanent waste disposal facilities have yet to be submitted by the Operator for review and have not been approved by the Division. Without specific plans for the permanent disposal of coal mine waste and coal processing waste, approval for the operation of the coal processing facilities cannot be approved.

Temporary waste rock storage locations may include the utilization of waste materials in the construction of pads and roads for the facilities. Waste materials used in conjunction with backfilling and grading operations during construction of the new facilities should be accounted for in the plan. Upon reclamation the plan should note the final disposition of these materials. That is, the permanent location of these materials. If the waste materials are to be used as fill material in the reduction of highwalls, the plan should state so. If these material are considered as excess spoils and mine development waste, then they should be removed and located to the proposed permanent waste disposal site.

The Division has stipulated the need for, and the design requirements for, a permanent waste disposal in the 1987 mid-term permit review. This stipulation indicated that designs and information regarding the location of a permanent waste disposal facility should be submitted to the Division no later than October 11, 1991. The Operator is currently in the process of collecting baseline information and developing designs for a permanent waste disposal site.

Approval of the new coal processing facilities can only be accomplished when approval for a permanent waste disposal site has been granted by the Division.

Waste material can only be disposed of in conjunction with reclamation of the mine and portal facilities or returned to underground working as currently approved in the plan.

Stipulations:

**Stipulation R614-301-528.-(1)-JRH**

**Prior to the operation of the new coal processing facilities the Operator must have a permanent waste disposal site permitted.**

**The Operator shall provide the location, extent and amount of waste materials, excess spoils, mine development waste and other coal waste materials as they are temporarily stored in pads, roads or other fill areas within the permit area. The Operator shall provide sufficient design information within the reclamation plan to indicate the final disposition of these materials upon completion of reclamation. Quantities and amounts of materials to be moved or placed in conjunction with reclamation activities shall be provided with adequate description so as to use the information in the determination of the bond amount. Designs and information for the temporary and permanent storage and disposal of all waste materials shall be provided in the plan and submitted to the Division by October 11, 1991.**

**R614-301-528.330. NON-COAL MINE WASTE.**

Operator's Proposal:

The Operator has indicated in Section 10.2.5 of the proposal, that non-coal wastes and petroleum based waste products will be handled as stated within their currently approved permit.

Compliance:

The Operator is considered to be in compliance with the requirements of this Section of the regulations.

Stipulations:

**None.**

**R614-301-536. OPERATIONAL DESIGN CRITERIA, COAL MINE WASTE**

Operator's Proposal:

Section 10.2.6 of the revision states that SC3 envisions stockpiling coal mine waste material at an unspecified location at the mine site.

Compliance:

The discussion of the temporary stockpiling of coal mine waste is very vague. SC3 needs to determine the estimated quantity of material to be generated, the temporary location for storage, and a sampling program for temporarily stored waste (as per R614-301-731.300 and R614-300-145).

Stipulations:

**Stipulation R614-301-536.-(1)-(PWB)**

**(1) SC3 must designate a temporary storage area in the plan and on a map prior to storing any waste rock material on the surface within thirty (30) days.**

**(2) SC3 must design a sampling program for temporarily stored waste and permanently stored waste to be included in the Mining and Reclamation Plan within thirty (30) days.**

**Stipulation R614-301-536.-(2)-(PWB)**

**Ninety (90) days prior to stockpiling waste material on the surface, the location for temporary storage of coal mine waste and the maximum amount to be temporarily stored will be designated in a mine plan revision of Section 10.2.6.**

**R614-301-536.700. COAL PROCESSING WASTE.**

Operator's Proposal:

The Operator has included the installation of a coal preparation plant in conjunction with the new mining facilities included in this proposal. The location of the

preparation plant and associated conveyors and storage areas can be found on Exhibit 10.1.1-1. A narrative description of these facilities can be found in the proposal as Section 10.4.1, and in the Request for an Air Quality Approval Order, provided as Illustrations 10.2.6-1.

The Operator indicates that refuse will be held in the 300 ton refuse bin for transfer into haulage trucks and shipped to the wasterock site.

Compliance:

The Operator is not considered to be in compliance with the requirements of this Section of the regulations. Currently, no approved waste rock disposal site exists within the permit area for permanent disposal of coal mine and coal processing waste materials.

The Operator is however, in the process of locating and collecting baseline information in anticipation of installing a permanent waste rock and coal processing waste disposal facility. Because these facilities have not been submitted to the Division and are not yet approved, the only approved location for permanent disposal of waste rock materials is by returning it to underground workings.

Until such time as the permanent waste disposal facility is approved by the Division, no permanent storage facility for coal processing waste is found within the permit area.

Stipulations:

**Refer to Stipulations under R614-301-528.**

**R614-301-542.800. RECLAMATION COST ESTIMATE.**

Refer to comments made under R614-301-800.

**R614-301-551. CASING AND SEALING OF UNDERGROUND OPENINGS.**

Operator's Proposal:

The introduction to the proposed permit revision indicates that the planned

surface expansions include portals into the Rock Canyon Seam. The location of these new mine openings is found on Exhibit 10.1.1-1. No other information regarding the size and design of these portals, or the temporary casing or sealing of these mine openings has been included within the text of the proposal.

Compliance:

The Operator is not considered to be in compliance with the requirements of this Section of the regulations.

In a prior amendment to the mining and reclamation plan, the Division approved development of these mine openings on the condition that reclamation design for the closure of these mine openings be upgraded during the mid-term permit review. No specific design information on these or other portal closures is found within the text or drawings of this proposal or the currently approved mining and reclamation plan.

The Operator must address the requirements of this Section. Due to the inadequacy of the information presented in the currently approved mining and reclamation plan, it appears that the Operator could best address the requirements of this Section in conjunction with permit renewal.

Stipulations:

**Stipulation R614-301-551.-(1)-JRH**

**The Operator shall provide more detailed information regarding casing and sealing of underground openings. The Operator must indicate that when no longer needed for monitoring or other use approved by the Division upon a finding of no adverse environmental or health and safety effects, each shaft, drift, adit, tunnel, or other opening to the surface from underground will be capped, sealed and backfilled, or otherwise properly managed, as required by the Division and consistent with MSHA, 30 CFR 75.1771. The Operator must submit plans and drawings for permanent closure measures designed to prevent access to the mine workings by people, livestock, fish and wildlife, machinery and to keep acid or other toxic drainage from entering ground or surface waters. These changes to the plan shall occur on or before October 11, 1991.**

**R614-301-553. BACKFILLING AND GRADING.**

Operator's Proposal:

Backfilling and grading mass balance calculations have been provided for the new portal and mine facilities are in conjunction with the road relocation. Exhibit 10.3-1 shows the proposed final contours of the new facilities area.

Section 10.2.12 provides information regarding topsoil and subsoil removal for the facilities. A materials balance has been provided in Table 10.3.8-2.

Compliance:

The Operator is not in compliance with this Section. This information is considered to be adequate for the portion of the new facilities to be constructed but does not account for the revised reclamation contours of those areas currently approved in the mining and reclamation plan.

Mass balance calculations have been provided in the proposed expansion facilities. However, detailed contour information is not presented for the existing mining and reclamation plan for the currently approved facilities. This deficiency is considered to be a problem with the existing permit more than a problem with the revision submitted to the Division.

In referring to the bonding calculations currently provided in the approved plan, it is impossible to determine to what extent the revisions to the plan affect the previously approved mining and reclamation plan and the reclamation treatments that apply throughout the existing and proposed mine facilities.

Mass balance calculations for the entire mine facilities area need to be revised on the drawings and incorporated into the text and calculations in the mining and reclamation plan. These revisions to the plan should be accomplished in conjunction with permit renewal.

Problems have been found in the existing mining and reclamation plan and the proposal for the new portal facilities with the identification of topsoil and substitute topsoil materials. No inventory of these materials included in the plan.

However, in newly disturbed areas, substitute topsoil materials has been identified in the plan and will be and segregated and stored in accordance with the

requirements for topsoil material. Substitute or alternate topsoil will not be used as backfill material or in association with the construction of pads, roads or other earthen structures. These materials will be stored and stockpiled in a manner identical to that of topsoil at the topsoil storage facilities located at the bottom of the canyon adjacent to the proposed waste rock disposal facilities.

The existing mining and reclamation plan does not clearly state exactly how much topsoil and substitute topsoil has been harvested and stockpiled for reclamation, and, how much material has been identified as substitute topsoil materials within the pre-law disturbed areas.

A mass balance and inventory must be made for the entire facility which shows that sufficient topsoil, substitute topsoil and alternate topsoil materials have been segregated and stored in sufficient quantities for the amount of material needed in reclamation for topsoil distribution.

Pre-law disturbed areas and the materials identified in place which are characterized as substitute topsoil material should be clearly identified on a map to show the location and extent of these materials, since pre-law areas can be handled under different topsoil storage criteria than new or disturbed areas which occurred after implementation of Utah's regulatory program. The dates and the timing for identifying those areas should be clearly presented on the drawings. Those specific dates which allow for such a variance in the criteria for reclamation are found under R614-301.142.

Mass balance calculations for backfilling and grading calculations are further complicated by the inadequacy of the topsoil salvaging and stockpiling. The cut and fill cross sections, showing the amount of material required for backfilling and grading, do not account for the harvesting, storage and placement of topsoil on the site.

Excess spoil and mine development waste material have also not been adequately addressed in the mining and reclamation plan as well as the new portal expansion facilities. The Operator should utilize these materials, to the extent possible, for the backfilling of the culvert and for the construction of pads and roads rather than utilizing suitable topsoil materials for such activities. Excess materials were planned to be disposed of in the permanent waste rock disposal area, but designs and plans for the permanent facility have not been received and approved by the Division to date. In the interim, the Operator must successfully accommodate these materials by providing temporary waste storage areas. These temporary storage areas must be designed and located within the permit area and be of sufficient capacity to contain

excess waste material until the permanent waste disposal facilities are designed and approved by the Division.

Stipulations:

**Stipulation R614-301-553.-(1)-JRH**

**The Operator shall revise and update the mining and reclamation plan to provide more specific and detailed information regarding reclamation backfilling and grading designs. Maps and drawings shall be provided by the Operator to clearly delineate disturbed areas, demonstrate ability of the reclamation plan to meet AOC requirements, demonstrate highwall and spoil pile elimination, provide slope protection and stability for regraded areas, prevent erosion and water pollution, and support the post mining land use. Mass balance calculations for the entire disturbed area shall be provided to demonstrate that a shortage or excess of materials is evident in backfilling and grading contours proposed and to provide quantities for bonding calculations. Backfilling and grading plans for reclamation shall indicate the final disposal of refuse and mine development waste present within the disturbed areas, and locate and describe the final location and disposition of these materials for final reclamation. The Operator shall identify and quantify topsoil and substitute topsoil materials to demonstrate that sufficient soils materials are available for reclamation and to provide quantities for reclamation cost estimation. These changes to the plan shall occur by October 11, 1991.**

**Stipulation R614-301-553.-(2)-JRH**

**In the event that any highwalls or highwall remnants are to be retained in conjunction with the final reclamation of the mining operations, the Operator must address the specific requirements under this Section of the regulations and under R614-302-270 of the Rules. Upon submittal of information regarding the retention or partial retention of highwalls, the Division will be required to make a determination as to whether or not the information provided in the mining and reclamation plan is sufficient to allow a variance for the retention of the highwalls as part of the post mining land use. The**

**Operator shall clearly and specifically indicate which areas under consideration for highwall retention are in conjunction with pre-law disturbances, and those areas which are disturbed after those dates set forth by the regulations which allow for specific variances from the regulations regarding the retention of highwalls. These changes to the plan shall occur by October 11, 1991.**

**R614-301-553.250. REFUSE PILES**

Operator's Proposal:

The SC3 revision states that coal and toxic forming materials will be covered.

Compliance:

The Operator is not in compliance with this Section. Coal and acid toxic forming material must be covered with 4' of non-toxic, non-combustible material.

Stipulations:

**Stipulation R614-301-553.250.-(1)-PWB**

**SC3 must commit, in the Mining and Reclamation Plan, to covering all acid/toxic and coal material during final reclamation with four feet non-combustible and non-toxic material by October 11, 1991.**

**R614-301-712. CERTIFICATION**

Operator's Response:

All maps and figures in each appendix are stamped.

Compliance:

The Operator is in compliance with the submitted "maps", but did not submit all the necessary certified map changes. The Operator did not submit certified maps for the Alternate Sediment Control Area (ASCA). Although there is a certified map for the changes made to the ASCA's #5 contained in Exhibit 10.2.4.1.

Stipulations:

**Stipulation R614-301-712.-(1)-SKF**

**By October 11, 1991 the Operator will include all ASCA's on applicable maps. At a minimum they should be included on all drainage design maps and facilities maps. For those areas located outside the range of the maps the Operator must include copies of the previously approved certified maps except when proposing a change in design (i.e. amendment).**

**R614-301.722.200** **CROSS SECTIONS AND MAPS. THE APPLICATION WILL INCLUDE CROSS SECTIONS AND MAPS SHOWING LOCATION OF CONSTRUCTED AND NATURAL DRAINS.**

Operators Proposal:

Berms and drainages are placed on Exhibit 10.2.4-1, and E030.

Compliance:

The Operator has submitted a map with changes in WS-4. The map submitted does not present the elevational contours at the outer limits of Watersheds 3 and 4. Without the elevational contours it would be impossible to determine that this map is correct, although it can be determined that the outer limits of the watershed represent the actual watershed contours by comparing Exhibit 4.2-6, revised 7/31/87. It would seem that Exhibit 4.2-6 would be replaced by exhibit E030 due to watershed boundary changes and conflicting information.

One map should show all drainage and sediment control measures, and then using a workable scale another map should show the full extent of the larger drainages (the scale equal to Exhibit 4.2-6 would suffice for the full drainage map). These maps must be able to stand on their own. If adjacent areas are presented on separate maps, they must match (topography and scale) and be cross-referenced on each map.

Stipulations:

**Stipulation R614-301-722.200.-(1)-SKF**

**The Operator needs to provide a map showing all contours**

**with the correct watershed maps. The Operator will submit watershed map(s) that are concise and comprehensive, eliminating unnecessary photocopies. This information will be submitted in the permit renewal due October 11, 1991.**

**R614-301-728.400. PROBABLE HYDROLOGIC CONSEQUENCES (PHC) DETERMINATION.**

Operator's Proposal:

The Operator has resubmitted a PHC in this revision. The submittal includes Probable Hydrologic Consequences of the Treatment Facilities.

Compliance:

The Operator is in compliance at this time. The Operator has an approved PHC in the current MRP. The Operator has submitted additional information regarding the hydrologic concerns of this revision. Because the Treatment facilities will not be approved at this time the PHC will be reviewed before such time that the Treatment Facilities are approved. At this time the existing PHC in the MRP still stands.

Stipulations:

**None.**

**R614-301-731. OPERATION PLAN - GENERAL REQUIREMENTS.**

Operator's Proposal:

The proposal does not contain specific steps to be taken during coal mining and reclamation operations through bond release to minimize disturbance to the hydrologic balance. The proposal does include a design for Soldier Creek stream reclamation. The Draft deficiency response submitted April 1, 1991 including mitigation steps to divert low flows around the stream during reclamation through a coffer dam and by-pass pipe to prevent contributions of suspended solids to stream flow.

Compliance:

The Operator reiterates the plan to provide a silt fence along reclaimed stream channel in Section 10.3-1 and includes location of treatment on Exhibit 10.3-1. The proposed facilities expansion plan still does not adequately address the steps of reclamation operations. The Operator needs to supply information indicating the phased reclamation steps. The BTCA for phased reclamation includes use of a sedimentation pond. There are no plans for diverting drainage to the pond or undisturbed drainage away from a reclaimed site during the reclamation process, nor has the submitted design provided adequate demonstration of sediment control. The Operator has not submitted additional permanent drainage designs for ephemeral and intermittent streams in the disturbed area.

The plan indicates that a filter fabric should be used in the Soldier Creek channel reclamation. It is assumed that this is a commitment to use the filter fabric during channel reclamation. There are no descriptions of the properties of the rip-rap used regarding durability and weight compatibility for the methodology of the rip-rap sizing.

The Operator remains out of compliance with this regulation.

Stipulations:

**Stipulation R614-301-731.-(1)-SKF**

**The Operator must submit designs for all drainage and phases of reclamation according to this regulation and R614-301-760. The reclamation shall include phased sediment control methods meeting the minimum requirements of 763.100. The Operator shall correlate the information requested herein with stipulation R614-301-553-(1), and R614-301-800.-(1)-(JRH) by October 11, 1991.**

**R614-301-731.222.2. POINT-SOURCE DISCHARGES**

Operator's Proposal:

The Operator proposes to release water from the coal processing facilities to the sediment pond and current discharge point. The Operator indicates that this treated discharge would be in compliance with the existing NPDES permit, Appendix A.

Compliance:

The current NPDES program requirements should be checked to assure the present permit for sediment pond discharge is in compliance with the potential changes required by R614-301-733,-742. The current NPDES (contained in the MRP) allows discharge of only one discharge point from the pond at a time. The decant was considered one of the discharge points and the spillway was considered the second point for which only one is to discharge at a time.

Stipulations:

**None.**

**R614-301-731.300 ACID- AND TOXIC-FORMING MATERIALS**

Operator's Proposal:

The Operator sites Section 10.2.6, pg.7, in the submittal wherein it states, "... any interim sampling, according to the regulations, will be conducted for acid-toxic forming material" and, "...the storage burial or treatment practices will be consistent with other material handling and disposal provision of the R614 rules".

No acid-toxic-forming materials are identified in the limited analysis submitted in this proposal. The Operator only submitted analysis of materials that will be used as fill in the disturbed area. The Operator indicates that it will treat the toxic-forming materials, yet provides no discussion of how (frequency of sampling, etc.) it will be identified or treated if necessary. There is no mention of how storage areas will prevent risk of water pollution or environmental damage. The Operator has submitted a limited discussion of the coal processing and waste disposal. It is assumed that these issues will be discussed in the proposed amendment for a waste rock site.

Compliance:

The Operator has committed to meet the requirements of this Section if acid and toxic materials are identified, but still supplies no specific information indicating how protection of surface and groundwater will be met.

Stipulations:

**Stipulation R614-301-731.300.-(1)-SKF**

**The Operator has not submitted information on methods used to identify and/or treat acid- and toxic-forming material. Storage areas, and methods that would be used to protect surface and ground water are not identified as such. The Operator must address these issues by October 11, 1991.**

**R614-301-731.700. MAPS**

Operator's Proposal:

The Operator has submitted Exhibit 10.2.3 and a description of the collection and conveyance system for the proposed coal processing facilities in Section 10.2.3. Other maps were submitted indicating additional drainage controls and conveyances are addressed in R614-301-712, R614-301-722.200, and R614-731-(1)

Compliance:

The Operator has submitted information to address cross sections and maps. Because the processing facilities will not be approved at this time that information was not reviewed.

Stipulations:

**None**

**R614-301-731.750. CROSS SECTIONS FOR EACH EXISTING AND PROPOSED SEDIMENTATION POND**

Operator's Proposal:

The Operator has submitted cross sections for the proposed sediment pond design change for the principal and emergency spillways, and decant in drawings B127, B126, and B125, revised 5/21/91. The Operator has not submitted proposed cross-sectional and design changes on the pond design map Figure 21.

Compliance:

The Operator is not in compliance with this Section.

Stipulations:

**See Stipulation R614-301-733.-(1)-SKF**

**R614-301-732.420. ROAD DRAINAGE**

Operator's Proposal:

The Operator submitted information in Section 10.5.3, pg.26 describing the road inlets as projecting end culverts not needing additional protection because the culverts are inlet controlled and flow entering the culvert is subcritical.

Compliance:

The Operator has not demonstrated measures used to protect inlets but instead demonstrates that the inlet is protected through the nature of design for the 10 yr.- 6 hr. event.

Stipulations:

**None**

**R614-301-733. SEDIMENTATION PONDS**

Operator's Proposal:

The Operator has provided pond designs, to handle the additional drainage area produced by the facilities expansion. The pond design changes include:

1. Changing the existing decant into the emergency spillway. The existing gate valve will be locked in an open position.

2. Add a 3" butterfly valve decant at the Maximum Sediment level, 1.95 ft. above the 60% level. The Operator will remove sediment when at the 60% clean out level (Section 10.5.3, pg.26).

3. Pass the peak 25 yr.- 6hr. event through both spillways.

4. Include the emergency routing of the plant process water in the total pond runoff detention volume.

5. The most recent survey, May 1991, assumes 0.3 AF is currently in the pond bottom according to the final construction report revised 2/4/87.

6. The permittee has also decreased the precipitation value for the 10 yr.- 24 hr event from 2.08" in the MRP to 1.9".

SOLDIER CREEK COAL COMPANY POND

| POND DESIGN CHANGE | PREVIOUS ELEVATION FT. | PREVIOUS VOLUME (FT3) | PROPOSED ELEVATION FT. | PROPOSED VOLUME (FT3) | COMMENTS |
|---|---|---|---|---|---|
| 60% SEDIMENT CLEAN OUT | 6646.8 | 0.86 | 6647.55 | .086 | |
| MAXIMUM SEDIMENT VOLUME(yrs) | no change | | 6649.5 | 1.43 | |
| DECANT | 6649.35 | 1.54 | 6649.5 | 1.43 | 1.95 ft above 60% clean out level |
| PROCESS WATER STORAGE | none | | 6649.5 | 0.44 | |
| RUNOFF VOLUME | 10yr.-24hr. precip. = 2.08" | 1.76 | 10yr.-24hr. precip.= 1.9" + | 1.49 | |
| PRIMARY SPILLWAY | 6654.1 | 3.3 | 6654.5 Runoff + Max. Sed. + Process | 3.36 | |
| EMERGENCY SPILLWAY | none | | 6654.5 | 3.36 | |
| FREEBOARD | | 1.22 | 6655.12 | 1.08 FT | |
| EMBANKMENT | 6656.2 | | 6656.2 | | |

Compliance:

The Operator has proposed designs to provide an adequately sized pond. But, the Operator failed to send the certified map of the pond layout. Additionally, the text does not clearly describe that the pond will be passing the peak event through both spillways, and it does not identify whether the riprap under the spillway applies to both spillway outlets. Although the pond design is adequate, there still remains some discrepancies in text. Section 10.5.3, pg.26, indicates that the freeboard is at 1.08 ft while Appendix A, pg.8, indicates that freeboard is at 1.48 ft. Some discrepancies still exist in watershed areas between Appendix A, Table 2-1, and Attachment A pg.4, and map E030.

The Operator has submitted a pond design acceptable to the Division. Changes in the pond design requires that it be routed to Health. The design change is currently under review with the Department of Health. Until we receive their concurrance the existing sediment pond will be maintained. Maintainance can be justified because of the short term nature of the design, and the high probability that the required design peak event would not occur during this time period. Assuming a maximum of 3 months to complete the design changes there is a 98.8% chance that a 25 yr. 6 hr. precipitation event will not occur during that time.

**Note**: Submitted pond designs are based on the proposed disturbed areas, not on the potentially disturbed area. If the Operator is going to enter into the potential disturbance area an amendment will need to be submitted to the Division with revised sediment pond calculations and other pertinent information.

Stipulations:

**Stipulation R614-301-733.-(1)-SKF**

**The Operator will clarify all discrepancies in the text, finalize pond modifications, and provide all applicable certified designs on or before October 11, 1991.**

**R614-301-742.100. GENERAL REQUIREMENTS**

Operator's Proposal:

A particular area of concern is the west bank of Soldier Creek at the downstream end of the Soldier Creek by-pass culvert. This area has collected coal fines in the past. The permittee is including a 2' 8" jersey barrier (Appendix B, Drawing 735-1B, Section B-B), as part of the road relocation design, to minimize deposition of coal fines in this area. All additional temporary diversion designs are presented by the Operator to prevent material damage outside the permit area.

Compliance:

The permittee is in compliance with this regulation. The design of the Jersey barrier was submitted in the Operator's proposal.

Stipulations:

**None**

**R614-301-742.200. SILTATION STRUCTURES.**

Operator's Proposal:

A total of 35.8 acres is being directed to the sediment pond according to my summary of the Operator's proposal, and an additional 5.03 acres is treated by

Alternate Sediment Control (ASC) methods.

The Operator will be re-contouring the area surrounding the existing electrical sub-station and fan area ASCA #3. Because the area around ASCA #3 is regraded due to the expansion, the Division requested an attempt be made to divert the runoff to the sedimentation pond. The Operator states that ASCA #3, the Exhaust Fan Site (area of 0.35 acres), is still unable to report to the sedimentation pond due to the remote configuration of the site. A drainage ditch to direct drainage from the site to the pond would have to be a 200 ft. long culvert at 0.5% grade. The Operator indicates that the low grade would cause a high maintenance requirement that would be impractical. No design was provided for the runoff event at this site. The Operator states that it was difficult to determine runoff because the gravel top provides adequate porosity to maintain subsurface flows and because there is a high infiltration rate in the area. According to their field observations, no surface runoff has occurred at the ASCA.

The Operator has submitted a draft version of Alternative Sediment Control (ASCA) measures for area #5. This ASCA, originally a 3.56 acre area, is proposed to be decreased to 0.43 acres which includes 0.11 acres at the outlet of the Soldier Creek Bypass Culvert. At the request of the Division the permittee has resubmitted these designs in a draft form. Additional measures employed by the Operator to decrease sediment contribution from this area include an undisturbed diversion ditch above the disturbed area.

The Operator has predicted the amount of runoff expected from ASCA #5 to be 0.012 AF. The Operator indicates that 0.32 acres reports to straw bales and .11 acres is treated with riprap and revegetation/mulching at the culvert outlet. In this submittal the Operator has also changed the 10 yr.- 24 hr. event from 2.08" to 1.9" on ASCA #4 and ASCA #5.

Additional Sediment Control Areas submitted were the new temporary topsoil pile and the upstream end of the bypass culvert (ASCA #7 and ASCA #8 respectively).

Compliance:

The Operator has implied that runoff from ASCA #3 is minimal for the design storm event. The Division will continue to inspect the ASCA to confirm the Operators claim that the area will adequately handle drainage as subsurface flow for events smaller than the 10 yr. - 24 hr. event. The Operator did not provide a design runoff

calculation. My calculation resulted in a estimated volume of .013 AF, using a CN of 78 for gravel areas, and precipitation of 1.9 inches for a 10 yr.- 24 hr. event over the 0.35 acre area. If, during field inspections following road construction, it is determined that ASCA #3 can be directed to the sedimentation pond, and if it is determined that the area is not providing sufficient water quality protection, drainage to the sediment pond or additional ASC measures will be required.

The Operator has resubmitted the information for ASCA#5 including the undisturbed drainage area ditch. On the submitted drainage map it appears as though the drainage is not reflective of the topographic drainage indicated on the map. It was indicated, through discussion with Johnny Pappas, that the drainage slopes away from the ASCA and the undisturbed drainage ditch therefore, the design submitted will be accepted. The submitted map will be used in the field to check the accuracy of the designs. Appropriate action will be taken if it is determined that additional drainage, not included in the drainage area design enters as it appears on the submitted map.

The Operator has not summarized the total area designated ASCA and the total disturbed area as requested by the Division in the previous Draft Technical Analyses. According to the Operator 6.4 acres of additional disturbed area would occur with a total disturbed area of 18.5 acres (Section 10.2., pg.3). The total area of ASCA's (3.49 + 1.54 unaccounted for in the sewage lagoon) per total disturbed and proposed disturbed area is 27% according to the summary of the following table:

Soldier Creek Coal Company
Alternative Sediment Control Area Summary

| ASCA | Description | Drainage Area Acres | 10yr-24hr Precip | Curve No. | RunOff Acre Feet |
|---|---|---|---|---|---|
| ASCA 1 | R.E.I. Storage Area | 0.42 | 2.08 | 75 | .015 |
| ASCA 2 | Parking Lot Outslope | 0.27 | 2.08 | 75 | 0.01 |
| ASCA 3 | No. 2 Exhaust Fan | 0.35 | | | no design |
| ASCA 4 | North of No. 2 Fan | 0.02 | 1.9* | 75 | 0.0006 |
| ASCA 5 | Portal Bench Disturbance | 0.43 | 1.9* | 75 | 0.012 |
| ASCA 6 | Sewage Lagoon + | 0.46 | 2.08 | 75 | 0.02 |
| ASCA 7 | Topsoil Storage Site** | 1.50 | 1.85 | 85 | 0.85 |
| ASCA 8 | By-Pass Culvert Inlet | 0.04 | 1.9 | 85 | 0.002 |
| Total | ASCA Disturbed | 3.49 | | | |

* Indicates a deviation from the approved plan.
\+ This accounts for only the outslope of the lagoon total disturbed area, for the lagoon in the MRP is 2.0 acres.
** This site also has 0.8 acres untreated disturbance for access roads and drainage control construction.

Stipulations:

**Stipulation R614-301-742.200.-(1)-SKF**

**The Operator needs to include that part of ASCA #6 area, that is treated by the Sewage Lagoon, into the plan as a disturbed area reporting to the ASCA, and include the correction in the summary of total disturbed area if it is not presently included. These stipulations must be addressed by October 11, 1991 permit review.**

**R614-301-742.311. DIVERSIONS**

Operator's Proposal:

The Operator did submit information into the document with a disclaimer for ditch maintenance during the winter period (Section 10.5.3, pg.27, 06/7/91 revision). The Operator, in the pond design, identifies routing water to the operational drainage ditches.

Compliance:

The Operator is not in compliance with this regulation because it included the disclaimer to ditch maintenance. The burden for operations and activities within the disturbed area boundaries remains with the Operator.

Although the probability of a discharge from the processing plant during the design event is low, the Operator did not demonstrate adequate ditch design for the flushing of processing water in the operational drainage ditch designs and, is therefore out of compliance with this regulation.

Stipulations:

**Stipulation R614-301-742.311.-(1)-SKF**

**The Operator must remove the sentence on pg.27, of the 06/7/91 revision, which suggests that the Operator is responsible for providing maintenance at the main points of conveyance only. Any other statements limiting the Operators responsibility to provide maintenance of drainage designs must be deleted. This will be provided within 10 days from date of permit approval.**

**Stipulation R614-301-742.311.-(2)-SKF**

**The Operator must commit, in the plan, to discharge from the plant only if no precipitation event is occurring unless there is a potential adverse effect on public, property, health, safety or environmental damage or, demonstrate adequate ditch design. This must be completed before approval of the waste rock site and operation of the facilities.**

**R614-301-800. BONDING AND INSURANCE.**

Operator's Proposal:

The Operator has provided bonding cost information in conjunction with the proposed permit revision. This information is found in tables 10.3.8-1 through 10.3.8-3. Additional cost information in regard to the total bonding requirements for the mine facilities is found in the currently approved mining and reclamation plan and in the permit revision for the location of the new topsoil storage facilities.

Compliance:

Calculations to include the new topsoil storage facilities as well as the road relocation and new mine facilities area were included in the review by the Division of the topsoil storage facilities. As noted in that review, several deficiencies in the method of determining the bond amount were noted. A high contingency factor was built into the cost estimation to allow for errors made in determining the bond amount required for approval of the topsoil storage area as well as the road relocation and new storage facilities.

In order for the Operator to address the deficiencies found in the reclamation plan of the currently approved mining and reclamation plan, the topsoil storage facilities, the road relocation and new mine facilities, a complete and accurate

determination of the costs associated with reclamation must be determined by the Operator. Because the permit will require renewal in February of 1992 and the Operator intends on submitting an additional permit revision for the proposed mine waste disposal facilities, it is apparent that a recalculation and determination of bond amount will be required at that time.

In general, several of the errors in providing reclamation cost information by the Operator in the current mining and reclamation plan make determination of the bond amount required difficult. Specific details and design information to determine the bond amount are not provided in the mining and reclamation plan. Several references are made in the current mine plan information as to costs determined by OSM that were used for the bond amount, but the basis of those costs is not provided in the plan. These deficiencies must be corrected in conjunction with permit renewal.

Additionally, backfilling and grading calculations for mass balance are not provided in the current mining and reclamation plan. The additional mine facilities overlap the previously approved disturbed area and affect the post mining reclamation contours of the currently approved mining and reclamation plan. The entire mine facilities area will require mass balance calculations and a revised reclamation plan to integrate the existing facilities with the proposed facilities area.

More specific details on the locations and amounts of waste materials, backfilling and grading quantities, the final disposition of waste materials to disposed of at the mine site in conjunction with reclamation, topsoil materials, substitute topsoil materials and their methodologies to determine that sufficient materials are available for reclamation must be provided in the design calculations for backfilling and grading and the design information for determination of reclamation costs. Current problems associated with the salvaging of topsoil and suitable substitute topsoil materials make it difficult for the Operator to analyze and provide specific quantities and detail for the reclamation designs. Once all of the available soil material have been identified and moved to the topsoil storage facilities a more accurate accounting of these materials can be made for determination of reclamation costs.

Quantities and methods of disposal of materials from demolition and removal of mine structures and facilities is also not considered adequate in the current cost estimate information provided by the Operator. Quantities provided by the Operator for structures, foundations, pavement, fencing, etc., are not provided in a manner that can identify or verify that the information provided in the plan is correct. For example, page 5-79 of the mining and reclamation plan shows many of the problems associated with the current cost estimate information. The page notes that costs were

used from an OSM letter dated July 10, 1985, but does not cite the specific information that was derived from that letter. Volumetric information for steel, concrete, etc., are listed as a lump sum with no calculations or information to show how this lump sum amount was obtained. Further these lump sum amounts were multiplied by cost factors which are not geometrically similar to the lump sum quantities used (i.e. cu yd x $/sq ft in item C., cu yd x $/sq yd in item D.). Adjustment to costs, quantities, escalation, and inflation factors used by the Operator in determining these bond amounts are obscure and the basis for determination of these costs have been left out of the mining and reclamation plan.

The proposal for the road relocation and the new facilities is missing standard engineering practices and methods to provide detailed information that is normally required to determine construction costs. In the existing plan, only hours for specific equipment is provided to earthwork costs. No quantities or productivity information was provided to justify the equipment or the hours used for the cost estimate. Similarly, in the revision proposal for the new mine facilities, quantities were provided in the mass balance calculations, but equipment selected for the reclamation work appears to be an arbitrary list of equipment and the earthwork costs are based on a unit cost per cubic yard of material that was not determined by the equipment listed.

Stipulations:

**Stipulation R614-301-800.-(1)-JRH**

**The Operator shall provide to the Division, a detailed and concise cost estimate for reclamation with supporting reclamation designs and calculations which encompass all existing and proposed mining and support facilities and proposed facilities anticipated within the next permit term by October 11, 1991.**