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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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May 6, 1991

Mr. Rick Olsen, President  
Soldier Creek Coal Company  
P. O. Box 1  
Price, Utah 84501

Dear Mr. Olsen:

Re: Technical Deficiency Review, Surface Facilities Expansion, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018-91-1, Folder #2, Carbon County, Utah

Your January 9, 1991 and subsequent submittals regarding the above-noted permitting action have been reviewed by the Division's technical staff. A draft technical analysis has been enclosed which outlines the technical deficiencies that still need to be addressed prior to our granting approval for this project.

Please review the attached TA which outlines the requirements of this project and respond accordingly. The Division is anxious, as we are sure you are, to bring this project to completion.

If you have any questions please feel free to phone me.

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock".

Daron R. Haddock  
Permit Supervisor

**Attachments**

cc: L. Braxton, DOGM  
SURFEXPA.LET

May 6, 1991

## **DRAFT TECHNICAL ANALYSIS**

**Permit Revision, Surface Facilities Expansion, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018-91-1, Folder #2, Carbon County, Utah**

### **BACKGROUND**

Soldier Creek Coal Company (SCCC) proposes to upgrade and expand the Surface Facilities at the Soldier Canyon Mine. This expansion is being handled as a permit revision due to the increase in disturbed area and relocation of County Road 53.

The Mining and Reclamation Plan (MRP) for the Soldier Canyon Mine was originally approved by the Division of Oil, Gas and Mining (DOG M) 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 August 8, 1989, a revised permit, including the 557.2 acre lease, was issued bringing the permitted area to a total of 4,905.19 acres.

### **INTRODUCTION**

The Surface Facilities expansion proposes to incorporate two previous permit amendments (incidental boundary changes), provide extra area needed for additional facilities, and realign the County Road which passes through the permit area. The bonded disturbed area will increase from 32.2 acres to 37.8 acres. The total permit area is unaffected by this revision.

The planned surface expansions include the following:

1. Portals into Rock Canyon Seam.
2. 4th North #1 Belt, Transfer House and Crusher.
3. Silo Conveyor Belt.
4. 2 - 6,000 Ton Concrete Silos.
5. Reclaim Tunnel and Vibrating Feeders.
6. Reclaim Belt.
7. Coal Preparation Plant
8. Coal Truck Bin Belt.
9. Refuse Truck Bin Belt.
10. Coal Truck Bin Facility
11. Refuse Truck Bin Facility.
12. Thickener
13. Stream Culvert
14. Drainage Control.
15. Access Roads.
16. County Road Realignment.
17. Miscellaneous Support Equipment.

**R614-301-100.**  
**R614-301-114.100**

**GENERAL CONTENTS  
RIGHT-OF-ENTRY INFORMATION. AN APPLICATION  
WILL CONTAIN A DESCRIPTION OF THE DOCUMENTS  
UPON WHICH THE APPLICANT BASES THEIR LEGAL  
RIGHT TO ENTER AND BEGIN COAL MINING AND  
RECLAMATION OPERATIONS IN THE PERMIT AREA....**

Applicant's Proposal:

No description of documents identifying the specifics of the legal rights for road relocation is included in the permit application. The right of way grant, submitted as Exhibit A, between the BLM and Mountain Fuel requires authorization by the BLM. Under the submitted conditional license agreement between Questar and SC3, SC3 is committed to the conditions of the license. The applicant included a letter from a representative of Carbon County's Roads Special Service District to the BLM giving their support of the Soldier Creek Road Realignment. No authorization from the BLM is included in the submittal.

Compliance:

The Operator is not in compliance with this regulation.

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Stipulations:

**Stipulation R614-301-114.100.-(1)-SKF**

**The Operator must submit written information from the BLM indicating their approval as stipulated in Questar's license agreement before approval of this revision can be granted by the Division.**

**R614-301-120. APPLICATION FORMAT**

Applicant's Proposal:

The information pertaining to each regulation is scattered throughout the text.

The regulations cited to head portions of text are inaccurate in some instances, i.e. pp 9 & 10.

Compliance:

The Applicant is not in compliance with this regulation. To be determined complete for publication, all future submittals must address each issue in the order described by the regulations, using the regulations as headings.

Stipulations:

**Stipulation R614-301-120.-(1)-PWB**

**Prior to submittal of the plan for the 1992 permit renewal, SC3 must address each issue in a clear and concise format, following each regulation.**

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

Applicants 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 Operator is not in compliance with this section.

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Stipulations:

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

**The Division requires that the Applicant devise a new SPCC plan in accordance with the 40 CFR Part 112, Subpart 112.7 prior to revision approval.**

**R614-301-220.**

**ENVIRONMENTAL DESCRIPTION**

Applicant'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.

**R614-301-221.**

**PRIME FARMLAND INVESTIGATION**

Applicant'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 Applicant is in compliance with this section.

**R614-301-222.100.**

**A MAP DELINEATING DIFFERENT SOILS**

Applicant's Proposal:

The third order survey places the soils in the map unit 96, Rock Outcrop-Rubbleland-Travessilla Complex (Exhibit 3.6-1 or Drawing E029). More intensive study of the area by the SCS revealed the soils in the yard expansion project to be Cumulic Haplustolls, coarse loamy over loamy, skeletal, mixed, mesic. No detailed soils map was provided.

A topsoil thickness survey map (Illustration 10.6.1-2) was submitted. The survey covers the outcrop above the new culvert installation which will be graded to allow for passage of the County Road. Two zones of topsoil recovery were established based on the presence of rocks and boulders. From zone 1, and estimated 7.4 inches and, from zone 2 an estimated 47.5 inches will be the average recovery. Total recovery from this area is estimated to 360 cu yds.

The topsoil thickness survey indicates that most of the recoverable soil is along the cut banks of the stream disturbance. Illustration 10.6.1-2 is insufficient to be used to check the estimate. No calculations were included in the narrative. The applicant bases the yardage to be recovered on several assumptions: presence of rocks, topsoil adhering to roots, etc.

The Applicant will also be removing soils from underneath the present topsoil pile. No map was submitted to represent the extent of recovery in this location.

Compliance:

The Applicant is not in compliance with this section. The proposal does not contain a soils map of a sufficient scale to guide the Division or Applicant in making topsoil handling decisions.

The calculations used to arrive at a figure of 360 cu yds from the streambank/ridge must be submitted.

The Applicant has stressed that the topsoil recovery from the ridge will be limited

by the presence of gravel, cobbles and boulders. Three points need clarifying. First, the Division guidelines regarding the percentage of gravel, cobbles and rocks are for evaluating the potential of soil to be used as **substitute** topsoil. Second, the native topsoil (A horizon) must be salvaged regardless of gravel and cobbles. Third, boulders can be removed at the same time that the large trees and other vegetation are removed. And, provisions have been made to store the boulders at the topsoil storage site.

The soils in the vicinity of the road expansion project are Cumulic Haplustolls. These soils are very deep, found generally at the base of slopes. The A horizon extends downward greater than 41 inches (3.4 feet). The potential for SC3 to harvest topsoil is tremendous. SC3 must plan to harvest all of the A horizons from the streambank, ridge, and underneath the topsoil pile.

Stipulations:

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

**Prior to approval, SC3 shall provide a soil map of the Mine facilities area, based on information gathered from the sampling done at the time of permitting and for the portal expansion and stream culvert expansion. The map must indicate locations of all previous soil test pits and auger holes and the dates of sampling. The map must show soil types and areas disturbed prior to August 1977.**

**Stipulation R614-301-222.100.-(2)-PWB**

**Prior to approval, SC3 shall provide a map, documenting the recovery of topsoil (A horizons). The map must include the areal extent and depths of removal. The map must indicate the total estimated yardage of topsoil to be salvaged from the road relocation disturbance.**

**Stipulation R614-301-222.100.-(3)-PWB**

**Prior to approval, SC3 shall submit the calculations used to arrive at the figure of 360 cu yards of topsoil from the streambank/ridge.**

**Stipulation R614-301-222.100.-(4)-PWB**

**Prior to approval, SC3 shall submit calculations for the topsoil to be removed from underneath the present topsoil pile. SC3 shall submit calculations for all topsoil removal.**

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

Applicant's Proposal:

Soils and rock in the mine facilities area have been sampled on several different occasions as listed below:

LOCATION	DATE SAMPLED	SAMPLE I.D.
Disturbed Soil (pipeline)	11/11/88	No analyses received
Soils, Soldier Creek	1/5/89	1-1, 1-2
Exploration Cut	5/8/89	Overburden Underburden
Yard Expansion	5/11/89	#1 (0-6") #1 (0-12")
Exploration Cut	9/30/89	Overburden Underburden
Soil Below Topsoil Pile	10/16/89	SCS field evaluation
Soil Thickness Survey	12/10/90	10 auger holes to determine topsoil depth
Stream Channel	2/26/91	#1, #2 composites
Portal Development	2/26/91	#3 composite

The soil was identified as a member of the Order Mollisol, SubOrder Ustolls, Great Group Haplustolls, SubGroup Cumulic and the Family of coarse-loamy over loamy skeletal, mixed, mesic.

Compliance:

The Applicant is not in compliance with this section. The Applicant has sampled the soils to be salvaged as topsoil. The results from the sampling of disturbed soil on 11/11/88 were mentioned on page 36, but not submitted with this application.

The results of sampling are scattered throughout the application, rendering analysis of the material difficult. In addition, the analyses that were run varied from sample to sample. Oftentimes, critical information pertaining to acid/base accounting, selenium, boron, sodium concentrations etc. were missing from the lab reports.

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Stipulations:

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

**Prior to approval SC3 must provide results of the sampling of the disturbed soils on 11/11/88.**

**Stipulation R614-301-222.200.-(2)-PWB**

**Organize soil sampling information and data in the 1992 permit renewal submittal due October 11, 1991.**

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

Applicant'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<sub>3</sub>. 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 are 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. No field notes or laboratory results were submitted.

Compliance:

The Applicant is not in compliance with this section. The application describes the use of the pipeline disturbance soils for backfill into the stream culvert. (As requested in stipulation R614-301-222.200, the results of the sampling and identification of these disturbed soils must be submitted to the Division.)

Stipulations:

**Refer to R614-301-222.200.-(1) & .-(2)-PWB**

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

Applicant's Proposal:

The area of expansion is vegetated by Douglas Fir/White Fir, Big Sagebrush/Salina Wildrye, ScrubOak/Salina Wildrye and Mountain brush. A reference area was marked off on the north facing slope east of the portal gulch. (Illustration 10.7.1-1)  
A second reference area for west facing slopes was delineated in the MRP, Sec. 3.7.

Reference areas of note for reclamation are the Main Mine Facilities (Mountain Brush) and the Deciduous Stream Bank reference areas described in Sec 3.7.3 of the MRP.

The Applicant proposes to use the Main Mine Facilities (MMF) and the Deciduous Stream Bank (DSB) reference areas for measuring reclamation success. The MRP contains reports of productivity from a deciduous stream bank community as 912 lbs/acre, a productive community. The MRP states that the upon evaluation, the DSB reference area was not in fair or better condition and therefore, the collected data was not presented in the permit. At that time, SC3 committed "to manage and monitor this reference area until its condition improved."

Compliance:

The Applicant is not in compliance with this section.

Stipulations:

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

SC3 must provide the information gained from recent SCS evaluations of Mountain Brush (MMA) and Deciduous Streambank (SDB) reference area range conditions with the 1992 permit renewal submittal due October 11, 1991.

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

Applicant'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.

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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 Applicant has complied with this regulation.

**R614-301-224.**

**SUBSTITUTE TOPSOIL**

Applicant's Proposal:

Disturbed soil from the pipeline installation was sampled 11/11/88; no laboratory results were submitted with this application. Because the expansion project of 1989 (ACT/007/015/89-B) encountered previously disturbed soils, SC3 requested these soils be classified as substitute topsoil. Additionally, in the approved Amendment (89-B), SC3 stated on page 10-38 of Volume 8 (as revised 9/13/89):

The salvaged soil will be used as backfill around and over the proposed culvert to be emplaced in Soldier Creek. After placement the soil will be vegetated using the final/permanent reclamation seed mixture (grass and Forb species only) listed in the revegetation section.

During the 1990 culvert extension project, SC3 did not separately salvage topsoil. The resultant mix of topsoil/subsoil and gravel/rocks will be screened for rock fragments larger than 10-12 inches and used as substitute topsoil. Two composite samples of the materials were taken on 2/26/91.

This proposal states that soils to be used for substitute topsoil "will be and have been segregated" (p.9). Yet, soils designated as substitute topsoil from the portal expansion and stream culvert installation were placed against the culvert as backfill.

Compliance:

The Applicant is not in compliance with this section. Material designated as substitute topsoil must be protected from excessive compaction and other degradation. SC3 did not follow through on the commitment to seed and protect the backfilled substitute topsoil. Instead, the area became a temporary wasterock storage site.

The use of substitute topsoil as backfill negates its potential for topsoil. The soils

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backfilled into the stream culvert extension must be removed from topsoil mass balance calculations.

The topsoil/subsoil mix recently salvaged from the stream culvert extension will be stored and protected as topsoil at the topsoil storage site (to be approved upon receipt of stipulated items).

Stipulations:

**Stipulation R614-301-224.-(1)-PWB**

SC3 must revise the topsoil materials balance calculations to reflect the loss of substitute topsoil material used as backfill, in the 1992 MRP renewal due October 11, 1991.

**R614-301-230.**

**OPERATIONS PLAN**

**R614-301-231.100.**

**METHODS FOR REMOVING AND STORING TOPSOIL**

Applicant's Proposal:

No specific information was provided on machinery to be used. SC3 will haul the material down to the topsoil storage site when it is approved.

Compliance:

Applicant is not in compliance with this section.

Stipulations:

**Stipulation R614-301-231.100.-(1)-PWB**

Prior to approval, SC3 must provide specific methods to be used to salvage and haul the topsoil to the storage site to ensure the protection of the topsoil quality.

**R614-301-231.200.**

**DEMONSTRATION OF THE SUITABILITY OF TOPSOIL  
SUBSTITUTES OR SUPPLEMENTS**

Applicant's Proposal:

It was not stated in the proposal, but it is understood that the soils from the stream channel extension will be used as substitute topsoil material. Two composite samples were taken of this soil on 2/26/91. The pH is 7.7. The EC is between 3.5 and 4.0 mmhos/cm. Water soluble concentrations of Magnesium and

Calcium are approximately equal, about 20 meq/L. The soil has a low SAR value of between 1.65 and 2.30. The texture is a sandy loam. This substitute mix has a high percentage of rock fragments, over 50 percent. The size of the fragments was not determined.

The volume of this material is estimated to be 3500 cu yards on map 4.2-6 (received 4/1/91). It is not clear if this estimate considers the reduction in volume when large (greater than 10-12 inch) rock fragments are screened from the substitute mix.

Compliance:

The Applicant is not in compliance with this section. The material from the stream channel extension is suitable substitute topsoil. The information required in this section must be stated in the proposal.

Stipulations:

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

Prior to approval SC3 must include the substitute topsoil analysis and a narrative of the substitute topsoil volume and transportation to the topsoil storage site.

**R614-301-231.300.**

**TESTING PLAN FOR EVALUATING TOPSOIL  
HANDLING AND RECLAMATION PROCEDURES**

Applicant'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.

**R614-301-231.400.**

**NARRATIVE DESCRIPTION OF THE CONSTRUCTION,  
MODIFICATION, AND MAINTENANCE OF TOPSOIL  
STORAGE & HANDLING AREAS**

Applicant'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.

SC3 states in this submittal that soils to be used for substitute topsoil "will be and have been segregated" (pg.9).

Compliance:

Applicant is not in compliance with this section. SC3 is preparing materials to submit to the Division to come into compliance to gain approval for the topsoil storage area.

SC3 must not only segregate, but must also protect the quality of the topsoil for future reclamation. Material designated as substitute topsoil material cannot be used for backfill of culverts, for waste-rock storage pads etc.

Stipulations:

**Stipulation R614-301-231.400.-(1)-PWB**

**Prior to approval SC3 must have an approved topsoil storage site.**

**R614-301-232.**

**TOPSOIL AND SUBSOIL REMOVAL**

Applicant's Proposal:

The application states that topsoil to be segregated from the expansion amounts to 2014 cu yds (pg.9). It is unclear to the reader if this is an estimated total for the streambank/ridge, and topsoil underneath the existing topsoil pile.

SC3 has stated to the Division that approximately 3500 cu yds of substitute topsoil is being stored north of the storage yard, pending removal to the storage site, although this is not included in the application.

Here is a summary of topsoil yardage salvaged previously.

FROM	PRESENT LOCATION	YARDAGE
Initial Culvert Placement	Topsoil pile below the pipeline road	Unknown
Portal Development	Backfill in culvert	N/A
Stream Channel Extension (substitute)	North of storage yard	3500 cu yds

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SC3 states that "any topsoil that will be segregated ...will be hauled to the topsoil storage site." (p.9) and that "all salvageable topsoil will be removed..." (p.39). Such vague descriptions have resulted in Notices of Violation for failure to comply with the performance standard of saving and protecting all topsoil.

Compliance:

The Applicant is not in compliance with this section.

Stipulations:

**Stipulation R614-301-232.-(1)-PWB**

**Prior to approval, SC3 Must clarify the yardage of topsoil removed from all recent facilities expansion activity: portal development, stream culvert installation and extensions.**

**Stipulation R614-301-232.-(2)-PWB**

**Prior to approval, SC3 must estimate the topsoil yardage to be gained from the road relocation proposal.**

**R614-301-233.**

**TOPSOIL SUBSTITUTES AND SUPPLEMENTS**

Applicant'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.

**R614-301-233.200.**

**ANALYSIS OF TOPSOIL SUBSTITUTES (DIVISION MAY REQUIRE OTHER ANALYSIS OR FIELD TRIALS)**

Applicant's Proposal:

Illustration 10.6.2-1 contains results of samples submitted to the laboratory on 5-11-89 from Soldier Creek and on 5-11-89 from the yard expansion. On page 39 of the submittal, the samples are introduced as substitute topsoil. The samples were characterized by a variety of tests - a hybrid of Tables 1 and 6 of the "Guidelines..". The following is a summary of the information submitted.

Two samples (1-1 and 1-2) were submitted to the lab on 1-5-89 "Soldier Creek soils". The locations of samples 1-1 and 1-2 are non-specifically indicated on map 10.2.4-1. The depth of sampling is unspecified. The method of sampling and date of sampling are unspecified. The parameters reported indicate a pH of 7.5, low proportion of sodium (SAR = 1.0), a moderate amount of calcium (140ppm), a very good nitrogen content, acid potential less than 1, neutralizing potential = 0.7 tons CaCO<sub>3</sub>/Tons of soil, and less than 20% gravel. The limiting factor in this analysis is the reported Boron levels of 290 and 84 ppm for samples 1-1 and 1-2, respectively. For a complete Table 1 analysis, results should have been reported for soluble K, available P, AWC in inch/inch. Alkalinity of the soil extract and an indication of soil color and texture. However, Table 6 lists the analysis suggested for evaluation of topsoil substitutes.

Two samples, #1 (0-6") and #1 (0-12") were taken from the yard expansion for analysis on 5-11-89. The sample location is one of two areas on Exhibit 10.2.4-1. Overall, the results indicate a pH of 7.6, EC of 0.1 mmhos/cm, SAR = 5.5, between 17 and 34% gravel. Insufficient information was provided to clarify the acid/base potential as %Sulfur and the ppm of Boron and Selenium were omitted. The texture was not defined: silt and clays were reported together. The information provided concerning texture is considered adequate for this proposal. However, future proposals will require separate determinations of silt and clay fractions.

Two composite samples were taken from the stream channel excavation material on 2/26/91. The results confirm that this soil has a sandy loam texture, a low EC (less than 4.0 mmhos/cm), equal proportions of calcium and magnesium (approximately 20 meq/L), and an SAR value between 7 and 10. Both samples are suitable for substitute topsoil material with one exception. The percentage of coarse fragments is high.

Compliance:

The Applicant is not in compliance with this section. The material excavated from the stream channel may be used as substitute topsoil with sorting of rocks and boulders larger than 10-12 inches or greater in size.

Stipulations:

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

**Prior to approval, SC3 will commit to treat the substitute topsoil to contain only 10% rock fragments of the 10 - 12 inch or greater size.**

**Stipulation R614-301-233.200.-(2)-PWB**

**Prior to approval, SC3 must commit to resample the Soldier Creek**

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**Soils to clarify the Boron and Selenium levels and SC3 must commit to sampling the yard expansion soils with attention to the hot water soluble boron and selenium values, the percentage of non-sulfate sulfur and calcium carbonate, prior to gaining approval for their use as substitute topsoil.**

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

Applicant's Proposal:

No field trials are anticipated for this road relocation submittal.

Compliance:

SC3 is in compliance with this requirement.

**R614-301-233.340. RESULTS OF PHYSICAL AND CHEMICAL ANALYSIS OF  
FIELD TRIALS, GREENHOUSE TESTS OF TOPSOIL AND  
OVERBURDEN FROM THE PERMIT AREA**

Applicant's Proposal:

The proposal does not contain any reference to field trials or greenhouse tests of topsoil or overburden.

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

Applicant's Proposal:

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

Compliance:

The Applicant is in compliance with section, as SC3 will be submitting items for review and approval.

Stipulations:

**See Stipulation R614-301-231.400.-(1)-PWB**

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

Applicant'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 Applicant 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°.**

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

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

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

Applicant's Proposal:

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

Compliance:

The Applicant is in compliance.

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

Applicant'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 Applicant is not in compliance with this section.

Stipulations:

Stipulation R6143-301-244.-(1)-PB

**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**

Applicant'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 Applicant 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.

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.

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**

**Prior to approval of this amendment, SC3 must specify the source and quality of the topsoil to be used and plans for fertilization in the areas to receive permanent revegetation efforts during construction.**

**Stipulation R614-301-300.-(4)-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**

Applicant's Proposal:

The stated post-mining land use of the mine area is wildlife habitat and commercial business.

Compliance:

The Applicant is not in compliance with this section. The combination of wildlife habitat and commercial business as a post-mining land use is a departure from that stated in section 3.12.3 of the approved Mining and Reclamation Plan. In the MRP, SC3 proposed to "return the disturbed land to the general land uses of the area: rangeland, wildlife habitat and recreational use".

Stipulations:

**Stipulation R614-301-412.100.-(1)-PWB**

**Prior to approval, the post-mining land use stated in the proposal must be the same as that stated in section 3.12.3 of the approved Mining and Reclamation Plan.**

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

Applicant's Proposal:

The air quality Notice of Intent, illustration 10.2.6-1, states that all coal will be surface wet on the conveyance system with water sprays at all transfer sheets. Further, SC3 states that "water sprays will only be used when necessary to allay site specific fugitive dust."

Compliance:

Applicant is not in compliance with this section. SC3 describes water sprays as the best available control treatment (BACT) to counter fugitive dust. Given the wind conditions in Soldier Canyon and the present accumulations of coal fines on site, the Division will request that SC3 use the water sprays before accumulated dust becomes a threat to adjacent, undisturbed areas.

The proposal calls for one silo to have an overflow shoot. Will this be covered to control airborne dust? How much coal can be stored on the ground at the base of this silo?

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Stipulations:

**Stipulation R614-301-421.-(1)-PWB**

**Prior to approval SC3 must agree to utilizing the water sprays to prevent visible accumulations of dust to the mine site and adjacent, undisturbed areas.**

**Stipulation R614-301-421.-(2)-PWB**

**Prior to approval SC3 must provide details on the operation and ground storage capacity around the coal silos.**

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

Applicant's Proposal:

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

Compliance:

Although no certification statement is included with the stamp and signature of the registered professional engineer. The engineer certifying the plans and maps must do so in accordance with the requirements of the regulations.

Any maps, drawings or designs which are submitted in response to deficiencies found in this review by the Division should be certified accordingly.

Stipulations:

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

**Prior to permit approval, the Operator must provide certification statements as required by this Section of the Regulations.**

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

Applicant's Proposal:

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

The Operator has indicated that the primary roads associated with the construction

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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.**

Applicant'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 Applicant 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, should 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 within 120 days prior to the permit renewal due October 11, 1991.**

**R614-301-521.100.**

**CROSS SECTIONS AND MAPS.**

Applicant'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 Applicant is not in compliance with this section. Although the Operator has delineated the disturbed areas proposed by this permit revision, no updated maps or drawings have been provided to indicate the total area disturbed or the entire disturbed area boundaries for all surface facilities. The Operator needs to update and revise those drawings in the currently approved mining and reclamation plan to include the proposed facilities, especially those drawings in the plan that are used to delineate the permit and the disturbed area boundaries. Boundary revisions should 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**

**Prior to permit revision approval, the Operator shall submit to the Division, a set a drawings indicating the disturbed area boundaries within the entire permit area. These drawings shall clearly delineate those areas within the disturbed area boundary which are currently disturbed, those areas planned to be disturbed through additional construction or reclamation, and, those areas within the disturbed area boundaries in which are undisturbed and are not planned to be disturbed by the**

**Operator, but, are included in and incidental to the disturbed area boundaries shown on the drawings. These drawings shall also clearly show the acreages for each disturbed area boundary.**

**Stipulation R614-301-521.100.-(2)-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 within 120 days prior to the permit renewal due October 11, 1991.

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

Applicant'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.**

Applicant'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 10.2.3-3 in the plan.

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 Applicant is not in compliance with this section. Information provided in the proposal is not considered adequate. The letter to the BLM from Carbon County attorney, Nick Sampinos, is not sufficient to demonstrate approval for the relocation of Highway 53. The Operator must provide in the plan, specific approval from the county and indicate that all permits or other requirements have been met prior to 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.

The Operator has commented that they will not be held liable during the operating period for the relocated county road, which will again be relocated at the cessation of mining operations. The county road remains within the disturbed area boundary throughout the life of mining operations. Relocation of the county road upon reclamation will require that the Operator maintain liability for the area throughout the

bond liability period. Although the Operator has indicated that the county will operate and maintain the county road, no agreement or approval is provided by the Operator indicating that such conditions will exist throughout the life of mining operations.

Regardless of such conditions, the temporary relocation of the county road will remain within the disturbed and permit area boundaries for the mining operations and shall be subject to the R614 Coal Mining Rules. Liability for relocation and the responsibility for reclamation of the county road must be maintained throughout the permit and reclamation liability period.

The Division concurs with the Operator that additional liability or risk is associated with having a public road passing directly through the disturbed area boundaries and that events may occur within that area which are beyond the control of the Operator. However, the responsibility and the burden for operations and activities within the disturbed area boundaries must remain with the Operator. Reclamation of the site in accordance with the performance standards, the approved plan and the post mining land use must be proven successful in order for the Division to release bond and liability for that portion of the county road passing through and within the disturbed area boundaries.

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:

**Stipulation R614-301-521.133.-(1)-JRH**

**Prior to permit approval, the Operator must provide evidence of approval from the county and the BLM for relocation of Highway 53. These approvals should include any specific permits or other requirements needed during the relocation of the road.**

**Stipulation R614-301-521.133.-(2)-JRH**

**Prior to permit approval, the Operator must revise the text of the plan to eliminate wording which indicates that Soldier Creek Coal will not be held responsible during the operating and reclamation periods for the county road.**

**R614-301-524.**

**BLASTING AND EXPLOSIVES.**

Applicant'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.**

Applicant'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.**  
**R614-301-526.110.**

**MINE FACILITIES.**  
**EXISTING STRUCTURES.**

Applicant'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.**

Applicant'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

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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:

See R614-301-100.-(1)-SKF

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

Applicant's Proposal:

Information regarding support facilities to be installed in conjunction with the permit revision are shown on Exhibit 10.1.1-1. A short narrative of these facilities is found within the text of the proposal.

Compliance:

The Applicant is not in compliance with this section. 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.

Prior to approval for the coal processing facilities, the Operator needs to present in the mining and reclamation plan, a flow sheet identifying all potential waste materials and water discharges for the system. The flow sheet should also indicate discharges that may be required during maintenance and repair periods. These data should 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.

The flow sheet should indicate the anticipated quantities of undersize and oversize waste materials which will be generated while operating the system at capacity. The plan

should allow for disposal of these waste materials within the permit area when they cannot be re-blended into the coal product for market.

Installation of the coal processing plant involves the use of a thickener to settle and collect fines. Periodically, this thickener will be purged for maintenance. The Operator needs to describe how the process water contained in the thickener tank will be purged when maintenance is required. 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. In the event that 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.

The Operator has not discussed the anticipated increase or results for the modernization and additional coal handling and processing facilities. Any increase in production anticipated or planned should be accounted for in the mining and reclamation plan.

Stipulations:

**Stipulation R614-301-526.220-(1)-JRH**

**Prior to approval of the coal processing facilities, the Operator must submit to the Division, more detailed design information identifying the potential amount of waste and discharge locations for the coal processing plant and address the operation and maintenance of the coal processing related facilities such that they comply with the requirements of R614-301. The Operator shall provide a commitment in the plan that any discharges from the coal processing and related facilities will be in compliance with applicable Utah and Federal laws.**

**R614-301-527.  
R614-301-527.100.**

**TRANSPORTATION FACILITIES.  
ROAD CLASSIFICATION.**

Applicant'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 indicated 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 these roads once they have been constructed.

Stipulations:

None.

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

Applicant's Proposal:

A description of the conveyor system proposed in the new facilities area is described in the proposal in section 10.4.1. 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.

Compliance:

The Applicant is not 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.

No specific or detailed design information relating to the capacity or design of the new transportation facilities to be installed at the site. The Operator did not discuss whether or not the new facilities will replace the existing loadout facilities, or, if the old facilities will be removed. It appears from the drawings provided by the Operator that

the existing conveyor and loadout bin will remain as part of the operating plan. However, it also appears that the existing facilities will remain separate from the installation of the new coal handling and processing facilities. In the event that the existing facilities will continue to be used, will they be integrated in a manner that will allow coal to be processed or stored using the proposed facilities?

The request for Air Quality Approval Order is not specific as to the capacity or the capability of the facilities proposed to be installed following approval of this permit revision. It is not clear in that request, whether or not the tonnage figures and operational capacities listed include the existing facilities at the mine site. The Operator needs to be more clear and precise in the plan, as to what these revisions to the plan will accomplish.

Stipulations:

**Stipulation R614-301-527.-(1)-JRHI**

Prior to permit approval, the Operator shall provide 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 will include as a minimum, 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.

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

Applicant'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 conduction 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 1, 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**

**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.**

Applicant'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.

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

Applicant's Proposal:

The proposal contains limited discussion of this topic. Coal processing waste will be hauled to the wasterock site (pg.10). Coal processing refuse will be held in a refuse bin (p.17). Pad areas (pg.31) will be used for storage.

Compliance:

The Applicant is not in compliance with this section. As submitted, the proposal raises many questions about the handling of coal mine waste. Will thickeners used in the recovery of coal fines and coal refuse be hauled as waste to the waste rock site? What is the anticipated percentage volume of thickeners and coal in the waste at the wasterock storage site? How much coal mining waste will be hauled to the wasterock site annually? Does SC3 anticipate the pad storage to be for waste rock and other coal processing waste?

The waste rock site application has not been submitted, approved or constructed. Therefore, no coal processing activity can occur until such time as the waste rock site is operational.

Stipulations:

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

**Prior to approval, SC3 must design a sampling program for temporarily stored waste and permanently stored waste to be included in the Mining and Reclamation Plan. The sampling program will include the following:**

- a. Waste material temporarily stored at the mine site will be tested for each accumulation of approximately 2,000 tons, if it is going to remain at the temporary site longer than three months.
- b. The sample will be a composite sample of the material hauled to the site or stored at the minesite during the quarter.
- c. The analysis will be run according to Table 6 of the "Utah Guidelines..." and any other analysis as required by the Division.
- d. Materials found to be toxic will be removed to the permanent site within 30 days.
- e. Material placed at the waste disposal site will be compositely sampled on a quarterly basis during periods of deposition at the site, with a minimum of 1 sample per 2000 tons hauled (unless it has already been sampled at the temporary mine site wasterock pile).

**R614-301-536.700.**

**COAL PROCESSING WASTE.**

Applicant's Proposal:

The Operator has included the installation of 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 is section 10.4.1, and in the Request for and 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.**

Applicant'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 opening 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.**

Applicant'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.

Compliance:

The Applicant 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. However, no mass balance calculations have been provided in 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 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. The Operator has indicated that substitute topsoil material has and will be used in the backfilling of the culvert.

The existing plan characterized substitute materials in such places as beneath the employee parking lot, pads and other areas throughout the mine facilities. In accordance with the provisions for previously disturbed areas, this is considered to be prudent practices in locating sufficient substitute topsoil material for reclamation.

However, in newly disturbed areas, substitute topsoil materials must be identified in the plan and segregated and stored in accordance with the requirements for topsoil material. Substitute or alternate topsoil cannot be used as backfill material or in association with the construction of pads, roads or other earthen structures. These materials must be stored and stockpiled in a manner identical to that of topsoil.

Bonding calculations indicate that 1 foot of topsoil material will be needed to cover 5.6 acres of disturbed area meaning that approximately 9,000 cubic yards will be needed for reclamation. Prior to the expansion of these new portal facilities, approximately 12 acres were disturbed for the existing mine facilities. This represents an additional 19,000 cubic yards of topsoil material. Therefore, the total amount of topsoil and substitute or alternate topsoil material required for reclamation of the mine facilities area would be approximately 28,000 cubic yards of material.

The above calculations for topsoil materials required for reclamation are however, fictitious. The Operator has not delineated areas within the disturbed area boundaries in which topsoil materials will not be required for reclamation. Such locations include the area where the county road will be relocated upon reclamation and the relocated stream

channel which will require riprap materials over the area and not riprap.

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.

It is clear however, that a significant shortage of topsoil and substitute topsoil materials exists and that insufficient segregation and storage of these materials has occurred.

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**

Applicant's Proposal:

The proposal states that coal and toxic forming materials will be covered with backfill (p.31).

Compliance:

Coal and acid/toxic forming material used in backfilling of the mine operations pad must be covered with four feet of non-toxic, noncombustible material.

Stipulations:

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

**Prior to approval, SC3 must commit in the Mining and Reclamation Plan to covering all acid/toxic and coal material during final reclamation with four feet noncombustible and non-toxic material.**

**R614-301-712. CERTIFICATION**

Applicant's Proposal:

All maps are certified as required.

Compliance:

The applicant is in compliance with the submitted "maps" but, did not submit all the necessary certified map changes.

Maps, cross sections, and plans are certified as required. Maps delineating watersheds in Figure 2-1 should be re-submitted as a certified map. Small scale "figures" that appear to be reduced versions of certified maps will be considered only as a reference used to identify the area of interest. All design calculations are assumed to come from certified maps.

Stipulations:

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

**Assure that additional maps required in this deficiency review are certified. See R614-301-722.200 and R614-301-731.720.**

**R614-301.722.200**

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

**Applicant's Proposal:**

The Facilities Expansion Disturbance Runoff map Exhibit 10.2.4-1 does not reflect the full extent of the disturbed permit area, and the adjacent areas natural drainage system. The topographic contours of the northwest corner of Watershed-6 indicate that run-off flows into Watershed-11. If there is some water conveyance system at this point that directs flow away from Watershed-6 it should be reflected on Exhibit 10.2.4-1. A complete delineation of Watershed #4 is not presented anywhere in the proposed revision. The proposed changes will require submittal of a map indicating complete surface hydrology design details to replace the Facilities Map in the approved MRP D-213.

**Compliance:**

The applicant is not in compliance with this regulation.

**Stipulations:**

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

**A surface hydrology design map should be submitted for the complete facilities area including the present system, the newly constructed drainage changes, and complete adjacent natural drainage i.e., a complete watershed and drainage map. The applicant must submit these changes prior to approval by the Division.**

**R614-301-728.400.**

**PROBABLE HYDROLOGIC CONSEQUENCES (PHC) DETERMINATION.**

**All comments that are identified as Draft refer only to the draft copy submitted April 1, 1991. All other comments refer to both the Draft and original submittal.**

**Applicant's Proposal:      **Draft****

The Division requested additional information to address the impacts associated with the permit revision. A Draft PHC was submitted. No supplemental information will be requested at this time, however, additional information may be requested with associated projects such as: the proposed Waste Rock Pile and coal preparation facilities. Further analysis of the existing PHC will be made at the midterm permit review or

during the Waste Rock Site review.

Compliance:

The Operator has an approved PHC in the current MRP. The Operator has submitted additional information, in a draft form, regarding hydrologic concerns of this revision. The Operator is in compliance at this time.

**R614-301-731.**

**OPERATION PLAN - GENERAL REQUIREMENTS.**

Applicant'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 includes 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 proposed facilities expansion plan does not adequately address the steps of reclamation operations. The applicant 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. The applicant 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.

Stipulations:

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

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

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

Applicant's Proposal:

Although the applicant has not submitted information regarding any additional discharge points, it is likely that the proposed coal processing plant will require additional discharge points.

The current NPDES program requirements should be checked to assure the present permit for sediment pond discharge is in compliance with the potential changes in discharge due to sediment design 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.

Compliance:

The Operator lacks necessary information to determine compliance of this regulation.

Stipulations:

**Stipulation R614-301-731.222.2.-(1)-SKF**

**The Operator must comply with the requirements of this regulation including all potential discharge locations.**

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

Applicant's Proposal:

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 cover the toxic-forming materials yet, provides no discussion of how 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 not addressed the needs of this regulation in this submittal. 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.

Stipulations:

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

**Prior to approval the Applicant must commit to meet the requirements of this section in the event acid and toxic materials are identified.**

**R614-301-731.720.                    MAPS**

Applicant's Proposal:

No description of the collection and conveyance system for the proposed coal processing facilities is included in this submittal.

Compliance:

The proposed revision is not in compliance with this regulation.

Stipulations:

**Stipulation R614-301-731.720.-(1)-SKF**

**A map showing the water diversions, discharge facilities, and storage facilities will be prepared along with the description of the proposed coal processing facilities required by R614-301-731.222.2 of this deficiency memo on or before approval of the Coal Processing Facilities.**

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

Applicant's Proposal:

All cross sections submitted at this time are considered adequate but, revisions needed to comply with the Stipulation R614-301-733,-742.-(SKF) will require re-submittal of R614-301-731.750.

Compliance:

Cross Sections for the present sedimentation pond are considered adequate.

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

Applicant's Proposal:

The permit application does not describe the measures to be used to protect the inlet end of a ditch relief culvert.

Compliance:

The Operator is out of compliance with this regulation.

Stipulations:

Stipulation R614-301-732.420.-(1)-SKF

Prior to approval the Operator must submit a description of the measures to be used to protect the inlet ends of the ditch relief culverts.

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

Applicant's Proposal: Draft

A particular area of concern is the west bank of Soldier Creek at the downstream end of the By-pass culvert. This area has collected coal fines in the past. The permittee is including a jersey barrier as part of the road relocation design to minimize deposition of coal fines in this area.

Compliance:

The permittee is in compliance with this regulation. It is recommended that this design be submitted in the proposed revision.

Stipulations:

None

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

Applicant's Proposal:

The applicant 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 culvert installation, an attempt should be made to divert the runoff to the sedimentation pond. According to the MRP, the existing ASCA was described as impractical because it was a remote site, and because no further disturbance was planned for the area. Barring that these two factors have changed the ASCA needs to be re-

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addressed.

Because the Sedimentation pond is considered the BTCA, an attempt to divert ASCA#3 should be made. If it is still unreasonable to divert the runoff to the sedimentation pond (e.g. large, deep ditches are required), documentation of these difficulties should be summarized in a short paragraph.

The applicant 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 0.4 acres. 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. These changes should be incorporated into the final revision.

The applicant has demonstrated the amount of runoff expected from ASCA #5 to be 0.01 AF. The applicant indicates that all of the disturbed area drainage reports to straw bales. The applicant has ignored the limits of disturbance at the SC bypass culvert outlet. BTCA's used in this area must be addressed. The same applies to the upstream end of the bypass culvert. Sediment control measures used within the limit of disturbance upstream from the culvert inlet must be identified as an additional ASCA.

Stipulations:

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

**The applicant should re-address the factors for keeping the substation and the Fan areas as an ASCA or indicate whether it is reasonable to divert ASCA #3 to the sedimentation pond. The applicant still needs to summarize the total of all ASCA's and the total disturbed area to confirm that the ASCA's are small compared to the total disturbance. The applicant must address the disturbed areas at both ends of the by-pass culvert to indicate the BTCA's used, and identify these areas as ASCA's. These stipulations must be addressed before approval of the Surface Facilities Expansion Area can be granted.**

**R614-301-733.**

**SEDIMENTATION PONDS**

Applicant's Proposal:

As discussed in the telephone conversations between Rick Summers (DOGM), Johnny Pappas (SC3), and Tom Suchouski (Earthfax for SC3) on April 17, 1991 and April 19, 1991, the sedimentation pond will require additional analysis to comply with

regulations R614-301-742 and 733. A comparison between the Divisions and the Operators analysis of the sediment pond design indicated as much as 30% variance in the ability of the existing spillway/decant system to handle the peak flow. This variance is due to the difference in the orifice coefficient used.

Additionally, the designs submitted contained a few discrepancies that should be clarified. One, the maximum height of the embankment does not match the value indicated on our cross sections (6656.2 ft. v.s. 6656.3 ft.). Two, the length of pipe and the height of pipe used in the spillway flow determination do not match the cross section we have on file (drawing B127 revised 02/24/87). Three, two differing values are used for the area of Watershed #4, 9.9 acres and 9.1 acres. Four, the complete area of Watershed #10, the sediment pond, should be included in the drainage design. These discrepancies should be corrected.

Compliance:

The 30% variance in the Peak Flow Design indicates that the sediment pond is not in compliance with R614-301-733 and -742. Because of the variance in design, a reanalysis of the pond design is necessary. The Operator would be advised to consider allowance for future expansion in the pond design.

Stipulations:

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

**The Operator must submit design changes and must meet R614-301-713 and R614-301-514.300 before approval can be granted by the Division. (Please note additional discrepancies listed in paragraph 2 above).**

**R614-301-742.311.                    DIVERSIONS**

Applicant's Proposal:            **Draft**

The reference to Ditches 3 and 4 in the Draft submittal, regarding the disclaimer to ditch maintenance, must be deleted.

Compliance:

In order to remain in compliance with this regulation, do not include paragraph 2 on pg.35a "Draft" document describing a ditch maintenance disclaimer into the revision.

Stipulations:

**None.**

**R614-301-745,-746                      DISPOSAL OF EXCESS SPOIL. COAL MINE WASTE.**

Applicant's Proposal:

No approved waste rock disposal site currently exists within the permit area. The Operator is proposing a permanent waste rock disposal site that must meet the requirements of R614-301-745 and -746.

Compliance:

The Operator is presently approved for permanent disposal of waste rock material in underground workings only. The Operator is not in compliance with this for temporary storage or permanent storage above ground.

Stipulations:

See R614-301-536.700.-(1)-(JRH).

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

Applicant'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 in to 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 be 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 has 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 cost 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

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yd x \$/sq yd in item D.). Adjustment to costs, quantities, escalation, and inflation factors used by the Operator in determining these bond amount 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 exiting 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 calculations which encompass all existing and proposed mining and support facilities and proposed facilities anticipated within the next permit term by October 11, 1991.**