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The Energy People

KEN PAYNE
VICE PRESIDENT &
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Original

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D. Haddock
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AUG 24 1992

DIVISION OF
OIL GAS & MINING

August 19, 1992

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

Dear Mr. Haddock:

We have reviewed the 58 page Permit Renewal Deficiency document for the SUFCO mine. A number of responses have been formulated, but questions have arisen on a number of others. Enclosed is a list of the deficiencies. The deficiency is listed with SUFCO's response or question concerning the deficiency. Please review SUFCO's responses and clarify the outstanding issues.

Direct questions to Wess Sorensen our Chief Engineer, who is coordinating the response to the deficiencies.

Sincerely,
SOUTHERN UTAH FUEL COMPANY

Ken Payne
Vice President and General Manager

KP/WKS:jad#331

Southern Utah Fuel Company

A SUBSIDIARY OF THE COASTAL CORPORATION
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**TECHNICAL DEFICIENCY REVIEW
PERMIT RENEWAL**

SOUTHERN UTAH FUEL COMPANY

COMMENTS

R645-301-120 Permit Application Format and Contents:

Deficiencies:

1. Provide legible Water Quality data for Appendix H-A, page 1, located in Appendix 7-2 Hydrometrics reports Volume 9; and provide legible Plates H-I, H-II, and H-III located in the 1981 Supplement on a map of adequate scale. Compiled well elevation data must include the month sampled on presented graphs.

Response:

SUFCO will respond accordingly

R645-301-121.200. Be clear and concise:

Deficiencies:

1. SUFCO must modify the text of page 5-15 to reflect the accurate location of the Quitchupah ventilation entry.

Response:

SUFCO will make correction.

R645-301-140. Maps and Plans:

Deficiencies:

1. SUFCO must revise or modify Plates 5.1 to provide information on the above ground disturbance prior to 1977; Plates 5.2A and/or 5.2B to indicate areas of contemporaneous reclamation mentioned on page 3-41 and 3-46 of the MRP; and Plate 5.3 to accurately portray the disturbed area boundary.

Response:

SUFCO will respond accordingly.

R645-301-222. Soil Survey:

Deficiencies:

1. SUFCO must revise Plate 2-1 to show the soil sampling locations within and immediately adjacent to the disturbed area: define spoil slopes, rubble slopes, native soils, and rock outcrops; and revise Plate 3-1 to portray the locations of the vegetation and soil sampling sites as described in the text of Appendix 2-2: include all information required on USGS maps, such as contour intervals, roads, trails, streams, Township and Range, etc.
2. SUFCO must identify within Chapter 2 of the MRP which supporting documentation from Appendix 2-2 and 2-3 applies to the soil sample locations described on the revised Plate 2-1.

Response:

- 1 & 2. Soils information that was submitted with original permit was adequate. SUFCO does not believe all sampling locations are known. A review of data is in process. It may not be possible to show locations.

R645-301-224. Substitute Topsoil:

Deficiencies:

1. SUFCO must identify contemporaneously reclaimed areas which will be redisturbed for substitute topsoil on a map and in the plan and distinguish these areas as interim revegetation/substitute topsoil storage.
2. SUFCO must provide within the text of the MRP: a) an evaluation of the soils which are presently within the pad, which have potential for substitute topsoil use and which are the best available material within the fill for cover; b) a commitment in Chapter 2 of the MRP to test all proposed substitute topsoil material at the time of final reclamation according to Table 6 of UDOGM's 1988 "Guidelines for the Management of Overburden and Topsoil," and including the analysis of sulfate and chloride concentrations prior to utilizing any pad fill for substitute topsoil; C) an outline of the number of tests to be conducted based on the volume or tonnage of substitute topsoil to be utilized during final reclamation.

3. SUFCO must correct the first statement made in Section 2.24 to indicate that substitute topsoil will be selected from pad fill and contemporaneously revegetated slopes, and correct the last statement of Section 2.3.2.7 to indicate that importation of substitute topsoil may be required depending upon revegetation success according to the standards of R645-301-356.

Response:

1. SUFCO will respond accordingly.
2. a) Analyses of soils within the pad that have been sampled is included in Appendix 2-3. b & c) Commitment to use only after regulatory approval is set forth in 2.3.3.3 p. 2-15.
3. SUFCO will respond accordingly.

R645-301-230. Operation Plan:

Deficiencies:

1. SUFCO must indicate in the text of the MRP: a) an average depth which will be salvaged from proposed disturbances or indicate that a topsoil survey will be conducted prior to new disturbance (page 4-10); b) that minor disturbances where SUFCO does not anticipate topsoil removal will meet with prior UDOGM approval (Section 2.3.2.4); c) that salvaged and stored topsoil will not be moved without prior approval from the Division Section 2.3.4.3; d) that the A, B & C or A & AC & C horizons will be collectively segregated from the proposed disturbed area and stockpiled (Section 2.3.2.5 on page 2-13).
2. SUFCO must indicate in the text of the MRP the volume of topsoil presently stored at the mine facilities and subsoil stored in the substation binwalls intended for final reclamation cover material.

Response:

1. a) SUFCO has committed to collect A soil horizon, B & C horizons and stockpile separately provided the thickness is greater than 6 inches. Where soil horizons are less than 6 inches the horizons will be collected as a unit and stockpiled. This commitment was made (pg. 2-10) because of the variable thicknesses of topsoil at the surface facility, and SUFCO's desire to collect all suitable soils.
b) Is this required in regulations?
c) Is this required in regulations?

d) SUFCO has committed to segregate a horizon when greater than 6" from B & C horizons (section 2.3.1.1) B & C horizons will be collected as a unit because of poor subsoil quality.

Response:

SUFCO will respond accordingly.

R645-301-240. Reclamation Plan.

Deficiencies:

1. SUFCO must commit to ripping the subsoil to an 18-24 inch depth and applying substitute topsoil cover depths of 12 inches on slopes less than or equal to 2h:1v; and ripping to a depth of 12 inches and applying substitute topsoil cover depths of 8 inches on slopes greater than 2h:1v up to the angle of repose, 1.5h:1v.

Response:

Not required by regulations.

R645-301-230. Operation Plan:

2. SUFCO must commit to applying an amendment (such as alfalfa hay at a rate of 3T/ac) and a complete (N, P, K) fertilizer to the topsoiled slopes prior to scarifying to a depth of 6 inches; as well as gouging with a track hoe all slopes less than 2h:1v after topsoiling and prior to seeding.

Response:

Not required by regulations

3. SUFCO must provide the Division with cut and fill volumes derived from Plate 5-3 Post Reclamation Surface Configuration and Plate 5-4 Post-Reclamation Cross-Sections submitted with the MRP or revise Plates 5-3 and 5-4 to show cross-sections from which reported cut and fill volumes were calculated; and provide within the MRP a supporting discussion of the angle of repose for the spoil slopes to which topsoil will be applied.

Response:

This information is already provided in Appendixes 2-4 and 2-5 at the level of detail required by the regulations.

R645-301-321. Vegetation Information

Deficiencies:

1. The plan must clarify if the information from vegetation sampling site 13 is to be used as a reference area, to validate similarity to a reference area, or if the baseline data method is to be used for the riparian area by the pond.

Response:

SUFCO will respond accordingly.

2. The plan must contain productivity information for the riparian reference area and adequate information to predict the potential for reestablishing vegetation in riparian areas. This should consist of, minimally, productivity estimates, woody species density, and vegetative cover by species measured by methods contained in the "Vegetation Information Guidelines Appendix A".

Response:

SUFCO will respond accordingly.

3. The plan must include a map which shows locations and boundaries of reference areas which will be used in determining revegetation success. Plates 5-2A and 5-2B are suggested.

Response:

SUFCO will respond accordingly.

645-301-322. Fish and Wildlife Information:

Deficiencies:

1. The plan must contain a plan for monitoring known raptor nests.

Response:

SUFCO will evaluate with DWR.

2. The plan must clarify the commitment for future monitoring of biological aquatic resources.

Response:

Baseline has been compiled. No fisheries exist in permit area. Therefore no need to monitor.

3. The application must identify whether or not there are crucial periods of deer and elk use at the waste rock site and what steps the Operator will take to protect wildlife during critical periods.

Response:

This has been addressed already (Exhibit 3 Vol. 3).

R645-301-330. Operation Plan:

Deficiencies:

1. SUFCO must include a plan for monitoring effects of underground mining on vegetation within the permit area to satisfy the requirements of federal leases. Color infrared photography is recommended.

Response:

SUFCO will monitor with CIR every 5 years.

2. The Applicant must present a plan to mitigate loss of wildlife habitats lost due to disruption of surface and ground water by subsidence. Water rights that may be used for this should be identified, but, more importantly, appropriate agencies, such as the Division of Wildlife Resources and Division of Water Rights should be involved at this time in identifying possible problems and planning the mitigation.

Response:

SUFCO will respond accordingly.

3. The Applicant must develop an impact avoidance or mitigation plan for the protection of raptor nests that could be affected by subsidence.

Response:

SUFCO will evaluate with DWR and FWS.

R645-301-341.210. Species and Quantities of Seeds and Seedlings:

Deficiencies:

1. The unit for the quantity of seed to be planted at the portal area needs to be further specified, i.e. pounds of pure live seed per acre.

Response:

SUFCO will clarify quantity.

2. Pinyon and juniper must be replaced in the tree and shrub seedling planting mix by other more desirable species. Saskatoon serviceberry, Gambel oak and curlyleaf mountain mahogany are recommended.

Response:

The reclamation mixture will be changed from previous approved mix.

R645-301-341.220. Seeding and Planting Methods:

Deficiencies:

1. Hydromulch must not be mixed with seed in hydroseeding operations except that a small amount could be used for the hydroseeding equipment operator to determine where seed had been broadcast. Fertilizer must not be mixed in the slurry.

Response:

Is this prohibited by regulations?

R645-301-341.230. Mulching Techniques:

Deficiencies:

1. The amount of straw mulch to be used at the waste rock site needs to be increased to 1.5 tons to 2 tons per acre unless the Applicant can demonstrate that using a lower quantity is adequate.

Response:

Lower quantity has been adequate in the construction disturbance reclamation and all reclamation performed to date.

2. Unless the Applicant demonstrates that hydromulch is at least as effective in controlling erosion and assisting in establishing seedlings, the mulching method for the portal site needs to be changed to 1.5 to 2 tons per acre of straw or hay anchored through netting or using a chemical tackifier.

Response:

Hydromulching is not prohibited in the regulations and was satisfactory to the Division in actual applications during the first permit term. Since portal reclamation is more than 25 years away, must this demonstration be done for this review?

3. The Commitment to use erosion matting on unstable slopes needs to be included in Chapter 3.

Response:

Already in Chapter 2.

R645-301-341.250. Success Determination Measures:

Deficiencies:

1. If the "Vegetation Information Guidelines" are included in the plan, the most recent edition must be used.

Response:

Guidelines in effect when plan was developed were included in Appendix for reference.

2. If the plan is to give a level of confidence for determining revegetation success, the confidence interval specified in R645-301-356.120 must be used.

Response:

R645-301-356.120 specifies the statistical confidence method required by regulation which SUFCO will adhere to but we do not believe it is necessary for the MRP to re-recite the regulation standard.

3. The plan must include the woody species density standards for success, 20,000 stems per acre for the waste rock site and 1000 trees and shrubs per acre for the mine site, that have been obtained through consultation with Wildlife Resources.

Response:

SUFCO will respond accordingly.

R645-301-341.300. Revegetation Feasibility Demonstration:

Deficiencies:

1. SUFCO must provide a schedule for establishing revegetation test plots to demonstrate the suitability of substitute topsoil and final revegetation techniques at the mine site.

Response:

SUFCO will respond accordingly.

R645-301-342. Fish and Wildlife:

Deficiencies:

1. SUFCO must provide a discussion of enhancement measures that will be used during reclamation and the postmining phase of operations or a statement explaining why enhancement is not practicable.

Response:

SUFCO will provide a discussion.

R645-301-411. Land Use Environmental Description:

Deficiencies:

1. The plan must contain a description of the land use classification, if any, under local law of the permit and adjacent areas.

Response:

Local law does not classify land use in permit area; therefore, it is not included.

R645-301-412. Reclamation Plan:

Deficiencies:

1. The plan must contain a copy of comments concerning the proposed postmining land use from the legal and equitable owners of record of the surface of the permit area.

Response:

Comments of other land owners is included in Appendix 1-1 as right of entry. (UNELCO letter 1/15/81). Reference will be added in section 4.1.2.2.

2. The Applicant must adequately address the requirements of R645-301-270 if approval of an alternative land use for retained highwall is sought. To obtain approval without meeting the requirements for an alternative land use, the plan must demonstrate that retained highwalls replace cliffs eliminated due to mining activities or that the highwalls were created prior to SMCRA.

Response:

All high walls were created prior to 1977 and SMCRA.

**R645-301-500. Engineering:
R645-301-512. Certification:**

Deficiencies:

1. The Applicant must provide the Division with cut and fill volumes derived from Plate 5-3 Post Reclamation Surface Configuration and Plate 5-4 Post-Reclamation Cross Section submitted with the MRP or revise Plates 5-3 and 5-4 to show cross-sections from which reported cut and fill volumes were calculated.

Response:

Cut and fill volumes and cross-sections are contained in Appendices 2-5 and 2-4 respectively.

R645-301-514.300. Impoundments:

Deficiencies:

1. The Applicant needs to cite the R645 rules, instead of R614.

Response:

All reference to R614 will be changed to R645.

R645-301-521.100. Cross-Sections and Maps:

Deficiencies:

1. The Applicant needs to show the location of all openings to abandoned and active workings, and the location of electrical transmission lines and pipelines.

Response:

Plate 5-1 shows openings to abandoned works and active works in normal fashion for mine maps. Does this need further clarification? Plates 5-2A and Plate 5-2B show electrical lines and pipelines as described in text.

R645-301-522. Coal Recovery:

Deficiencies:

1. The applicant will submit his resource recovery protection plan as an appendix to the permit application.

Response:

An approved R2P2 is on file with the BLM and has been determined to be adequate.

R645-301-525. Subsidence:

Deficiencies:

1. The Permittee shall mark and identify the two experimental room-and-pillar extraction areas on an appropriate map and that map shall be referenced in the PAP narrative.

Response:

Room-and-pillar areas were not experimental. However areas will be marked on Plates 5-1.

R645-301-525.100. Subsidence control Plan:

Deficiencies:

1. The Permittee needs to address R645-301-525.160 by describing the measures that will be taken to mitigate or remedy any subsidence related material damage to the land or structures.

Response:

SUFCO will respond accordingly.

2. The applicant will commit to submit a copy of the subsidence survey in his annual report.

Response:

Already in text that report will be given to DOGM annually (pg 5-23 paragraph 2).

R645-301-525.140. Monitoring:

Deficiencies:

1. The locations of the subsidence monitoring points shall be shown on Plate 5-10 as indicated in the PAP.

Response:

SUFCO will add points on plate 5-10.

R645-310-525.200. Subsidence Control:

Deficiencies:

1. The Applicant needs to submit a report to the Division explaining why some support pillars failed and what steps have been taken in pillar design and construction to prevent future failure.

Response:

SUFCO will respond accordingly.

R645-301-526. Mine Structures and Facilities:

Deficiencies:

1. The Applicant will include the location of existing structure in the text as required by R645-301-526.111.

Response:

Shown on Plate 5-2A and 5-2B.

2. The Applicant will provide plans or photographs of the structures and their current conditions as required by R645-301-526.112.

Response:

Why is this needed? Structures are already completed and owned by Coastal. Plan dimensions are shown to scale on Plate 5-2A and 5-2B. All structures are to be removed for reclamation.

3. The beginning and completion dates for the existing structure must be given as required by R645-301-526.113.

Response:

Best dates known are included in Table 5-4. This was adequate on prior permit approvals.

R645-301-527.100. Roads:

Deficiencies:

1. The Applicant must classify the roads in the mine complex as either primary or ancillary and what their post mining status will be.

Response:

SUFCO will respond accordingly.

2. The Applicant must submit certified designs of the roads in the mine complex.

Response:

Road alignment and grade are shown on Plate 5-2A.

R645-310-527.200. The plan must include a detailed description of each road, conveyor,...

Deficiencies:

1. The Applicant must describe each road and conveyor in the mine complex.

Response:

Location of roads and conveyors are shown on Plate 5-2A.

2. The Applicant must describe how the roads in the mine complex will be maintained.

Response:

SUFCO will respond accordingly.

R645-301.531. General Operational Design Criteria and Plans:

Deficiencies:

1. The Applicant will provide additional information on the potential effects of subsidence from past workings on all structures.

Response:

R645-301-531. refers to ponds and impoundments; therefore, regulation has been addressed.

R645-301-533. Impoundments:

Deficiencies:

1. The Applicant will demonstrate to the Division that all the impoundments are stable in the event of a rapid drawdown.

Response:

SUFCO will respond accordingly.

R645-301-553.620. Approval is obtained from the Division for incomplete elimination of highwalls in previously mined areas in accordance with R645-301-553.500;

Deficiencies:

1. SUFCO must provide a surface map with the highwall retention request of Appendix 5-2 to outline surface disturbance previous to the 1977 SMCRA regulations prior to receiving Division approval of this practice.

Response:

Map will be provided.

R645-301-553.100. Disturbed Area Backfilling and Grading:

Deficiencies:

1. SUFCO must provide a surface map with the highwall retention request of Appendix 5-2 to outline surface disturbance previous to the 1977 SMCRA regulations prior to receiving Division approval of this practice.

Response:

Map will be provided.

2. The Applicant must supply the Division with information on which the highwalls are to remain, when they were created and the justification for their retention.

Response:

SUFCO will respond accordingly.

3. The Applicant needs to provide the Division with an alternative reclamation plan that does not involve the retention of highwall.

Response:

Such alternatives were investigated and reviewed with the Division during the 1987 review. Conclusions reached at that time was that such an alternative was not feasible.

4. The Applicant will commit to cover all foundations and asphalt with a minimum of four feet of cover.

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Response:

Where is this in regulations?

R645-301-621. Geology within the proposed permit and adjacent areas:

Deficiencies:

1. The geology of the permit and adjacent areas is found in two different parts of the PAP. The Permittee shall cross-reference Volume 2, Chapter 6 with Volume 3, Part 2.

Response:

SUFCO will reference.

**R645-301-622. Cross-Sections, Maps and Plans.
R645-301-622.200. Nature, depth, and thickness:**

Deficiencies:

1. The Permittee shall show thickness and nature of the coal seams to be mined and the Duncan seam, interburden, and strata above and below the seams to be mined on isopach maps, multiple cross-sections, or other suitable maps, cross-sections, or plans. If this information is in the R2P2 then the Operator needs to reference the R2P2.

Response:

SUFCO will reference R2P2 and clarify Duncan Seam.

R645-301-623. Geologic information:

Deficiencies:

1. The Applicant shall remove the request for confidentiality from this section of the PAP. The Permittee may request that certain information in other parts of the PAP be held confidential, but the procedures in R645-300-124 should be followed.

Response:

SUFCO will respond accordingly.

- R645-301-624.300. Samples from test borings or drill cores.**
R645-301-624.310. Logs of drill holes.
R645-301-624.320. Chemical analyses for acid- or toxic-forming materials:

Deficiencies:

1. Information on ground water that was obtained during drilling of boreholes shall be included in the PAP. If no ground water information was obtained, the reasons for this should be discussed.

Response:

When boreholes were drilled, either no water was encountered, or its occurrence was not noted on logs included in Appendix 6-1.

2. The Permittee shall make a clear and concise summary of the waste rock analyses performed to date. Locations from which samples were taken shall be clearly identified and, if needed, marked on a map or mine plan.

Response:

Waste rock site is sampled throughout the quarter as material is put in place. A composite sample is analyzed quarterly.

3. The Permittee shall clarify the notification and mitigation plan(s) described on page 3.3, Volume 3.

Response:

SUFCO will clarify.

R645-301-624.340. Thickness and engineering properties:

Deficiencies:

1. The Permittee shall include information necessary to determine pillar strength and prepare the subsidence control plan, such as thickness, strength and other engineering properties of rock above and below the coal seams to be mined and the engineering properties of the coal. Current information on rock and coal, such as that obtained during the advancement of mains and laterals into new areas, shall be incorporated into the data used to make these determinations.

Response:

SUFCO does not routinely collect geotechnical data on roof, floor and coal. A commitment to use such data if and when it becomes available in engineering applications will be inserted in the PAP.

2. The PAP shall include an analysis of the failure of the non-subsidence design in Area 7 and shall show how the results of that analysis have been incorporated into the current non-subsidence design.

Response:

SUFCO will respond accordingly.

3. Maps 1 and 2 from the 1990 Subsidence Report should be included in Appendix 5-4.

Response:

Maps are included in annual report which is and has been submitted to the Division; why duplicate in PAP? They are outdated after the first year.

R645-301-700. Hydrology.

R645-301-722.100. Location and extent of subsurface water:

Deficiencies:

1. The Operator must remove the reference that North Horn is not considered an aquifer (although it may be recognized as relatively insignificant) or, prove that it does not store and transmit water in sufficient quantities for a specific use.

Response:

SUFCO will evaluate.

R645-301-722.200. Location of surface water bodies:

Deficiencies:

1. Provide or reference the 1981 water resource survey information or more recent survey, from the permit and adjacent area (previously Map 6-1 from the MRP also found in Appendix 7-2).

Response:

Information is in Appendix 7-2. Reference in section 7.2.2.2 will be added.

R645-301-722.400. Cross-Sections and Maps

Deficiencies:

1. Provide the depth of the wells identified in Table 4.7.1-1, page 4-10 Volume 3.

Response:

Depth of wells is not available to applicant.

2. Provide the locations of all water rights identified on an applicable map. Include those identified at the Waste Rock Disposal site.

Response:

Plate 7-2 shows water rights identified within mine permit area. Three water rights have been identified near Waste Rock Disposal site. The locations are listed in Table 4.7.1-1. An additional map would not provide further clarification.

R645-301-724. Baseline Information:

Deficiencies:

1. Provide a discussion of groundwater seasonal quantity and quality for the waste rock site using information obtained from baseline and operational data.

Response:

Not previously required in two previous approved permit reviews.

R645-310-724-600. Survey of Renewable Resource Lands:

Deficiencies:

1. Provide a survey showing the extent of recharge zones within the permit and adjacent area.

Response:

SUFCO will respond accordingly.

2. Discuss the potential of subsidence to cause material damage or diminution of reasonably foreseeable use of aquifers or areas for the recharge of aquifers, for surface waters as it relates to the recharge zones, include specific discussions of the Blackhawk aquifer as it relates to available information. Include pertinent information gathered by the U.S.G.S. Water Resources Investigations report 90-4084.

Response:

SUFCO will respond accordingly.

R645-301-728. Probable Hydrologic Consequences (PHC) Determination.

Deficiencies:

1. Identify waters to be protected as required by applicable land agencies, such as protected surface resources for the U.S.F.S. and BLM.
2. Correct the discrepancy in the statement on page 3-34, which indicates that monitoring with respect to wildlife watering sources is discussed in Appendix 7-1.
3. Provide information on how and when the Operator will survey or inventory ground water and surface water. The information gathered should be provided to the Division in addition to inclusion in the operation monitoring plan.
4. Remove the statement in the Subsidence plan page 5-30 indicating no significant surface water resources are required to be protected in the permit area. Numerous water rights exist within the permit and adjacent area indicating significant water resources do exist.
5. Address the Potential Hydrologic Consequence of acid and toxic materials, identified in sample analysis for the waste rock site.
6. Expand the PHC to discuss the affects of reclamation activities and post reclamation situations.
7. Change or, justify the statement, "no alteration to perennial streamflow is expected".

8. Specifically address the potential impacts identified by the U.S.G.S. report 90-40-84. Include impacts to aquifer recharge and potential changes in hydraulic conductivities.
9. Address the hydraulic properties of the sealed subsidence cracks.

Response:

SUFCO will respond to above deficiencies.

R645-301-731. General Requirements:

Deficiencies:

1. The Operator will provide a sampling and de-watering plan for the materials removed from the sediment pond.

Response:

SUFCO will develop plan.

R645-301-731.200. Water Monitoring:

Deficiencies:

1. The Applicant has made changes to the water monitoring plan within the renewal application. Approval of this revised monitoring plan is not recommended until additional information is submitted. I suggest the Operator set up a meeting to further discuss the monitoring requirements if the information requested is not clear. **The Operator must continue to monitor according to the previously approved monitoring plan until approval is granted.**

The Applicant must complete the following items:

1. Provide a map and a table summarizing present and past monitoring points and, identify periods of monitoring for each monitoring point.

Response:

Plate 7-3 shows monitoring points. Tables 7-2, 7-3 and 7-4 show monitoring.

2. Continue to monitor under the previously approved monitoring plan until approval for a monitoring plan amendment is granted by the Division.

Response:

Applicant will Comply.

3. Submit a monitoring plan amendment which;
 - a. Justifies the proposed changes in Water monitoring parameters for reclamation and operational parameters based on the PHC, baseline and operational data, construction periods, and requirements for bond release.

Response:

SUFCO will continue as in item #2.

- b. Provides sampling for Boron and Selenium in the waste rock site water monitoring plan.

Response:

SUFCO has started monitoring for B, and Se.

- c. Briefly describes how the monitoring plan addresses each "potential" hydrologic impact and how the data will be used to determine impact/no impact.

Response:

SUFCO will respond accordingly.

- d. Provides a method for in mine sampling that accounts for significant mine water inflows, quantity and quality changes.

Response:

In place with UNPDES Point 003.

- e. Provides a monitoring plan that can identify the potential impacts of quantity and quality of water due to mining on the North Fork of Quitchupah within the permit area.

Response:

SUFCO will respond accordingly.

R645-301-760. Reclamation, General Requirements:

Deficiencies:

1. Provide for complete fill of culverts proposed to be retained rather than removed. Provide the location on the reclamation map and include cover requirements and details of the fill process as required to meet engineering backfilling standards and prevent piping.

Response:

SUFCO will respond accordingly.

2. Justify why the Sediment Pond can not be retained during reclamation.

Response:

SUFCO will respond accordingly.

3. Describe how the Operator will minimize sediment movement off site during construction activities.

Response:

SUFCO will describe.

R645-301-765. Permanent Casing and Sealing of Wells:

Deficiencies:

1. The Permittee shall describe the method used to seal the abandoned boreholes. If they have not been sealed, the Permittee shall prepare a plan and commit to a schedule to seal them or shall demonstrate that they are pre-SMCRA boreholes and are not required to be sealed.

Response:

SUFCO will address.