

0028

TECHNICAL DEFICIENCY REVIEW  
PERMIT RENEWAL

002/005 #2  
rec'd. 7/8/92

COMMENTS

**R645-301-221 Prime Farmland Investigation**

Deficiencies:

1. Skyline must submit the map referred to in the SCS letter of prime farmland determination written on August 29, 1979.

Response:

We have searched for this map but haven't found it.

**R645-301-222 Soil Survey**

1. Skyline must revise Plate 2.11-1 to reflect the most accurate information in the consultant's reports and include cartographic information such as scale, contour lines, streams, and roads.

Response:

Scale can be corrected as it is an obvious error. Map could possible be overlaid over base map that has scale, contour lines, streams, and roads. It is necessary to coordinates on map are not state plan coordinates so any overlay would be a guess at the best.

2. Skyline must search their files for existing information to add to the narrative of Chapter 2.11 of MRP which will expand the description and mapping of the South Fork Break Out and Water Tank Area soils.

Response:

We will look. South Fork Breakout was surveyed by the SCS.

3. Skyline must provide a soils map for the Waste Rock Disposal Site in the MRP and reference this is map in Chapter 2.11 of the MRP.

Response:

Consultant report correlated soil types with vegetative types. Is this satisfactory?

4. Skyline must place reference areas on the Surface Facilities and Permit Boundaries Map 3.2.1-1 and other appropriate maps of a scale which is useful in locating the reference areas.

Response:

We will do this.

5. Skyline must provide a legible soils map of the existing conveyor disturbance and the Railroad Load Out.

Response:

We recognize that these maps in Vol. A-2 do not meet today's regulations and standards. However, the consultant who did this work is deceased. The area has been disturbed for the past twelve years and frankly we don't have a good answer how to address this deficiency.

**R645-301-231.400 Narrative**

Deficiencies:

1. Skyline must edit Table 2.11-1 and Table 2.11-2 for accuracy in computations and resubmit a corrected copy of each Table.

Response:

We will do this.

2. Skyline must include in the MRP and analyses of the topsoil samples taken during construction of the topsoil piles at the Portal and Railroad Load Out areas, which are referenced on page 4-48 of the MRP.

Response:

We will search for these analyses.

3. Skyline must revise Plate 3.2.1-3 to show the boundaries of the topsoil storage pile.

Response:

Reg. R645-301-231.400 doesn't require this.

**R645-301-240 Reclamation Plan**  
**R645-301-242 Soil Redistribution**

Deficiencies:

1. Skyline must edit Table 2.11-2, Topsoil Volumes; Table 4.3-1, Bonding Calculations; all reclamation contour maps; and the narrative to agree on the acreage of surface disturbance for all locations. The estimated values of topsoil recovery (Table 2.11-2) must be checked for accuracy and revised accordingly.

Response:

We will respond to this.

2. Redistribution depths reported by Skyline in Table 4.3-1 must be shown on the appropriate reclamation maps to enable field verification of topsoil depth during redistribution.

Response:

Will this clutter up the maps and is it required in the regulations?

3. Skyline must relate in more certain terms the depth of ripping prior to topsoiling and the time which will elapse between topsoiling and seeding as described on page 4-36 of Section 4.6 of the MRP.

Response:

First of all, is ripping required in the regulations? Ripping was suggested to help with plant establishment. Ripping depth is dependent on many variables such as type and depth of sedsoil, compaction, and etc. We feel the term "suitable" is a much better tool than to state an actual depth which may or may not be actually suitable.

4. Skyline must clarify what is meant by the progressive reclamation (pg. 4-38 and 4-49) at the Scofield Waste Rock Site and revise Map 4.16.1-1B if necessary.

Response:

We will respond to this.

5. Skyline must revise Section 4.6 of the MRP to include the protection of regraded topsoil with mulch at all locations. (Please also refer to deficiency #1 under R645-301-341.100).

Response:

We will respond to this.

6. Skyline must revise Map 4.4.2-1C to show topsoil storage during Phase I reclamation excluded from livestock access.

Response:

We will respond to this.

7. Skyline must provide more information in the reclamation plan, backfilling Section 4.4, concerning fracturing and backfilling of blacktop.

Response:

We will respond to this.

**R645-301-321 Vegetation Information**

Deficiencies:

1. The plan must contain either a summary of vegetative cover, woody species density, productivity, and similarity comparison information for the reference areas and disturbed and proposed disturbed areas or a table to show precisely where this information is located in Appendix A-2.

Response:

This type of a summary would be nice, however, it would be very time consuming and is not required in the regulations.

2. The plan must contain results of recent evaluations of the vegetation on the conveyor bench.

Response:

We will respond to this.

**R645-301-322 Wildlife Information**

Deficiencies:

1. The application must include raptor nesting information for the entire permit area.

Response:

The recent identification of the Northern Goshawk as a candidate for T & E status certainly suggests that this raptor receive special attention. However, as required by R645-301-322.100 the scope and level of the required information should be determined by the Division in consultation with DWR. There is no indication that this has been done. It is suggested that such an all encompassing survey requirement should be evaluated using the potential for damage from subsidence. The applicant would be willing to participate in such an evaluation.

2. Changes to high interest species status of amphibians, reptiles, and mammals with ranges potentially within the permit area as listed in Tables 2.9-1 to 2.9-3 must be updated to the most current information available.

Response:

This will be done.

3. The application must identify goshawks which occur in the area as candidates for threatened or endangered species status.

Response:

This will be done.

4. The Applicant must correct statements that fish are only able to migrate to a point just above Whiskey gulch and state that they have upstream migration access in Eccles Creek up to the Forest Service boundary below the Skyline Mine pad.

Response:

Additional information on fish migration will be added. A statement that fish have access to the Forest Service boundary may historically have been correct, however, at this point in time fish migrating from Scofield Reservoir are denied access to any portion of Eccles Creek for reasons totally unrelated to mining activity.

5. References to data from Seton (1927) must be deleted from the plan.

Response:

A difference of opinion by an employee of DWR with the work done by Seton is not sufficient reason to delete references to Seton's data. The statement by Seton on the elk's need for space does not appear to be the issue. To delete these references would require an inappropriate editing of a consultant's report.

6. The plan must include data from recent Wildlife Resources fisheries surveys.

Response:

It is suggested that the surveys by DWR be referenced and, where appropriate, the data be summarized. Including the reports, where applicability varies greatly from survey to survey, seems to be a waste of binder space.

#### **R645-301-330 Operational Plan**

Deficiencies:

1. As it is developed, the plan for mitigation of loss of wildlife values due to subsidence in the Burnout Creek area must be incorporated into the plan.

Response:

The referenced mitigation plan is a part of a subsidence issue being pursued by the Forest Service. While the applicant has no problem with keeping the Division informed on the progress of this developing activity, inserting the mitigation plan in the M&RP essentially gives the Division modification and approval rights for the plan and potentially places the applicant in a difficult position between agencies. Since the scope of this effort appears to be beyond the requirements of 301-330, it is suggested that the Division pursue requirements related to this issue directly with the Forest Service.

2. The Applicant must commit to repairing any subsidence cracks which are of a size or nature that would cause injury or death to livestock or wildlife.

Response:

This will be done.

**R645-301-341.100 Revegetation Timetable**

Deficiencies:

1. The application needs to contain a definite commitment to time topsoil replacement so that revegetation work can proceed as soon as possible afterward and be within a normal period for planting. The amount of time between topsoil placement and planting needs to be stated.

Response:

We will respond to this.

2. The application must discuss timing of reclamation activities in relation to elk calving in the South Fork breakout area.

Response:

We will respond to this.

**R645-301-341.210 Species and Quantities of Seeds and Seedlings**

Deficiencies:

1. The plan must contain methods to obtain seed and nursery materials of adapted ecotypes or varieties. If the Applicant is to gather seed from near the minesite, provisions for testing must be included so planting rates can be adhered to.

Response:

Regulations do not require "methods" to obtain seed and nursery materials.

**R645-341.220 Planting and Seeding Methods**

Deficiencies:

1. Wording in the planting and seeding methods section of the plan must be revised to clearly define which seeding methods will be used on slopes of which angles and aspects, particularly on south-facing slopes and on other slopes greater than 1.5h:1v. Seed must not be mixed with mulch in hydroseeding operations.

Response:

We will respond to this.

2. The revegetation or soil redistribution section of the application must show methods to be used to roughen the surfaces of slopes in preparation for seeding, particularly those greater than 3h:1v.

Response:

Regulations require "method" use in planting and seeding not for site preparation.

**R645-301-341.230 Mulching Techniques**

Deficiencies:

1. Mulching methods reflecting best technology currently available, whether determined through operational testing or literature sources, must be shown for all areas.

Response:

We will respond.

2. The plan must commit to incorporate best technology currently available for mulching at each permit renewal, especially for steep slopes.

Response:

We will respond.

3. The land use section of the plan must be altered to reflect the mulching techniques discussed in the revegetation section.

Response:

We will respond.

#### **R645-301-341.240 Irrigation and Pest and Disease Control**

Deficiencies:

1. Since irrigation is being used for the conveyor bench, the Applicant must show compliance with the Division of Water Rights requirement to file additional paperwork with them to accommodate irrigation uses.

Response:

We will respond.

#### **R645-301-341.300 Revegetation Feasibility Demonstration**

Deficiencies:

1. The plan must demonstrate revegetation feasibility in those areas where a variance from approximate original contour is proposed.

Response:

Where is this required in the regulations?

2. The plan must be revised to show that quantitative data, including percent cover by life form, woody species density, and shrub survival rates, will be gathered for the conveyor bench in 1992 and annually thereafter for at least the next two years (1993-1994) if the reference area standards are not being approached this year. Further data may be needed after that period, and the reference area may also need to be evaluated for some of these parameters for comparison.

Response:

Why is this being requested many (15+) years before actual reclamation starts plus another 5 - 10 years before bond release will be sought?

3. As part of the discussion on reclaimability, the plan must include information on the source of the shrubs that have been used in reclamation of the conveyor bench.

Response:

Where is this required in the regulations?

**R645-301-342 Fish and Wildlife**

Deficiencies:

1. The Application must include a fish and wildlife habitat enhancement plan for the reclamation and postmining phase of operation or must include a statement explaining why enhancement is not practicable. Consultation with the Division of Wildlife Resources is recommended.

Response:

Enhancement measures have already been incorporated in the reclamation plan and will carry over into the postmining phase of the operation. These measures include channel designs, revegetation activities and species selection. DWR was a major contributor to these earlier decisions.

**R645-301-411 Land Use Environmental Description**

Deficiencies:

1. The Applicant must supply a copy of the first 48 pages of the May 8, 1981 AERC archaeological report or provide adequate information on what is contained in the report, and must address the concerns noted in the conclusion of this report as appropriate.

Response:

A copy of the missing pages will be supplied.

2. The plan must identify wildlife habitat as a premining land use.

Response:

Wildlife habitat will be identified as a premining land use.

**R645-301-413 Reclamation Plan**

Deficiencies:

1. The Applicant must contain comments on the proposed postmining land use for the loadout area.

Response:

We will respond to this.

2. The application must include either a copy of the lease agreement for the conveyor corridor land, excerpts from this agreement, or other comment from this land owner on the postmining land use.

Response:

We will respond to this.

3. The cross reference must show the locations of surface owner or manager comments concerning the postmining land use for all areas.

Response:

We will respond to this.

4. The plan must adequately address the requirements for an alternative postmining land use in R645-301-413.300.

Response:

Only if an alternative postmining land use is proposed. We don't propose any.

5. Skyline must show evidence of consultation with appropriate land use agencies to determine that the potential uses of areas not to be restored to approximate original contour will constitute equal or better economic or public uses.

Response:

It has never been proposed from the beginning to restore everything to approximate original contour. The USFS is the only land agency involved. These proposals have gone through the NEPA process plus original permit application review and one fine year renewal review. It seems if they have concerns they would have said so.

6. The application must include written requests from surface landowners for a variance from approximate original contour so as to render the land, after reclamation, suitable for the postmining land use.

Response:

Same as No. 5.

7. The application must show that the watershed of lands within the proposed permit and adjacent areas will be improved by the coal mining and reclamation operations when compared with its condition either before mining or if approximate original contour was restored.

Response:

This is in conflict with R645-413.110-413.120.

8. Map 4.7.2-1 either needs to be included in the plan if it is needed or reference to it must be deleted.

Response:

We will respond to this.

**R645-301-420 Air Quality**

Deficiencies:

1. Skyline must supply a copy of the PSD (from EPA) and the most recent Notice of Intent (from the Division of Air Quality) for insertion into the plan.

Response:

Copies of the PSD approval letter and the most recent approval order, which supersedes all previous approvals will be provided to demonstrate compliance. The approval order conditions will not be attached as they are not an appropriate part of DOGM approval or inspection.

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

Deficiencies:

1. The Applicant needs to submit certified copies of the above mentioned maps that were submitted, but not certified as required by R645-301-512.200.

Response:

We will certify required maps.

**R645-301-515 Reporting and Emergency Procedures**

Deficiencies:

1. The Applicant must commit to notifying the Division by the fastest means available in the event of a slide which may have a potential adverse effect on public, property, health, safety, or the environment as required by R645-301-515.100.

Response:

We will respond to this.

**R645-301-521.160 Maps and Cross Sections**

Deficiencies:

1. Skyline must show the location of the underground development waste stored during operations on Map 3.2.1-3 and final disposal on Map 4.4.2-1C at the Railroad Load Out.

Response:

We will respond to this.

2. Skyline must provide a cross-sectional, certified map of the Railroad Load Out operations pad and update the narrative to detail the construction of the temporary waste disposal site.

Response:

We will respond to this.

3. Skyline must provide in the MRP a map of operations and surface facilities for the Scofield Waste Rock site, showing sediment control and present configuration.

Response:

We will respond to this.

2. If the Applicant wants a variance from the approximate original contour requirements then he must request a variance and supply the Division with the required certified documents in accordance with R645-302-270.

Response:

We will respond to this.

**R645-301-522 Coal Recovery**

Deficiencies:

1. The Applicant must provide a copy of their Resource Recovery and Protection Plan for all lease areas are applicable as an Appendix to the MRP.

Response:

By agreement with the BLM, our R2P2 document consists of our General Mining Order, comprising 6 large volumes on in-place, mineable, and recoverable reserves; and our Mining and Reclamation Plan. We do not have an R2P2 document as such. The GMO is available to DOGM through the BLM. It does not make much sense to us to add another 6 volumes of information to an already cumbersome set of MRP volumes.

**R645-301-525.100 Subsidence Control Plan**

Deficiencies:

1. The Applicant is not in compliance. The Applicant must identify all lands that have the potential for material damage from subsidence. If any such lands occur outside the permit boundaries then the Applicant must either modify his mining plan or permitted area.

Subsidence outside of the permitted area is prohibited unless the Applicant can demonstrate that the potential for material damage is confined to the permitted area.

**R645-310-525-110 Description of Mining Methods**

Deficiencies:

1. The Applicant needs to provide the Division with pillar design information including but not limited to pillar dimensions, spacing, safety factor and the physical strength characteristic of the coal and adjacent rocks.

A Copy of the Applicant's roof control and pillar design plans must be included as an appendix to the MRP.

Response:

We question the fact that DOGM really needs exact "pillar design" information. We need to discuss this. DOGM also requests that a copy of our roof control plans be included as an appendix. We seriously question the usefulness of roof control plans to DOGM. These plans are designed and written for roof safety and have little, if anything, to do with subsidence. Because of our ground conditions, our roof control plans are commonly revised at least every 6 months. They are written to provide flexibility and maximum safety in various conditions. DOGM would have no way to know which support method was used in which portion of our mines on the basis of our roof control plans.

**R645-310-525.120 Description of Physical Conditions**

Deficiencies:

1. The Applicant is not in compliance. Information on the physical characteristics of the rock and coal must be provided to the Division to assess the potential for subsidence.

Response:

DOGM states that "The Applicant has provided the information specifically stated in the regulations" and then turns around and says "The Applicant is not in compliance". We feel that additional information on physical conditions is not required. How can we not be in compliance even though we have provided the information according to regulations?

**R645-301-525.200 Subsidence Control**

Deficiencies:

1. The Applicant must demonstrate that there is no potential for material damage outside of the permitted area. If the potential exists then the Applicant must either modify the permit area to include all lands that have the potential for subsidence induced material damage or modify the mining plans so that subsidence does not occur in those area.

Response:

DOGM states that "current mine plans have or will cause subsidence to occur outside of the permit area". We have never caused subsidence to occur outside of our permit area and have designed mining so as not to allow subsidence outside the permit area. We do not understand DOGM's reasoning here.

**R645-301-528.310 Excess Spoil**

Deficiencies:

1. If the Applicant claims that spoils in excess of those needed to meet AOC requirements will be generated then he must supply the Division with the mass balance calculations.

Response:

We will respond to this.

2. If the Applicant has excess spoils then they must be disposed of in a site permitted by the Division to accept excess spoils.

Response:

We will respond to this.

#### **R645-301-528.323 Burning and Burned Waste Utilization**

Deficiencies:

1. The Applicant is not in compliance because the rule has not been addressed. The Applicant must submit information demonstrating compliance with this rule.

Response:

We will respond to this.

#### **R645-301-536 Coal Mine Waste**

Deficiencies:

1. The analyses of the Skyline waste rock material (in storage at the Railroad Load Out) must be included in the MRP and its location within the MRP must be referred to on page 4-87.

Response:

We will respond to this.

2. The text must be revised to include current analysis of the waste rock deposited at the Scofield Waste Rock Site and remove conflicting statements regarding the nature of that material.

Response:

Do we need double reporting? Analyses are made every 2,000 Yd.<sup>3</sup> of material and submitted to the Division. Isn't this sufficient?

#### **R645-301-540 Reclamation Plan**

Deficiencies:

1. Skyline must commit to a minimum of 3 feet of non-toxic, non-combustible cover placed on top of waste rock in permanent storage at both the Railroad Load Out and the Scofield Waste Rock sites. This cover will be overlain with the one foot of topsoil (at both sites), for a total of four feet of non-toxic, non-combustible cover material. The Division may waive this requirement based on sampling of the waste at final reclamation, but not before sampling results are known.

Response:

We will respond to this.

2. Skyline must develop a sampling plan for the waste disposal sites located at the Railroad Load Out and Scofield to include the parameters outlined in the Division Guidelines for Overburden Management including: SAR, EC, hot water soluble Se and B, acid/base potential, and percent coal. The plan must include the sampling interval and number of total samples to taken at each site; depth segregation of samples, and a total sampling depth of at least three feet.

Response:

We will respond to this.

### **R645-301-553 Backfilling and Grading**

Deficiencies:

1. The Applicant needs to commit to placing at least 4 feet of cover over foundations and refuse piles during final reclamation.

Response:

Where is 4 ft. of cover over foundations found in the regulations? We will respond to 4 ft. of cover for the refuse pile.

2. The Applicant must provide all information required by R645-301-553.600 in order for the Division to grant a variance to AOC requirements.

Response:

We will respond to this.

3. The Applicant must demonstrate that all reclaimed slopes do not exceed the angle of repose and have a minimum static safety factor of at least 1.3.

Response:

We will respond to this.

### **R645-301-600 Geology**

Deficiencies:

1. The Permittee shall provide sufficient information on the geology and hydrogeology of the waste rock disposal site to assist in determining whether reclamation of this site, as described in the PAP, can be accomplished; and how the regional and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground water at that site. See also other related deficiencies in the discussed in the Hydrology section.

2. The Permittee shall use current data from analyses of roof and floor samples in making a determination of potential toxic- and acid-forming materials and shall incorporate this information into the determination of the PHC.
3. The Permittee shall use current data in determining the thickness and engineering properties of clays of soft rock such as clay shale in strata immediately above and below each coal seam to be mined. Data on coal strength and other properties shall be included to assist in preparing the subsidence control plan.
4. The Permittee shall show elevations and locations of test borings and core samplings on certified maps and cross-sections.

Response:

Much of the information DOGM is requesting does not exist. Some limited work has been done on clay content of roof rock in conjunction with a question raised by Dave Darby a number of years ago, however, no detailed work has been done. Very little if any additional geochemical work on roof and floor samples has been done beyond the original core analyses. We have some question on the amount of data actually required as well as the purpose in providing certain information. If we were to provide additional geotechnical data, the type of data we would provide is dependent on the purpose for which it is to be utilized. For example, if the geotechnical data are to be used for checking pillar stability then the numerical pillar modeling method(s) should be defined to ensure that the proper geotechnical data are provided.

DOGM cites one waste rock sample that shows potentially acid forming rock. We would like to discuss with DOGM the definition of a potentially acid-forming rock and whether one sample in over ten years is justification for concern. The same question is raised for the elevated boron levels of only 3 samples in 10 years.

**R645-301-700 Hydrology**

Deficiencies:

1. The Permittee shall update potentiometric surface maps to show long term impacts due to mine water inflow or other long term factors and, if data are sufficient, seasonal variations. The effects of the water level fluctuations in wells 14-2A and 26-1 on the potentiometric surface should be shown, or if the effects of these fluctuations are not significant this should be discussed in the narrative. The discrepancy as to the direction of ground water flow at W22-2 needs to be resolved.

Response:

The impact of mine water inflow needs to be discussed with Division personnel to clarify requirement. An attempt will be made to resolve these issues.

2. The Permittee shall prepare and certify maps and cross-sections required by R645-301-722 as appropriate, as required by R645-301-712 and R645-301-512.140.

Response:

The appropriate maps will be determined in consultation with Division personnel and necessary certifications made.

3. The Permittee shall propose locations for ground water monitoring wells at the waste rock disposal site to determine the location and extent of ground water at the waste rock disposal site.

Response:

Not previously required. Need to identify rule and purpose for these wells.

4. The Permittee shall determine a real and vertical distribution of aquifers at the waste rock disposal site, the coal loadout, and the conveyor route along the lower part of Eccles Canyon and shall show this information appropriate maps and cross-sections. The Permittee shall discuss the monitoring plan for the aquifers.

Response:

Not previously required. Excessive requirement for areas containing only surface facilities and which is not undermined.

5. The Permittee shall update the spring and seep inventory, especially in the areas of Burnout Canyon, the upper reaches of Upper Huntington Canyon, and other areas where mining has recently occurred or is projected to occur under this PAP. Locations shall be on a certified map.

Response:

The original intent of the spring and seep inventory was to identify those sources which should be monitored on a regular basis. No survey of these sources has been attempted and the flows have not been quantified. If additional or replacement monitoring sources are required a survey of these areas would be appropriate. The need for certification of maps which identify area locations only and lack the precision of a survey must be questioned.

6. If available, depth of the culinary water wells should be shown on a map or cross-sections or given at an appropriate place in the PAP.

Response:

An attempt will be made to comply with this request.

#### **R645-301-721 General Requirements**

Deficiencies:

1. The Permittee shall clarify what constitutes an isolated system and demonstrate that the waste rock disposal site is one, and also demonstrate that there is no hydrologic connection between the site and Pleasant Valley Creek.

Response:

An attempt will be made to clarify this issue.

2. The Permittee shall identify the two previously drilled exploratory holes near the waste rock disposal site and give their location and other information such as drill logs.

Response:

This issue will be investigated and appropriate changes made to the MRP.

#### **R645-301-723 Sampling and Analysis**

Deficiencies:

1. The Permittee shall provide a current listing of surface and ground water rights in the PAP and shall update all applicable tables and maps as necessary.

Response:

The water rights information will be updated.

2. The Permittee shall clarify the current status of the previously pending USFS claims, if a current water rights listing does not make that status clear.

Response:

The status of the pending USFS water right claim will be clarified.

**R645-301-724.300 Geologic Information**

Deficiencies:

1. Deficiencies in this section are covered by Deficiencies 2-4 under Section R645-301-600 Geology.

Response:

Again the question is raised concerning the 3 samples with either potentially acid-forming or toxic-forming characteristics. We need to discuss the implications of only 3 samples in 10 years showing potential acid or toxic forming characteristics.

**R645-301-728 PHC Determination**

Deficiencies:

The Permittee shall identify and give locations for significant in-mine flows and shall include information on those flows in the PHC to help identify potential impacts to ground water flow and the hydrologic balance.

Response:

This is the same request which has been made numerous times in the past and has been rejected as impractical and lacking definition. However, the applicant is willing to revisit the issue with the Division to evaluate the current status.

2. The Permittee shall update the spring and seep inventory for the permit and adjacent areas, in particular the areas where mining occurred under the 1986-1991 permit and where mining will be done under the 1992-1997 permit.

Response:

Previously addressed under R645-301-700 deficiency number 5.

3. The Permittee shall include in the PHC a determination of potential impacts associated with the covered overland conveyor system that is to be installed.

Response:

The issue will be addressed.

4. The Permittee shall incorporate into the determination of the PHC all data collected to date from the flumes or other sources along Burnout Creek and the upper reaches of Upper Huntington Creek. The determination of the PHC to these drainages shall include but not be limited to subsidence of perennial streams and of the loss of Yellowstone cutthroat trout spawning habitat. The Permittee shall incorporate studies done in association with other agencies.

Response:

The approved plan requires inclusion of data from station CS-7 located at the mouth of Burnout Creek only. While the applicant welcomes constructive participation by the Division in studies such as the Burnout Creek subsidence study which is currently being initiated with the Forest Service, it is not appropriate at this point in time to incorporate this study into the mine plan as no results have been obtained to date. As study data become available, these data will be incorporated into the mine plan.

5. The Permittee shall identify the sources of the acid-and toxic-forming materials in the mine and determine whether presence of these materials, in the mine or at the waste rock disposal site, could result in contamination of surface and ground water supplies.

Response:

Material samples showing a tendency toward being acid or toxic forming have been so infrequent and so minor that no pattern is suggested. A possibility exists that these problems may be due to lab error. Such isolated occurrences make source identification all but impossible. The situation will continue to be carefully monitored and action will be taken if appropriate.

6. The Permittee shall add the reference DeGraff, 1976 to the References at the end of the PHC.

Response:

The reference will be added as suggested.

7. The Permittee shall provide information on the x-ray diffraction clay analyses, such as, but not limited to, the number of samples, sample locations, lithology, and the range of values, that are necessary to evaluate applicability of the clay analyses to the PHC determination.

Response:

Limited data of this type are available and are very expensive to obtain. The applicability of these data in PHC determinations in the Skyline Mines situation is of questionable value. It is suggested that further discussions on this issue take place before further effort is expended.

8. The Permittee shall include in the PHC a discussion of the decreased biologic activity in Eccles Creek downstream of the mine. The information in "Eccles Canyon Invertebrate Studies and Rick Dissolution Experiment" shall be used in the determination of impacts of mining and reclamation on sediment yield from the disturbed area, streamflow alteration, and water quality.

Response:

The referenced document will be incorporated as appropriate.

9. The Permittee shall determine if drawdown of the water table will directly or indirectly impact baseflow and spring discharge to all streams in and adjacent to the permit area.

Response:

This issue has been discussed in the plan several times in the past, however, the subject will be re-evaluated based on current data to see if additional information can be added.

#### **R645-301-730 Operation Plan**

Deficiencies:

1. The Permittee shall define the potential for acid and toxic drainage from the mine and include in the PAP procedures to protect surface and ground water quality through handling of acid- and toxic-forming materials in a manner that minimizes formation of acid and toxic drainage at all locations.

Response:

Addressed under R645-301-721 deficiency number 5.

#### **R645-301-731.200 Water Monitoring**

Deficiencies:

1. The Permittee shall add analyses for total settleable solids, total hardness as CaCO<sub>3</sub>, carbonate, and cation/anion balance to surface water monitoring and analyses for total hardness as CaCO<sub>3</sub> and carbonate to ground water monitoring, or shall provide justification for omitting these analyses.

Response:

This deficiency is another attempt by the Division to mandate implementation of "Guidelines". It remains the position of the applicant that the constituents to be monitored should be selected on a site specific basis.

2. The Permittee shall have one set of ground water samples from all ground water monitoring stations analyzed for all parameters on Table 3 of the Division's "Guidelines for Establishment of Surface and Ground Water Monitoring Programs for Coal Mining and Reclamation Operations" (January, 1986). Samples shall be taken during low flow, but in no case shall the sampling be done later than September 15, 1992.
3. The Permittee shall have two sets of surface water samples from all surface water monitoring stations analyzed for all parameters on Table 1 of the Division's "Guidelines for Establishment of Surface and Ground water Monitoring programs for Coal Mining and Reclamation Operations" (January, 1986). One sample each should be taken at low flow and at high flow, but in no case shall the sampling be done later than September 15, 1992.

Response to Items 2 and 3:

These requests are not a part of the approved monitoring program and are clearly not required by the rules.

4. The Permittee shall identify sources of water quality information near Scofield and place the information on the appropriate maps. The nature of the water quality variations in Eccles Creek and Pleasant Valley Creek, mentioned on page 2-33 of the PAP, shall be clarified.

Response:

The issue will be evaluated and appropriate changes made.

5. The Permittee shall repair or replace monitoring wells 14-2b and 22-2-2. As an alternative, if the Permittee can demonstrate to the Division that sufficient ground water monitoring can be conducted without these two piezometers, the PAP should be modified and the wells abandoned following the plan outlined in Section 4.9, volume 3 and State of Utah Rules for Water Well Drillers.

Response:

The wells were drilled primarily for coal exploration with water monitoring as a secondary function. Replacement as water monitoring wells is impractical both from an economical and an operational standpoint. The causes of the failures are probably related to ground movement, either from natural slumping or from subsidence, and would probably also effect replacement wells. Appropriate changes will be made in the plan to reflect the status of these wells.

6. The Permittee shall change page 1-48 to list the Utah Division of Water Rights as the agency permitting water wells and shall further commit to have proper permits and to follow Utah Code Section 73-3-25 and State of Utah Rules of Water Well Drillers for all future installations of ground water monitoring wells and piezometers.

Response:

The suggested change to page 1-48 will be made. The commitment to have proper permits are a part of the process in obtaining the right to drill a new well. Making such a commitment in the mine plan is unnecessarily redundant.

7. In order to demonstrate compliance with R645-301-731.222.2, a copy of the current NPDES permit shall be included in the PAP. Findings of past monitoring shall be listed or summarized.

Response:

The UPDES discharge permit is administered by the Division of Water Quality and is renewed every five years as is the MRP. The two documents are not in phase so including a copy of the discharge permit in the MRP results in a plan which is not up to date for about one half of the permit period. A demonstration of compliance is already mandated by the reporting requirements of R645-301-731.223. A history of compliance is contained in these reports. However, it seems appropriate to include a brief summary of this history in the MRP.

**R645-302-230 Steep Slope Mining**

Deficiencies:

1. The Applicant is not in compliance and needs to address the requirement of R645-302-230.

Response:

DOGM states that "the Applicant is conducting steep slope mining". We are not sure, but based on the group of regulations in which this section is found, it appears that "steep slope mining" likely refers to contour surface mining. We are not conducting "steep slope mining".

**R645-302-321 Alluvial Valley Floor Determination**

Deficiencies:

1. Skyline must provide the Division with a copy of the Dames and Moore report, "Excavation Dewatering Investigation, Load Out Area...", to enable a more thorough evaluation of the alluvial valley at the Railroad Load Out.

Response:

This report dealt with water accumulation in the pits dug for silo construction at the RRLO and was intended as a construction aid. The report has long since been archived and is of questionable value. It is suggested that the division re-evaluate the need for this report before an attempt is made to locate a copy.

2. Skyline must expand the discussion of alluvial valley floors in Section 4-23 of the MRP to include a map and discussion of all agricultural areas adjacent to the permit area. This map must show flood and subirrigated areas.

Response:

This issue has been previously resolved with both the Division and with OSM. There have been no changes sufficient to warrant reopening this issue.

3. Skyline must expand the discussion of the reclamation and permanent storage of waste rock at the Railroad Load Out and the measures to be taken to avoid potential effects on the hydrologic balance of alluvial valley floor.

Response:

The appropriateness of such a discussion will be evaluated and additional discussion held as necessary.