



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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December 8, 1994

Mr. Ben Grimes  
Environmental Coordinator  
Cyprus Plateau Mining Corporation  
P. O. Drawer PMC  
Price, Utah 84501

Re: Mid-Term Review, Cyprus-Plateau Mining Corporation, Star Point Mine,  
ACT/007/006, Folder #3, Carbon County, Utah

Dear Mr. Grimes;

The Division has completed the Mid-Permit term review for the Star Point Mine. The major topics reviewed were: refuse pile reclamation, and contemporaneous reclamation. Enclosed is a copy of the review document. Please examine the review document carefully, making particular note of the requirement sections. Cyprus Plateau Mining Corporation must complete the requirements as indicated, by no later than March 8, 1995.

Please call if you have any questions.

Sincerely,

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

Daron R. Haddock  
Permit Supervisor

Enclosure

cc: P. Grubaugh-Littig  
T. Munson  
S. White  
J. Kelley  
H. Sauer

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**Midterm Review  
Cyprus Plateau Mining Corporation  
Star Point Mine  
ACT/007/006**

**December 8, 1994**

**SUMMARY**

This document constitutes the Midterm Review for the Star Point Mine. The major topics of review were identified in the Division's letter dated August 18, 1994 and are listed below in large bold print. They include, the reclamation of the refuse pile and contemporaneous reclamation. Plan deficiencies requiring correction are found at the end of each section.

**CONTEMPORANEOUS RECLAMATION**

R645-301-352 requires revegetation to occur as contemporaneously as practicable with mining operations. The plan is deficient in that it does not identify those areas which may be available now or in the future for contemporaneous revegetation. Any areas that are no longer being utilized for mining operations such as the #1 Mine area and the side slopes of the refuse pile should be reclaimed.

**Requirements:**

1. The plan must be revised to discuss those areas available for reclamation such as the #1 Mine area and sides of the refuse pile and provide a time schedule for reclamation.

**REFUSE PILE**

The design (both interim and long-term) of the refuse pile and its appurtenant structures at the Star Point Mine requires reevaluation. This reevaluation is made necessary by the likelihood that the present refuse pile design, if implemented, will lead to long-term stability problems, hinder revegetation success, jeopardize final bond release, and ultimately incur long-term liability for the Operator.

**R645-300-133.710, R645-301-553.250 & 300. Reclaimability**

**Analysis**

The refuse pile reclamation configuration, depicted on the Postmining Topography Map (Plate 542.200), show long, continuous, 2H:1V side slopes. The reclamation plan calls for the construction of contour furrows and minor surface pitting (Page 300-135). No application of surface mulch is proposed and the redistribution of topsoil utilizing rubber-tired equipment is contemplated. The implementation of these practices will result in

excessive erosion and poor plant establishment.

The Permittee has established a test plot on the refuse pile (presumably to demonstrate reclaimability) but the intent of the 1982 test plot is unclear since it does not represent the worst case conditions which are steep, long slopes. The plan fails to discuss how 1.5 : 1 slopes up to 200 feet long will be revegetated and meet the requirements of the Performance Standards, R645-301-350. The plan must include a discussion of the methods such as reducing or breaking slopes, temporary and permanent erosion control methods, and contemporaneous revegetation which may allow successful revegetation.

**Findings:**

The Permittee has not adequately demonstrated that reclamation of the Refuse Pile as required by R645-300-133.710 can be achieved.

**Requirements:**

1. The Permittee must either adequately improve the reclamation plan and/or provide additional technical information which will demonstrate that the current and/or the improved refuse pile reclamation plan will fulfill the requirements of the R645 Coal Mining Rules.

**R645-301-731.300**

**Acid- and Toxic-Forming Materials**

**Analysis:**

The Permittee contemplates the redistribution of ten inches, seventeen inches and four feet of topsoil cover on the refuse pile at the time of final reclamation. According to the plan, preliminary examination of the Revegetation Test Plots indicate that the refuse pile may be reclaimed and meet applicable vegetation performance standards with as little as ten inches of "topsoil". The Permittee goes on to state that seventeen inches of topsoil is currently available for the reclamation of the refuse pile.

In addressing Stipulation UMC 817.71-74-(1)-(PGL/DD/RVS) the Permittee has committed to conducting a refuse sampling plan two years prior to the start of reclamation activities on site (see Section 528). The purpose of the sampling plan is to identify areas on the surface of the refuse pile which may be occupied with acid-and/or toxic-forming materials. The Permittee has committed to covering these areas with four feet of non-combustible, non-acid and non-toxic forming material. If the results from the revegetation test plots and vegetative selenium testing demonstrate that less than four feet of cover will meet the goals of reclamation the CPMC will formally request a variance from R645-301-

553.252.

Suspect levels of selenium have been identified within the refuse material disposed of in the refuse pile. The accumulation of selenium in plants grown on the refuse may result in plant uptake, herbivore toxicity and failure to meet postmining land use performance standards.

**Findings:**

The Permittee has not adequately demonstrated that the reclamation plans will control impacts to surface and ground water and minimize adverse effects on plant growth and the approved postmining land use.

**Requirements:**

1. The Permittee must affirmatively demonstrate the adequacy of the proposed refuse pile burial and treatment plans. The Permittee must also identify the source(s) of soil cover and demonstrate the suitability of additional soil cover.

**R645-301-742**

**Sediment Control Measures**

**Analysis:**

R645-301-742 states that the appropriate sediment control measures will be designed, constructed, and maintained using the best technology currently available (BTCA) to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area and to minimize erosion to the extent possible.

The plan currently shows that the ponds will be removed upon initiating reclamation contrary to the requirements of the rules. The Operator is responsible for providing treatments for all reclaimed areas specifically outlining the BTCA for each area which meets the requirements of R645-301-742. The Operator has argued that it is impossible to leave the ponds in place during reclamation because of road removal and subsequent access. On page 700-181 the PAP talks about "silt fence sediment traps used at several locations throughout the permit area to control sediment loss from roadside ditches as discussed in Section 742." This is inadequate to address the requirements of sediment control and erosion control for all reclaimed areas. In particular there are three areas of concern that do not have sediment control adequately addressed. They are the refuse pile, the road cuts and outcrops, and small disturbed areas not draining to a sediment pond. These are discussed below:

## **Refuse Pile**

The current refuse pile design during reclamation calls for long slopes with a minimum cover of 17 inches of substitute topsoil. This cover depth is not adequate for mechanical treatments such as soil pitting or significant surface roughness. The use of long slopes is a major liability in terms of successful erosion control. The Division suggests that the Operator look at lessening slopes and breaking up the length of slope with terraces, or using a greater depth of substitute topsoil so that mechanical treatments such as soil pitting or surface roughness can be applied.

### **2. Road Cuts and Pad Outslopes**

In order to comply with R645-301-742, the Operator must provide erosion control and sediment control for all reclaimed road cuts and pad outslopes providing a feasible plan which addresses what sort of BTCA sediment control measures will be implemented for each area.

### **3. Any Areas not Draining to a Pond**

In order to comply with R645-301-742, the Operator must have an approved plan which addresses sediment and erosion control for all reclaimed areas. The Operator must discuss the BTCA measures which will be used to comply with R645-301-742. This discussion will include how these BTCA measures will be designed, constructed, and maintained. The removal of these structures, if necessary following bond release, will be addressed in this plan.

#### **Requirements:**

- 1) The Operator must supply an acceptable erosion and sediment control plan for the refuse pile. The Operator must provide sediment control for the whole area during reclamation whether it be sediment ponds or BTCA.
- 2) The Operator must provide erosion control and sediment control for all reclaimed road cuts and pad outslopes providing a feasible plan which addresses what sort of BTCA sediment control measures will be implemented for each area.
- 3) The Operator must include a discussion on how the BTCA measures will be designed, constructed, and maintained. The removal of these structures, if necessary following bond release, must also be addressed in the plan.