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January 29, 1999

To: File

Thru: Joe Helfrich, Permit Supervisor-Compliance
 Daron Haddock, Permit Supervisor-Compliance

From: Peter Hess, Reclamation Specialist III PH

RE: Reprocessing of Price River Coal Pile/Placement of Reject on School House Canyon Refuse Facility, Cyprus Plateau Mining Corporation, Willow Creek Mine/Preparation Plant, ACT/007/038, File #2, Carbon County, Utah

The mine fire at Willow Creek has created a problem for said permittee as to how to meet the volume requirements necessary to meet their coal contracts. In order to generate volume, the permittee would like to consider the reprocessing of refuse material that was generated in the Castle Gate permit area, which is the same permit area as is now incorporated within the Willow Creek Mine permit area. This Castle Gate material had been placed on a refuse pile at the Star Point Mine; when placed, it was assumed that this would be the final deposition of the material. The permittee anticipates that it can recover 40% to 55% of the 100,000 tons placed from the Price River Coal pile as saleable product.

Upon conception, Mr. Johnny Pappas spoke with Mr. Lowell Braxton, Director of DOGM with regard as to what stand the Division would take regarding the reprocessing of this waste material. Mr. Braxton referred Mr. Pappas to Mr. Bill Malencik, Reclamation Specialist III responsible for the Star Point Mine site, and myself, Reclamation Specialist III assigned to the Willow Creek Mine site.

On December 28, 1998, Mr. Pappas held a meeting with Mr. Malencik and myself; Ms. Vicki Bailey of EarthFax Engineering was also in attendance. The purpose of the meeting was to discuss the requirements of the R645 rules which had to be addressed in order to modify the Star Point MRP to re-mine the waste rock pile in which the Castle Gate material has been placed. It is the permittee's intent to truck-haul the Price River Coal pile material to the Willow Creek preparation plant, reprocess same through the heavy media plant, and then place the 60 to 45 percent unrecoverable product (60,000 to 45,000 tons reject) on the School House Canyon waste rock facility.

- The School House Canyon waste rock facility is permitted by the DOGM, therefore it must meet all SMCRA requirements regarding design, stability, P.E. certification, inspection requirements, etc. It is assigned a high hazard potential refuse facility number by the U.S. Department of Labor, Mine Safety and Health Administration, thereby making it an MSHA inspectible unit.
- The material from the Price River Coal pile, which was located on the east side of the Price River across from the UHP Peerless Point of Entry, was recovered, transported and placed on the Star Point refuse pile as part of a DOGM Abandoned Mine Lands project. Cyprus did the DOGM a favor by allowing them to do this. According to Mr. Pappas, the acid and toxic forming potential of this Castle Gate material was never addressed by the DOGM, prior to the placement of same on the Star Point pile.
- The chemical characteristics of the Castle Gate material stored at Star Point are more than likely, identical to the material which was being generated by the wash plant when it was processing coal from the sub-3 seam (Price River Coal #3 Mine), the "D" seam, (Price River Coal #5 Mine), and the "D" seam operation at Willow Creek Mine. Coal characteristics and overlying strata characteristics are identical. If any changes are present in the Castle Gate material, they have probably occurred through leaching of high selenium contributing Star Point refuse into the Castle Gate.
- The elevation on the top of the School House Canyon pile was 6464', as of December, 1997. The maximum elevation (as approved by the current design) to which this pile can be raised is 6550', which is the elevation of CGD-5 (undisturbed by pass diversion on west side of pile). Eighty-six feet of vertical height remain to be filled with coal processing reject. The Price River Coal pile reprocessed reject, even if it has accumulated selenium or other acid or toxic forming potential through leaching or some other chemical breakdown process, will be buried deep within the School House Canyon pile, having little or no effect on the revegetation/reclamation potential. Also, ACZ and similar reclamation/revegetation consultants have conducted enough revegetation studies to conclude that high selenium waste piles can be effectively reclaimed/revegetated if covered by four feet of suitable noncombustible plant growth medium. The effect of high selenium in the waste rock is minimal on the revegetation of the area.

The requirements of R645-301-536.500, Disposal of Coal Mine Waste in Special Areas address the requirements of placing coal mine waste materials from activities located outside a permit area with Division (DOGM) approval. Approval is based upon a showing that the following regulations are addressed; R645-301-512.230, 515.200, 528.320, R645-301-536 through 536.200, 536.500, 542.730, and 746.100. It can be argued from either point of view as

to whether this material is from inside the Castle Gate permit, or from outside the Castle Gate permit, as it has been stored within the Star Point permit area. From this Reclamation Specialist's point of view, the Price River Coal pile material is the same stuff, regardless of the fact that it has been stored outside of that permit area for ten years. However, let us address each of the rules relative to 536.500 from a rational, practical point of view.

Regulatory Reference: R645-301-512.230, Certified Design

This rule requires that a disposal facility has a design that is certified by professional engineer experienced in the design of waste rock storage facilities. The School House Canyon facility already meets this requirement. The permittee is fully aware that all approved design requirements for the School House Canyon pile are mandatory, regardless of the nature or source of any reject being placed on same.

Regulatory Reference: R645-301-515.200, Reporting/Emergency Procedures for Hazardous Conditions Relative to Refuse Piles/Impoundments

This rule is already addressed within the Willow Creek MRP as it relates to the School House Canyon pile.

Regulatory Reference: R645-301-528.320, Placement of Waste in a New or Existing Permitted Area

As noted above, the School House Canyon pile has been in existence as a SMCRA permitted site for at least 20 years. The Price River Coal pile reject will be stored within this already existing pile.

Regulatory Reference: R645-301-536. Certified Design.

This requirement is, once again, addressed by the School House Canyon P.E. certified design.

Regulatory Reference: R645-536.100. Current Design Practices

The School House Canyon pile design already meets this requirement as it is already a permitted site under SMCRA.

Regulatory Reference: R645-301-536.110. Minimum Long Term Static Safety/Foundation and Abutments

The School House Canyon pile design already meets this requirement as it is already a permitted site under SMCRA.

Regulatory Reference: R645-301-536.120. Geotechnical Investigation to Ensure Foundation Design Stability

The School House Canyon pile design already meets this requirement; the site exists as a facility meeting all requirements of SMCRA.

Regulatory Reference: R645-301-536.200. Placement in a Controlled Manner

Standard operating procedure places coal mine waste on the refuse pile in a controlled manner, as this is the approved method incorporated within the mining and reclamation plan for this waste rock disposal facility. The placement of the Price River Coal pile reject will not change this procedure.

Regulatory Reference: R645-301-536.210. Ensure Mass Stability/Prevent Mass Movement

The physical and chemical characteristics of the reprocessed reject are the same as the characteristics of the "D" coal seam reject which is constantly being placed on the pile. As the materials are the same, identical mass stability is inherent.

Regulatory Reference: R645-301-536.220. Not a Public Hazard.

The placement of Price River Coal Pile reject on the School House Canyon pile will not change the hazard rating of the School House Canyon pile, as it relates to the MSHA identification number. The pile is not a public hazard. If the pile failed, the material could not flow far enough to threaten life or property outside of the permit area.

Regulatory Reference: R645-301-536.230. Prevent Combustion.

As noted above, the purpose for reprocessing the Price River Coal pile is to extract the 40% to 55% recoverable coal from the material. This will reduce the combustibility of the material, enhancing the conditions to meet this requirement.

Regulatory Reference: R645-301-515.200. Impoundment Hazards.

The placement of Price River Coal pile reject on School House Canyon will have no

affect on MSHA pond 013A, which is the sediment pond located at the toe of the School House Canyon pile. This regulation is not applicable.

Regulatory Reference: R645-301-528.320. Coal Mine Waste in a New or Existing Area

This regulation has already been addressed.

Regulatory Reference: R645-301-536 through 536.200. Coal Mine Waste.

These regulations have already been addressed above as noted.

Regulatory Reference: R645-301-536.500. Duplicate Coverage.

These regulations have already been addressed.

Regulatory Reference: R645-301-542.730. Reclamation/Revegetation Suitability

The reprocessed reject will be the same material, both chemically and physically, as the same material that is being placed on a day-to-day basis. It will be buried at least 70 feet below the highest elevation of the pile, when same is ready to be reclaimed. It will have no effect on revegetation/reclamation potential.

Regulatory Reference: R645-301-746.100. Hydrology/General Requirements

R645-301-746.110. New or Existing Disposal Areas Within the Permit, Approved by the Division

The School House Canyon facility has existed for approximately 20 years as a Division approved site, meeting all requirements of SMCRA. This regulation has been met.

R645-301-746.120. Minimization of Adverse Effects of Leachate and Surface Water Runoff on Surface and Ground Water Quality and Quantity

The placement of Price River Coal pile reprocessed reject at School House Canyon in the controlled manner which has been a standard operating procedure will have no more effect on surface and ground water quality and quantity than does the material which has been placed and stored in that Canyon for approximately 20 years. This requirement is considered to be adequately met.

CONCLUSION AND RECOMMENDATION

- 1) The reprocessed reject will have the same chemical and physical properties as the material that is placed on the School House Canyon pile on a daily basis; both come from the same coal seam(s) and the same overlying roof strata(s) which have been worked in the Castle Gate permit area for many years.
- 2) Acid and toxic forming potential was not even considered when the material was taken from the Castle Gate permit area to the Star Point permit area. It appears that this consideration was unimportant to AML. It should not be important now.
- 3) The combustible content of the reprocessed waste will be much lower than what it was when in place at Star Point. This is an improvement in conditions enhancing non-spontaneity within any refuse pile.
- 4) All other regulatory requirements relative to the disposal of coal mine waste from outside of a permit area (if you consider the Price River Coal pile material from outside the Willow Creek permit area) are covered by the Division's approved design for the pile.

As the Reclamation Specialist assigned to this site, I feel that all regulatory requirements of the R645 rules, as they relate to coal mine waste disposal, are adequately addressed; no amendment submittal to modify the Willow Creek mining and reclamation plan is necessary.

The purpose of this document was to justify my reasoning behind the recommendation which I am about to make.

In my opinion, Cyprus Willow Creek Mining Corporation should be granted approval from the Utah Division of Oil, Gas, and Mining to reprocess 100,000 tons of the Price River Coal pile material, and place any reject generated from that process on the School House Canyon waste rock facility.