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January 4, 1999

To: File

Thru: Joe Helfrich, Permit Supervisor, Compliance *JH*

From: Peter Hess, Reclamation Specialist III *PH*

RE: Update As-Built Status, Cyprus Plateau Mining Corporation, Willow Creek Mine, ACT/007/038-98G, Folder #2, Carbon County, Utah

**SUMMARY:**

The submittal of MRP information regarding "as built" status for the Willow Creek Mine was received in two stages; the first being 3 volumes relating to hydrology received October 27, 1997 and the second regarding various maps and text changes received September 29, 1998. This analysis will be written in a different manner, as it is felt that the standard type of review would take too much time and paper.

The following bullet statements are corrections or comments that should be made relative to the subject noted:

- 1) Page 4.5-55, Mine Ventilation, Paragraph 3

Degasification wells are necessary to reduce the risk of methane gas ignitions and possible mine fires. The submitted text states "The degasification wells will be installed before longwall mining begins 'in any given longwall panel and will be in the gob area after longwall mining passes the wells.'"

The Division cannot permit degas boreholes based on locations of "in any given longwall panel". This is unspecific, and constitutes a loss of permitting control by the agency. The text should be re-written to "the degasification wells will be implemented through proper UDOGM permitting actions, as determined by the in-mine ventilation requirements inherent with the coal extraction process."

- 2) Page 4.5-55a, Water transfer line from pond 001A to MSHA pond 013A

This line was implemented as a contingency method (ACT/007/038-98F) to de-water pond 001A to prevent a discharge of hydrocarbon contaminated oil to the Willow Creek drainage. The amendment indicated that this line was to be temporary only, and that its life

will end once the re-injection of the mine waters is approved through DEQ/DWQ. I would recommend that the wording be re-phrased to indicate that the system was installed on a temporary basis, and will be removed upon the completion of the re-injection system.

3) Page 4.5-61, Paragraph 2, Coal Processing

The clean coal storage volume of 300,000 tons needs to be consistent with the volume on Page 4.5-57, (600,000 tons). Both need to be consistent with the storage volume permitted through ACT/007/038-97I, Clean Coal Pile Expansion.

4) Page 4.7-27, Paragraph 5, Pond 013A

"Pond 013A will be inspected weekly" needs revision. Cyprus has applied for and received a variance from MSHA to reduce the inspection frequency from every seven days to once a month, as of February 26, 1998. The status of this pond changed when the permittee began transferring water from pond 001A to 013A due to the interception of hydrocarbons in the D seam. The permittee needs to revisit this wording so as to prevent a compliance issue, both with MSHA and DOGM.

5) Page 5.3-1, makes reference to the Barn Canyon shaft site.

This amendment has yet to receive Division approval. Otherwise, it seems to be O.K.

6) Page 4.3-6, under 4.3.2.2, Potential Effects on Aquatic and Riparian Resources (Includes Sensitive Species), paragraph 2 on 4.3-6.

"In order to minimize the potential for accumulated coal fines to be carried to Willow Creek, coal fines accumulations will be cleaned up and disposed of when they reach **"an excessive depth"**. This leaves the permittee wide open for enforcement action, as "excessive depth" is merely a determination left up to the inspector. The permittee is leaving that determination up to the amount of field experience held by the regulator. More specific wording relative to the volume of coal fines needs to be established; this will be what initiates the clean up and disposal of the fines.

7) Page 4.5-44, paragraph at bottom of page, discussing Pond 001A.

"Two" orifices acting as oil skimmers in the vertical riser are discussed, where four are implemented in the field. Map 24, "SEDIMENTATION POND 001" shows three two-inch schedule 40 decant inlet pipes at elevation 6165.9 feet. Although this is a very minor discrepancy, the text, map, and field conditions need to show consistency.

8) Page 4.7-10, Handling/treatment of in-mine intercepted groundwater

Quoting from paragraph four, "If it becomes necessary to discharge any excess mine drainage to the surface, discharge will be routed through the drainage and sediment control network to Sedimentation Pond 001, where it will be retained, treated if necessary, and sampled prior to discharge. Given that potential mine water discharge requirements are expected to be minimal and the specific control and sampling measures inherent in operation of the sediment ponds, any potential impacts to surface water resulting from mine water discharge should be effectively mitigated."

Referring to page 4.5-44, Pond 001A has been designed to accommodate a total retention capacity of 8.50 acre feet, which includes a three year accumulation of sediment (0.89 acft), **mine water discharge flows of 0.17 cubic feet per second**, and the ten year 24 hour storm event. The 0.17 cfs converts to 76 G.P.M., or 110,000 G.P.D.

With the interception of the hydrocarbons, it has become evident that the Mine is producing much more than 76 GPM of groundwater. The pumping off of water from the bottom of pond 001 to pond 013A in order to prevent the discharge of the oils to Willow Creek and thence the Price River was a temporary emergency measure, and cannot be considered to be a permanent measure. Upon reopening of the Willow Creek Mine, the volume of groundwater intercepted will more than likely remain the same. The permittee is currently looking at discharging water to the surface waters of the State, and/or re-injecting same back underground. If neither of these plans are in place upon start up of the Mine, the permittee must look at another method of treatment other than pond 001A for the ground water volume which is in excess of the 0.17 cfs allowed. The text of this submittal will then need to be revised to reflect this, when same occurs.