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State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter  
Governor  
Dee C. Hansen  
Executive Director  
Dianne R. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

DATE: August 7, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Wm. J. Malencik, Reclamation Specialist *WJM*

RE: DO-91B, Cottonwood/Wilberg Waste Rock Site, ACT/015/019 #2

Recommend approval of the permittee proposal of July 15, 1992, subject to the permittee providing follow-up on items 1, 2, 3, and 5. The permittee has addressed the six issues. In addition, the required follow-up actions have been discussed with and proposals by Mr. Payne are as follows:

Issue #1: Positive drainage on the top of the refuse pile, i.e. crown the top of the refuse pile.

Permittee proposal:

(a) **Interim:** Top of the pile and a disturbed area north of cross section 4+17.5 will drain in a southwesterly direction. The top of the pile through grading will drain in a southwesterly direction; the disturbed area because of the lay of the land will drain in a similar direction. PAP narrative submitted covers other required details.

**\*\* REQUIRED FOLLOW-UP ACTION BY THE PERMITTEE:**

Revise plate 4-14, Drawing CM-10877-WB showing additional drainage arrows north of cross section 4+17.5.

(b) **Long Range:** When the pile reaches a given elevation the top of the pile will drain in a northwesterly direction per existing approved PAP.

Issue #2: Controlled drainage off the refuse pile.

Permittee proposal:

(a) **Interim:** Establish a new outslope diversion on the southwest segment of the refuse pile. It will divert runoff into an established diversion.

**\*\* REQUIRED FOLLOW-UP ACTION BY THE PERMITTEE:**

Design and construct interim outslope diversion by August 28, 1992. Also show short diversion on plate 4-14, Drawing CM-10877-WB together with interim ditch movement to the north as the pile gets higher.

**(b) Long Range:** No change over initial approved submission .

**Issue #3: Establish upper and lower ditch.**

Permittee proposal:

**(a) Regulations:** Backup and legal interpretations submitted by the permittee provide that runoff from undisturbed and disturbed areas (refuse pile) may comingle.

**(b) Validation:** Undersigned discussed matter and aforementioned regulatory citations with Steve Rathburn. He agreed that only one diversion in this instance would be required since the diversion is designed for 6 hour 100 year storm event and all runoff is treated by a properly designed sediment pond.

**\*\* REQUIRED FOLLOW-UP ACTION BY THE PERMITTEE:**

-Construct a diversion on the east side. This diversion plus the existing diversion will drain east and west segments of the refuse pile and contiguous disturbed and undisturbed areas. Drainage on the south side outslope is controlled sheet flow over reclaimed outslope and into the sediment pond. The north sheet flow drains in a southwesterly direction and ultimately to ditch discussed in issue #2.

-Construct east diversion by August 28, 1992 per existing approved PAP.

**Issue #4: Reconsider other alternatives for sediment material storage.**

Permittee proposal:

The previous proposal considered sediment storage on a case by case basis. This would be done as part of the pond cleanout plan.

The current proposal is to store such material from the Cottonwood/Wilberg and Des Bee Dove on the refuse pile.

Since the operator submits a cleanout plan for each pond cleaning, waste rock site conditions could be evaluated as part of the cleanout plan. This proposal should be approved as submitted.

Issue #5: Evaluate the stability of the refuse pile where it interfaces with the sediment pond.

Permittee proposal:

Commits to conducting a saturated stability analysis on the refuse pile based on site factors including the ultimate designed height of the pile.

**\*\* REQUIRED FOLLOW-UP ACTION BY THE PERMITTEE:**

Conduct stability analysis and submit report to the Division by September 28, 1992.

Issue #6: Evaluate the size and functions of the terraces in relation to drainage.

Permittee proposal:

The terraces are not part of the refuse outslope drainage system. As the pile gets higher should erosion rills appear on the south facing outslope, this matter must be reconsidered by the operator.

**SUMMARY**

Issues 1-6 were addressed by the permittee. Some minor adjustments were discussed with the permittee and highlighted herein as required follow-up action. These proposed adjustments on issues 1, 2, 3, and 5 were outlined to the undersigned by the permittee and should be approved if submitted as discussed herein.

Enclosure: SLC case file