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November 30, 1993

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Senior Reclamation Hydrologist

RE: N93-39-5-3#2 Abatement-Refuse Site Sediment Pond November 26, 1993, Utah Fuel Company, Skyline Mine, ACT/007/005-93I, Folder #2, Carbon County, Utah

SUMMARY

The operator was cited with violation N93-39-5-3#2 for failure to design the Mine Site Sedimentation Pond Emergency Spillway and was modified on November 24, 1993 to include designs for the Waste Rock Sedimentation Pond. On November 22, 1993 a technical memo recommendation suggested the operators November 15, 1993 submittal was adequate to abate the portion of N93-39-5-3 #2 regarding the Mine Site Emergency Spillway. The abatement measures for the portion relative to the Waste Rock Sedimentation Pond were included in the submittal received on November 26, 1993 and is the focus of this memo. The operator did not change any design values other than the precipitation. Therefore, the presented design elements were assumed to be correct.

R645-301-740

Proposal:

The operator has recalculated the pond containment for the 100 year - 6 hour event. With the 2.25 inches of precipitation, a the calculated runoff volume was 2,304 cubic ft for the undisturbed area runoff while, the disturbed area runoff volume was calculated to be 6,137 cubic feet.

Analysis:

The operator has provided the runoff designs from the disturbed area incorrectly referring to a 100 year-24 hour event on pg 2/8. According to the reference on page 5/7 of Volume 2, Section 5 the 2.25 inches of precipitation is actually the 100 year - 6 hour event. Again the 10 year - 24 hour event is larger than the 100 year - 6 hour event and should be used in the analysis to demonstrate that the 10 year -24 hour event is treated in the pond. Because the value of the 100 year - 6 hour event is shown to be less than the 10 year - 24 hour event, with 2.45 inches of precipitation, the runoff volume from 2,850 cubic feet



should be presented as well as the 100 year - 6 hour event for the disturbed and undisturbed areas.

In order to meet the requirements for a total containment pond without a spillway the operator should provide the following:

1. A short discussion indicating how the requirements for a total containment pond should be included. A certified statement that the pond design meets or exceeds the design precipitation event required for the pond is required for ponds without a spillway.
2. The operator should also provide certification of the design. This is most clearly demonstrated by submitting a cover page for the section submitted and including the date of revision which is being certified the certification stamp and signature. In addition the certified statement could be included on this page.
3. A demonstration that the pond must have a dewatering plan which provides adequate decant capabilities. According to the proposed rule preamble this means 90% of the water stored in the design precipitation event be removed within the 10 day period following the event.

RECOMMENDATION

The operator will be able to demonstrate the requirements of R645-301-742.220 are met. However, in order for the operator to meet the requirements of the R645-301-742.225 and R645-301-742-221.33 and 742.221.34 , items 1 through 3 requested in the analysis above need to be clearly presented. In addition the value of the 100 year - 6 hour event is shown to be less than the 10 year - 24 hour event, with 2.45 inches of precipitation, the runoff volume from the 10 year -24 hour event must be presented as well as the 100 year - 6 hour event for the disturbed and undisturbed areas.