



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

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March 23, 2000

TO: Internal File

THRU: Mike Suflita, Reclamation Hydrologist *MGS*

FROM: Peter Hess, Reclamation Specialist III, Project Team Lead *Sm for PHH*

RE: Stockpiled Snow Storage in Upper Cell "A", West Ridge Resources, Inc., West Ridge Mine, ACT/007/041-AM00C

**SUMMARY:**

Amendment AM00C, as received in the Price field office on March 3, 2000, appears to be deficient in that no definition is provided as to where and how snow storage is to be implemented in the upper cell. The entire submittal consists of C-1 and C-2 forms, Table 16A, which consists of P.E. certified "As Constructed Volumes" for cells "A" and "B", and Map 7-4, Sediment Pond, Plan and Profile.

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

**Analysis:**

**Sedimentation Ponds**

The permittee has submitted an application to modify the current plan relative to the operation of the dual cell sediment pond. The applicant's proposal is to use excessive storage capacity of upper cell "A" for snow storage. Table 16A (page 46a) consists of a P. E. certified document containing "As-Constructed Volumes" for cells "A" and "B". A note at the bottom of this report indicates that the storage volumes constructed for the **Pond exceeds approved design by 0.479 ac. ft. at the Principal Spillway.** It is not clear if this statement applies to both cells "A" and "B", or one cell or the other. **The proposal is to stockpile snow in the upper storage cell only.**

The Division must review and approve the "as-builts" for the dual cell sediment pond prior to entertaining an amendment to modify the operational use of same.

The applicant claims, once again, that the sediment pond is 0.48 acre feet larger in storage capacity than what is necessary to treat the 10 year 24 hour event. This is done in the cover letter, but not in the amendment. There is no verbiage included with the submittal to indicate where the applicant intends to store the snow. This needs to be done in detail as should the permittee inadvertently put snow in pond "A" without a detailed plan in place, it would be possible for that snow to end up below elevations in the pond which would deplete the volumes designated for sediment storage. This would constitute a compliance action.

The excess storage volume of 0.479 acre feet which has been indicated equates to approximately 775 cubic yards of snow. The permittee needs to determine if and where a volume exists within the confines of cell "A" such that the snow can be safely stored and will not avalanche into the sediment storage volume in the cell. That is, a storage volume that can hold the 775 cubic yards of snow in such a manner that the snow will not collapse into the volumetric area designated in the pond for sediment storage must be determined.

The permittee also needs to maintain a record of some sort as to how much snow will be placed in this area and when. **The 775 cubic yard volume cannot be exceeded,** according to cell "A" design/as built. Should the permittee desire to place additional snow within the storage area, a volumetric survey of the unmelted pile needs to be performed to determine how much additional snow can be added.

**Findings:**

Amendment ACT/007/041-AM00C is inadequate in that it does not contain a sufficient amount of information or analysis to determine if it would be proper to store snow within the confines of cell "A".

The "as constructed" volumes for the dual cell sediment pond must be confirmed and approved through Division analysis. ACT/007/041-AM00C cannot be reviewed or approved until ACT/007/041-AM00B is approved.

**RECOMMENDATIONS:**

ACT/007/041-AM00C does not contain sufficient information for review. The permittee must devise a plan to show how the snow will be stored within upper cell "A" as well as a monitoring plan to show that stored volumes of snow will not exceed the 0.479 acre feet of excess storage capacity which the permittee claims to exist.