



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

Docket File  
40-3453

OCT 3 1977

MEMORANDUM FOR: Leland C. Rouse, Chief  
Fuel Processing and Fabrication Branch  
Division of Fuel Cycle and Material Safety, NMSS

FROM: L. G. Hulman, Chief  
Hydrology-Meteorology Branch  
Division of Site Safety and Environmental Analysis, NRR

SUBJECT: ATLAS URANIUM MILL, REVIEW OF PROPOSED EROSION  
PROTECTION FOR DOWNSTREAM EMBANKMENT SLOPE

As requested in your memorandum dated September 2, 1977, we have reviewed the necessity for riprap protection of the downstream toe of the tailing pond embankment at the subject mill. Based on independent estimates of the Probable Maximum Flood and resulting overbank velocities, we conclude that no riprap is required to protect the dam from flooding on the Colorado River. It should be noted that the applicant's PMF estimate was not conservative, in that a 100-year flood on the Colorado River was assumed coincident with a PMF on a small upstream drainage area. Our independent PMF estimate, which was used to determine velocities at the dam toe, was more than three times larger than the applicant's estimate. This analysis was conducted by T. Johnson.

L. G. Hulman, Chief  
Hydrology-Meteorology Branch  
Division of Site Safety and  
Environmental Analysis  
Office of Nuclear Reactor Regulation

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