



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

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WMUR:TLJ
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MEMORANDUM FOR: Docket File Nos.: 40-3453
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40-8452

FROM: T. L. Johnson, Project Manager
Operating Facility Section II, WMUR, NMSS

Harry J. Pettengill, Section Leader
Operating Facility Section II, WMUR, NMSS

SUBJECT: REPORTS OF SITE VISITS AND MEETING SUMMARIES

A. Meeting with Federal-American Partners

On April 12, 1982, the NRC staff met with Federal-American Partners (FAP) in Denver, Colorado to discuss various aspects of a proposed reclamation plan for existing Tailings Pond No. 1. FAP had requested the meeting to present various options for the design and stabilization of surface water hydrological features at this site. Attendees at the meeting were:

T. L. Johnson, NRC
Anand Prakash, Dames & Moore Co.
Brian Cundelan, Dames & Moore Co.
Niles Andrus, Federal-American Partners

We discussed various aspects of a proposed design for the diversion of Campsite Draw and Willow Springs Draw around the existing tailings pond. FAP presented draft plans and hydraulic computations for the diversion. The staff briefly reviewed the plan and computations and indicated

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several features which would have to be modified to meet long-term stability criteria. FAP indicated that they would make the necessary modifications and submit a revised plan. (The revised plan was submitted on April 21, 1982.)

B. Meeting with Rocky Mountain Energy Co.

On April 12, 1982, the NRC staff met with Rocky Mountain Energy Co. (RMEC) in Denver, Colorado regarding a proposed dam raise and reclamation plan for the Bear Creek site. Attendees at the meeting were:

H. Pettengill, NRC
T. Johnson, NRC
R. Williams, NRC Consultant
R. Yellich, RMEC
R. Medlock, RMEC

T. Johnson (NRC) discussed deficiencies that had been found in RMEC's submittals on the hydrologic design of the diversion channels. RMEC agreed to correct the deficiencies, make the necessary changes to the drawings, and to submit a revised reclamation design. The revised plans were submitted on May 6, 1982.

H. Pettengill and R. Williams discussed the projected seepage evaluation and identified potential seepage pathways through the N sand along the mill side of the tailings dam. RMEC proposed the location of additional monitoring wells to delineate this situation. RMEC submitted following information to resolve this potential seepage pathway on May 6, 1982.

C. Meeting with Rio Algom Corporation

On April 13, 1982, the NRC staff met with Rio Algom Corporation (RAC) at the tailings dam site. Present at the meeting were Bob Pattison and Merv Lawton (RAC); Ted Johnson and Harry Pettengill (NRC); and Roy Williams (consultant to NRC). The purpose of the meeting was to discuss

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RAC's available options based on our observations of the current state of the existing diversion channels. At this meeting the licensee proposed as an alternative to modifying the diversion structure or placing riprap to: 1) modify the Bisco Lake embankment and/or, 2) restrict the operating level in the lower impoundment as a means of assuring containment of the PMF, allowing no credit for the diversion channel. RAC indicated that they were not exactly sure what they would like to do. RAC requested that NRC give principal consideration to the design option which would give no credit whatsoever for the diversion ditch and would assume complete runoff into the lower impoundment from the entire drainage area above it. RAC believed that adequate freeboard would be available in the lower impoundment to allow operations to continue for several more years, assuming that the criteria of the new staff position paper (rather than Regulatory Guide 3.11) were used to determine the freeboard requirements. We indicated that this was an acceptable option and that the NRC would review this request.

Mr. Pettengill and Mr. Williams discussed the existing seepage problems, and proposed mitigative actions. (See attached trip report by R. Williams.) These issues were eventually resolved by the issuance of amendments 14 and 15 on September 3, 1982.

D. Meeting with Atlas Minerals Co.

On April 14, 1982, a meeting was held with Atlas Minerals to discuss specific options available with regard to seepage, monitoring, and interim and final stabilization of Moab Wash.

After arriving at the site Mr. T. Johnson walked the entire length of the Moab Wash Channel (on Atlas property). I made several observations pertinent to the hydraulic design of the channel:

- 1) The riprap placed along the dam embankment on the upstream end of the channel (Upstream of Section B as shown on Exhibit H of the licensee's submittal dated October 3, 1978) appears to be fairly

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well-graded and suitable to provide adequate protection for the embankment during a major flood event.

- 2) That portion of the channel in the vicinity of the barium chloride (BaCl) treatment ponds is physically located about 150 feet from the toe of the dam embankment. The capacity of this portion of the channel could be beneficially lessened by decreasing the height of the berm (the berm is actually soil piled up randomly) between the channel and the mill area. Also, the height of the berm could be lowered downstream from the existing ore pile. By lowering the elevation of the berm to an elevation less than that of the right bank of the channel (looking downstream), the amount of water to be carried (and thus the channel velocity) would be decreased, without significantly affecting the PMF water surface elevation.
- 3) The BaCl ponds should be filled to provide additional protection against flood erosion toward the tailings embankment. At the present time, the ponds appear to be about 8-10 feet deep and are almost empty.
- 4) At the upstream end of the BaCl ponds on the right bank of the channel, poor hydraulic conditions exist for the smooth passage of flow along the embankment toe. Undesirable flow currents could be formed in this area, increasing the likelihood of embankment erosion. This area should be regraded starting at the access road and progressing downstream to the BaCl ponds.

Discussions were held with Mr. Richard Blubaugh regarding the above observations and any modifications which could be made to Moab Wash to minimize the erosion protected. Mr. Blubaugh indicated that he would take the dose comments under construction and get back to us.

Dr.'s Williams and Pettengill reviewed with Atlas staff and their consultants the findings of a mill site seepage study and proposed monitoring program recently completed by Dames & Moore for Atlas. These

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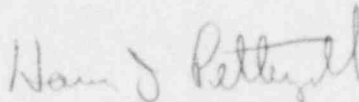
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issues are highlighted in the attached letter from R. Williams providing comments on the Atlas groundwater study.

Final resolution of both above issues were achieved by issuance of amendments 8 and 9 on August 11, 1982 and September 3, 1982, respectively.



T. L. Johnson, Project Manager
Operating Facility Section II
Uranium Recovery Licensing Branch
Division of Waste Management



Harry J. Pettengill, Section Leader
Operating Facility Section II
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Division of Waste Management

Attachment:

Letters fm R. Williams Providing Comments
on the Atlas Groundwater Study 40-3453

MC: 20358 DCS# 8205190052

40-8084 MC: 20356 DCS# 8205280115