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THE STATE OF WYOMING

JIM GERINGER
GOVERNOR



Department of Environmental Quality

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March 26, 1997

U.S. Nuclear Regulatory Commission
Mail Stop T-7J9
Washington, D.C. 20555-0001

Attention: Mr. Ken Hooks, Project Manager

Re: Review of Additional Ground Water Information
American Nuclear Corporation (ANC) Tailings Ponds - Fremont County, WY
LQD Permit 352
NRC License SUA-667

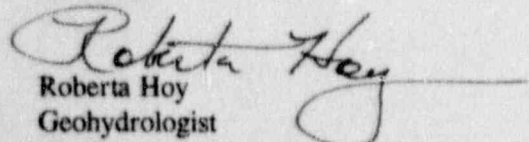
Dear Mr. Hooks:

The Land Quality Division (LQD) of the Wyoming Department of Environmental Quality has completed a review of additional ground water information from the vicinity of the ANC Tailings Ponds. The enclosed memorandum summarizes the results of that review and includes recommendations for additional work to help LQD develop the most appropriate approach for closure and monitoring of the ponds.

One question which has not been satisfactorily resolved using the historic information is the extent of seepage impacts downgradient of Pond No. 1. Therefore, in conjunction with other work on-site, LQD plans to install two additional wells downgradient of Pond No. 1. Other wells, as recommended in the enclosed memorandum, may also be installed. Weather permitting, this work should begin within the next couple of weeks.

If you have any questions or need additional information, please call

Sincerely,


Roberta Hoy
Geohydrologist

Enclosure

cc: Richard A. Chancellor, LQD Administrator
Mark Moxley, District II Supervisor

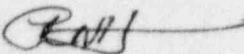
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MEMORANDUM

TO: Mark Moxley, District II Supervisor

FROM: Roberta Hoy, Geohydrologist 

DATE: March 26, 1997

RE: Review of Additional Ground Water Information - ANC Tailings Ponds
American Nuclear Corporation (ANC) - Permit 352

The attached memorandum is an 'extension' of the January 26, 1996 memorandum which summarized available information on ground water conditions in the vicinity of ANC's Tailings Pond No. 1. This 'extension' includes evaluation of additional data from the vicinity of both of ANC's tailings ponds, and the primary results and recommendations are:

- The 1996 sampling of the 'MW' wells below Tailings Pond No. 1 confirms that seepage impacts from Pond No. 1 now extend at least 2500 feet downgradient of the pond along Gas and FAP Draws. Therefore, sampling of the 'MW' wells should be conducted at least annually and ground water remediation should continue downgradient of Pond No. 1.
- The more conservative interpretation of the historic data for the Fox wells indicates that contamination extended at least 3000 feet downgradient in the early 1980s and that the contaminant migration rate was much higher when Tailings Pond No. 1 was in active use. The alternate interpretation was that the high contaminant concentrations in the Fox wells were the result of natural conditions (e.g., ground water seepage at the surface and associated evaporation). However, several aspects of the data, such as the declining water levels over time, would not be expected under natural conditions. Because the Fox wells were sealed several years ago, neither interpretation can be confirmed, so installation of two wells downgradient of the Fox wells is necessary.
- Long-term data for Willow Springs and Well TP2-2 indicates that the springs and the well were impacted by seepage from Tailings Pond No. 2, and recent data for Well TP2-2 indicates those impacts are continuing. Therefore, neither of these are 'background' locations, as suggested in ANC's 1990 application for Alternate Concentration Limits, and monitoring of these locations must continue. In addition, remediation downgradient of Pond No. 2 may become necessary as the increased radium concentrations in Well TP2-2 will eventually impact Willow Springs, which is used for livestock and wildlife watering.

Attachment