

# AMERICAN NUCLEAR CORPORATION

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February 23, 1998

Joseph J. Holonich, Chief  
Uranium Recovery Branch  
Division of Waste Management  
Office of Nuclear Material Safety and Safeguards  
Mail Stop T-7J9  
11545 Rockville Pike  
Rockville, Maryland 20852

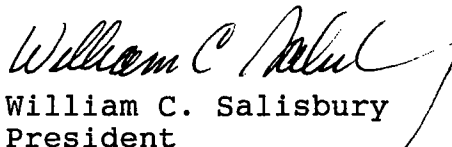
Re: Docket No. 40-4492  
License No. SUA-667

Dear Mr. Holonich:

In compliance with the License conditions No. 29C, American Nuclear submits the 1997 Ground Water Corrective Action Program for Tailings Pond No. 1.

If you have any questions, please advise.

Sincerely,

  
William C. Salisbury  
President

Enclosures: 5

xc: Director of Radiation Safety and Safeguards  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

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AMERICAN NUCLEAR CORPORATION

GROUND WATER  
CORRECTIVE ACTION PROGRAM  
1997 ANNUAL REPORT

February 23, 1998

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**AMERICAN NUCLEAR CORPORATION  
GROUND WATER  
CORRECTIVE ACTION PROGRAM - 1997 ANNUAL REPORT  
February 23, 1998**

American Nuclear Corporation (ANC) has prepared the following annual report for the groundwater corrective action program pertaining to Tailings Pond No. 1 (TP-1) as required by License Condition No. 29. C. of SUA No. 667.

The groundwater corrective action program consists of pumping well R-4 from May 1 through October 31 of each year with the collected water discharged to a nonponding evaporation system located on the surface of TP-1. The evaporation system consists of four (4) Beta Fog nozzles, sized for the flow rate of well R-4, that produce a fine mist. The quantity of nozzles used in the system is adjusted to compensate for well R-4 flow rate fluctuations in order to maintain adequate misting of the discharged water. Four nozzles were used during the 1997 season, except for the first three weeks of operations, when two nozzles were used. The system is inspected weekly for proper operation.

Due to freezing temperatures at the site, the system was not put in operation until May 8, 1997. During the first three weeks, numerous pump problems were encountered which resulted in the recovery system shutting down. After the pump and controls were replaced, the recovery system remained in continuous operation through October 22, when the system froze due to freezing temperatures at the site. Due to continued freezing temperatures, the system was not restarted during the 1997 season. The system recovered an average of 1.25 gallons of water per minute during the pumping season. A total of 276,000 gallons of water was recovered and evaporated during the 1997 season. The total estimated quantity of water recovered from the system to date is 124,898,000 gallons.

The historical and recent data generated through monitoring continues to demonstrate that no present hydraulic connection exists between the affected area of the upper Wind River formation and local surface water. No groundwater wells used for domestic or livestock purposes exists now or are likely to be installed in the upper Wind River formation in the future due to the poor recovery rates (recharges), unacceptable water quality, area demographics, and the depth, water quality, and water resource of the lower Wind River formation (i.e. availability of an alternate water resource). Pumping well R-4 as an approved corrective action, elimination of the source of contaminants, and the revisions to the approved reclamation plan have all contributed to the ALARA (as low as reasonably is achievable) demonstration.