



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
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DENVER, COLORADO 80225

JAN 09 1991

URFO:DCW
Docket No. 40-4492
SUA-667, Amendment No. 42
04004492740E

MEMORANDUM FOR: Docket File No. 40-4492
FROM: Dana C. Ward, Project Manager
SUBJECT: AMENDMENT NO. 42 TO SOURCE MATERIAL LICENSE SUA-667 FOR
DISPOSAL OF NORTH PLATTE ISL WASTE

Introduction

By letter dated October 2, 1990, American Nuclear Corporation (ANC) requested amendment of Source Material License SUA-667 for the Gas Hills Mill to authorize the receipt and disposal of byproduct material waste from North Platte in-situ leach (ISL) facility. The North Platte facility is located near Glenrock, Wyoming. Operations at the ISL facility are authorized by Source Material License SUA-1400. ANC plans to dispose of this material until December 31, 1992, when final reclamation at Pond No. 1 is scheduled to be complete.

Discussion

The material to be disposed will consist of pond residue, pond liner, contaminated soils, process filters, fittings and parts, building materials, and process equipment. It is estimated that an amount not to exceed 100 cubic yards of North Platte waste will be disposed. Materials will probably be shipped in 55-gallon drums in accordance with all State and Federal regulations. A manifest describing the waste will accompany each shipment. Other hazardous waste will not be accepted by ANC for disposal.

ANC states that ISL byproduct material will be disposed in Tailings Pond No. 1 at the Gas Hills Mill. Evaporation pond residues will be spread to enhance evaporation prior to cover. Residues received by ANC are not expected to exceed 50 percent contained moisture. Other material will be placed in shallow trenches or on the surface of the tailings pond. Equipment will be sectioned or crushed prior to placement and all voids filled by soil prior to compaction. A permanent record will be kept showing the burial location of all materials.

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JAN 09 1991

The material to be disposed of will be placed in layers not to exceed 12 inches in thickness. A minimum of 1 foot of interim cover will be placed over the wastes after each shipment is placed. All pond residues will be covered after desiccation. ANC's approved reclamation plan will not be affected by this activity. The North Platte material (100 cubic yards) will be used in place of off-site material needed to meet specified contours. ANC supplied radon flux calculations to reaffirm the radon attenuation of the cover to be placed over the waste disposal area.

ANC's radiation protection plan will include an air particulate monitor located at the disposal site. The monitor will be activated during disposal activities.

Staff Review

The staff review of the licensee's proposal indicates that the byproduct material is similar to the tailings. The estimated weighted average concentration for Radium-226 is about 150 pCi/gram. Compared to the great volume of tailing, the additional radioactivity added to the tailings pile as a result of the North Platte disposal would be insignificant.

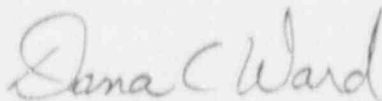
The procedure outlined in ANC's submittal for disposal of the wastes from North Platte is acceptable. The staff will require, as with earlier requests for ISL disposal, that a standard operating procedure be written and followed. This procedure must be subject to annual review and revision if necessary.

The staff concludes that disposal of the byproduct material from the North Platte facility at ANC's Gas Hills Mill is in accordance with NRC regulations and, specifically, Criterion 2 of Appendix A to 10 CFR 40. Criterion 2 encourages the disposal of waste from ISL facilities at mill tailings sites to avoid proliferation of numerous small disposal sites.

The staff also concludes that the licensee's proposal for disposal of the waste will not have a significant impact on Tailings Pond No. 1. The staff, therefore, recommends that Source Material License SUA-667 be amended to authorize the disposal of the byproduct waste from the North Platte ISL facility by modifying License Condition No. 30 to read as follows:

JAN 09 1991

30. The licensee is authorized to dispose of in-situ leach byproduct waste material from the Ferret Exploration Company of Nebraska, Power Resources Incorporated, and North Platte facilities in accordance with the submittals of June 21 and October 2 and 11, 1990. Further, the licensee shall develop a written standard operating procedure prior to disposing any ISL waste at its facility. This procedure shall be reviewed annually and revised if necessary.



Dana C. Ward
Project Manager

Case Closed: 04004492740E

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Docket File No. 40-4492
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