

FDK



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

NOV 05 1990

URFO:DCW
Docket No. 40-4492
SUA-667, Amendment No. 41
04004492770E

MEMORANDUM FOR: Docket File No. 40-4492
FROM: Dana C. Ward, Project Manager
SUBJECT: AMENDMENT NO. 41 SOURCE MATERIAL LICENSE SUA-667 FOR THE GAS HILLS MILL ISL DISPOSAL

Introduction

By letter dated October 11, 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 Power Resources Incorporation's (PRI) in-situ leach (ISL) project. The ISL project is located north of Douglas, Wyoming. Operations at the ISL facility are authorized by Source Material License SUA-1511. ANC plans to dispose of this material until December 31, 1992, when final reclamation at Pond No. 1 is scheduled to be complete. This application is the second ISL licensee to request disposal at ANC's Pond No. 1. Ferret Exploration Company of Nebraska was permitted to dispose at Pond No. 1 by addition of License Condition No. 30 to SUA-667.

Discussion

The material to be disposed will consist of radioactive sludge, soils process filters, miscellaneous parts and fittings. It is estimated that an amount not to exceed 500 cubic yards of PRI's waste will be disposed. The material to be disposed will be trucked by exclusive use vehicles in specially sealed dumpsters. The shipping containers will meet all required DOT regulations for low specific activity (LSA) materials. A manifest describing the waste material and an emergency response plan will accompany each shipment.

ANC states that the ISL byproduct material will be disposed in Tailings Pond No. 1 at the Gas Hills Mill. Sludge residues will be spread prior to covering.

PM:URFO
DCWard/db
11/1/90

PM:URFO
Pwmichaud
11/2/90

DD:URFO
EFHawkins
11/2/90

D:URFO:RIV
REHall
11/2/90

9011140310 901105
PDR ADOCK 04004492
C PDC

00376

DF02
110

NOV 06 1970

Other materials will be placed in shallow trenches or on the surface of the tailings pond. Equipment will be sectioned or crushed prior to placement, with all voids filled by soil prior to compaction. A permanent record will be kept showing the location of all materials.

The material to be disposed 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. ANC's approved reclamation plan will not be affected by this activity. The PRI material 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 site of disposal activities. The monitor will be operated during disposal of PRI's material.

Staff Review

The staff review of the licensee's proposal indicates that the byproduct material is similar to the tailings. A radiological comparison of PRI's material with ANC's tailings shows that the PRI material per unit volume has a slightly elevated natural uranium content over that of the ANC tailings. Compared to the great volume of tailings, the additional radioactivity added to the tailings pile as a result of the disposal would be insignificant.

The general procedure outlined in ANC's submittal for the disposal of the wastes from PRI is acceptable. However, the staff will require that a standard operating procedure be available prior to accepting any waste from PRI.

Conclusion

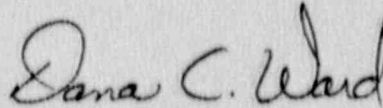
The staff concludes that the disposal of the byproduct material from the PRI facility at the Gas Hills Mill is in accordance with NRC regulations and specifically, Criterion 2 of Appendix A to 10 CFR 40. Criterion 2 encourages the disposal of waste from ISL facilities at mill tailings sites to avoid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

The staff also concludes that the licensee's proposal for the 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 PRI's ISL facility by modifying License Condition No. 30 to read as follows:

30. The licensee is authorized to dispose of in-situ leach byproduct waste material from the Ferret Exploration Company of Nebraska and

NOV 05 1990

Power Resources Incorporation facilities in accordance with the submittals of June 21, and October 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: 04004492880E

bcc:

Docket File No. 40-4492

LFMB

PDR/DCS

URFO r/f

ABBeach, RIV

LLO Branch, LLWM

OB:IMNS:NMSS

DWard

PMichaud

JHaes, RCPD, WY

WDEQ (2)