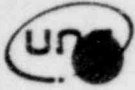


UNC TETON EXPLORATION DRILLING, INC.



Subsidiary of United Nuclear Corporation
A UNC RESOURCES Company

P.O. Drawer A-1
Casper, Wyoming 82602

Telephone 307 265-4102

June 6, 1980

CERTIFIED MAIL NO. 427033
RETURN RECEIPT REQUESTED

Mr. John Linehan
Uranium Recovery Licensing Branch
Division of Waste Management
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear John:

Re: Docket No. 40-8728
SUA 1373, Stipulation 32

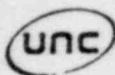
Pursuant to my telephone conversation with Mr. Ron Kaufman this morning, please accept this missive as our formal request to use the freeboard analysis for the North and South Leuenberger evaporation ponds as presented in the February 1, 1980 report "Embankment Information for the North & South Leuenberger Reservoirs" submitted to your office. We are recommending this freeboard primarily because it conforms with the requirements of the State of Wyoming and follows the established engineering principals set by the State of Wyoming and the Army Corps of Engineers.

We fully recognize and appreciate your concern with the concentrations of Ra-226 in the ponds and the ultimate environmental impact on lands downstream from the ponds should the berm fail during a major precipitation event. To date, we have accumulated Ra-226 data from the South Leuenberger reservoir. The data are as follows:

<u>Date</u>	<u>Ra-226 (pci/l)</u>
3/21/80	7.9
4/3/80	6.6

These samples were collected from the water in the pond. Based upon these results, it appears that in the unlikely event that runoff accumulation caused overtopping or complete failure of the berm during the 6-year life of the ponds, the radium concentrations would be sufficiently diluted to be within drinking water standards (5 pci/l).

8007220 070



Mr. John Linehan

- 2 -

June 6, 1980

The freeboard capacity for the South Leuenberger Reservoir is 1,050,000 gal (3.22 acre-ft) when using the proposed 2.4 ft freeboard. The total pond capacity is 3,750,000 gal (11.51 acre-ft). The total pond capacity below the natural ground elevation (5,020 ft) is 450,000 gal (1.38 acre-ft). Should a precipitation event occur where 3.22 acre-ft of natural runoff and rain would accumulate in the pond, 28% of the total water volume would be derived from natural runoff $\{(3.22 \text{ acre-ft}/11.51 \text{ acre-ft})(100\%)\}$. As a result, the radium concentration would be reduced to 72% of the initial concentration or 4.75 pci/l when considering our most recent radium analysis. During the groundwater restoration phase of our program we expect that the present radium concentration in the pond will be reduced further.

In the unlikely event that the berm completely fails during a precipitation event where the pond is filled to total capacity, a maximum of 10.13 acre-ft could possibly be released (11.51-1.38 acre-ft). This release would not affect any drinking water supply since there are no surface water rights of record for this use downstream of the Leuenberger Reservoirs. There are no surface water rights for any use within at least 3 miles downstream from the ponds according to the Wyoming State Engineer. It should be noted that the greater the rainfall intensity, the greater the dilution of the water released from the pond. Notwithstanding, Teton has entered into a surface lease agreement with the Smith Sheep Company (surface owner) for all lands within the $W\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $NW\frac{1}{4}$, $NW\frac{1}{4}SW\frac{1}{4}$, Section 14, T34N R74W (R&D site is contained within this area) which states that Teton will pay for damages resulting from mine wastes. Any such damage, however, will not result in contamination by radionuclides in that these concentrations will be sufficiently low at the time of failure. Enclosed is a map showing the relative location of the ponds and the property boundary covered by the agreement.

I hope I have addressed your primary concerns related to our proposal to utilize the freeboards defined in our embankment report. We appreciate the position you must take when reviewing such proposals to insure that the possibility of radiological contamination is reduced to the most reasonably



Mr. John Linehan

- 3 -

June 6, 1980

achievable level. We hope we have met this objective. As we have indicated previously, we are ready to begin the groundwater restoration phase of our R&D program. A timely review by you or your staff would be appreciated so that we may proceed to demonstrate groundwater restoration as required by our State and Federal licenses.

Thank you for your consideration, cooperation and kind assistance in this matter.

Sincerely,

UNC TETON EXPLORATION DRILLING, INC.

Dan Herlihy

Dan Herlihy

DH/pc

Enclosures - Map maintained by Project mgr.

cc: P. R. Hildenbrand
S. Reiger
R. R. Appel
U. S. NRC Documents Office

PS Form 3811, Apr. 1977

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

① SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one).
 Show to whom and date delivered¢
 Show to whom, date, and address of delivery¢
 RESTRICTED DELIVERY
 Show to whom and date delivered¢
 RESTRICTED DELIVERY.
 Show to whom, date, and address of delivery. \$____
 (CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
 John Linehan, Uranium Recovery
 Licensing, Div. of Waste Mgmt.
 U.S. Nuclear Reg. Comm.
 Washington, D.C. 20555

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	427033	

(Always obtain signature of addressee or agent)

I have received the article described above.
 SIGNATURE Addressee Authorized agent

4. DATE OF DELIVERY *6-10-80* POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

☆ GPO : 1977-O-234-337