

URANIUM REDUCTION COMPANY

P. O. BOX 488  
MOAB, UTAH

July 27, 1960

Mr. Richard Kant  
Division of Inspection  
Idaho Falls Operations Office  
United States Atomic Energy Commission  
Idaho Falls, Idaho

Dear Dick:

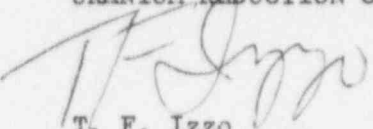
Enclosed are the data you requested concerning radiation levels in areas outside of the mill buildings and in the hearth dryer stack. Also included are the results of the barite test made on the tailings pond effluent.

Table I shows the air samples results from areas within the Moab mill compound, but outside of mill buildings. Table II shows the results of the two surveys made in areas outside of the mill compound including the city of Moab. Table III shows the five hearth dryer stack samples taken since January 1959. Table IV contains the complete Ra226 analyses made during the testing of barite as a radium decontaminant. The barite feed was started at 0 time and about 8 hours was required before the second pond was purged free of regular tailings pond effluent and the treated solution began to evidence itself.

If there is any interpretation of these data or additional data that you need, please let me know.

Yours very truly,

URANIUM REDUCTION COMPANY

  
T. F. Izzo  
Chief Metallurgist

TFI:sh

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PDR ADOCK 04003453  
C PDR

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TABLE I

AIR SAMPLES IN AREAS OUTSIDE MILL BUILDINGS AT MOAB MILL  
URANIUM REDUCTION COMPANY

<u>Location</u>	$240 \times 10^{-11} / \text{mL}$ $240 \times 10^{-11} / \text{mL}$		<u>1Q 1960</u>	<u>2Q 1960</u>
	<u>3Q 1959</u>	<u>4Q 1959</u>		
Leach Tanks	.0619	.00875	.0110	.0204
	.0607	.0756	.0964	.1980
	.0503	.0441	.0328	.00696
Autoclave Deck			.0964	.00982
			.0381	NIL
			.0131	.50
#1 Thickener			.235	.0607
				.0555
				.808
#2 Thickener			.165	.0527
				.0123
				.097
#3 Thickener			.0744	.0898
				NIL
				.0404
Grizzly	1.1	.424	.127	2.5
	1.14	.215	.785	.125
	.0946	.373	.743	.809
Salvage Yard			NIL	.0149
			NIL	.00112
			NIL	.00869
Tailings Pond Area	.0206	.00893	.00654	.0105
	.00964	.00372	NIL	.00672
	.00988	.00248	.00087	.0126

TABLE II

AIR AND EXTERNAL RADIATION SAMPLES IN UNRESTRICTED AREAS  
OUTSIDE MOAB MILL COMPOUND

URANIUM REDUCTION COMPANY

Samples Taken April 16, 1959

<u>Description</u>	<u>Airborne, UC x 10-11/ml</u>	<u>External mr/hr</u>
North Fence	0.08	0.14
Access Road (MGM River Road)	0.05	0.22
West Section of Moab	0.04	0.020
East Section of Moab	0.06	0.022

Samples Taken April 8, 1960

<u>Description</u>	<u>Airborne, UC x 10-11/ml</u>	<u>External mr/hr</u>
Tailings Pond Roads	0.0074	0.38
West Section of Moab	0.0014	0.022
North Section of Moab	NIL	0.024
South Section of Moab	NIL	0.022

MR - Uv - UnRest — 1.7/10-12

TABLE III

HEARTH DRYER STACK TESTS AT MOAB MILL

URANIUM REDUCTION COMPANY

<u>Sample Date</u>	<u>U<sub>3</sub>O<sub>8</sub> Concentration, UC x 10<sup>-11</sup>/ml</u>
February 6, 1959	1184
February 15, 1959	540
May 13, 1959	146
August 6, 1959	46.5
January 15, 1960	71.7

TABLE IV

BARITE TREATMENT TEST OF MOAB MILL EFFLUENT  
June 22, 1960

Ra 226, UC x 10<sup>-9</sup> / ml

<u>Sample No.</u>	<u>Time, Hour</u>	<u>Treatment Feed</u>	<u>Treated Effluent</u>
0	0	2.7	8.0
1	2	6.8	14.6
2	4	11.4	11.1
3	6	16.7	3.4
4	8	7.1	2.8
5	10	10.1	1.5
6	12	7.7	1.1
7	14	8.1	1.7
8	16	13.3	1.0
9	18	16.7	1.0
10	20	15.0	3.8
11	22	14.4	0.7
12	24	12.8	0.1
13	26	9.8	0.9
14	28	16.2	0.9
15	30	17.6	2.1
16	32	16.1	2.0
17	34	18.6	1.0
18	36	29.3	0.6
19	38	18.8	1.1
20	40	15.6	0.8
21	42	16.8	0.8
22	44	6.2	0.5
23	46	28.4	1.6
24	48	21.4	1.0