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STATE OF NEW MEXICO
INSPECTOR OF MINES DEPARTMENT
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SAFETY FIRST

JOE D. LONGACRE, SR.
STATE INSPECTOR OF MINES

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RADIATION

REPORT OF INSPECTION

I.D. No. 2900782 - Section 35
Church Rock Mine (Kerr-McGee Corporation) { Mine } Typed December 13, 1976
(Name) November 15,16,17,18, 1976
(Date of Inspection)

Uranium (Classification of Mine) | McKinley (County in which located) | Larry Jim, Ventilation Technician (Company representative present at inspection)

Pursuant to the Mining Laws of the State of New Mexico, Section 63-4-8, an inspection, as designated above, has been made. During this inspection the following was noted:

GENERAL INFORMATION

Owner: U. S. Department of Interior, Bureau of Indian Affairs

Operator: Kerr-McGee Corp.

Location: approximately 20 miles NE of Gallup, NM, at end of State Hwy. 566.

Employees:

Total	261
Surface	15
Underground	246

Work Schedule:

Hours per shift	8
Shifts per day	3
Days per week	6

Company Officials:
Bill Young, Manager of Operations
Al Phlieger, Mine Superintendent
Jim Cleveland, Environmental and Industrial Hygiene Supervisor
John Green, Safety Engineer

Mining method: haulage development and modified room and pillar

Previous inspection: August 5-10, 1976, and the report was posted.

The inspector was accompanied by Donna House and Larry Jim during protions of the inspection. Duplicate radon-daughter samples were taken for comparison purposes.

The mine is opened by one five compartment 14' I.D. concrete lined shaft 1851 feet deep. The shaft is used for ventilation, hoisting and lowering of men and materials and for hoisting muck.

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ONE COPY OF THIS REPORT SHALL BE POSTED IN A CONSPICUOUS PLACE AT THE MINE

VENTILATION

The mine is ventilated by some 326,000 c.f.m. of air delivered and exhausted through the following openings:

Opening	I.D.	Air Direction	Ventilation c.f.m.	Fan	HP	Depth of Opening
Shaft	14'	downcast	265,000	-	-	1851'
No. 1 B.H.	5'	upcast	130,000	Buffalo Cent.	400	1783'
No. 2 B.H.	5'	upcast	121,000	Westinghouse Cent.	400	1660'
No. 3 B.H.	5'	upcast	75,000	Joy	(2)125	1720'
No. 4 B.H.	5'	downcast	61,000	-	-	1565'

Main fans were surface mounted electrically powered centrifugal and axial flow type units. All boreholes were steel lined throughout the length of the opening.

Air to the working places underground were distributed by directing the primary airflow by use of auxiliary fans and vent tubing. Air doors, bulkheads and curtains were used to control the underground airflow.

Sample No.	Sample Location	Ventilation c.f.m.	Man-Shift Exposure M&M	Stopes	Haulages	Working Level
1	8102 stope drill	500	1.5	2.0		0.1
2	8102 No. 2 stope slusher	800	1.5	1.0		Nil
3	8102 No. 1 stope slusher	700	1.4	1.0		0.1
4	8101 stope drill	500	1.5	2.0		0.8
5	8101 stope slusher	500	1.5	2.0		0.7
6	8100 haulage drift	8,000	1.5		1.5	0.6
7	1081 haulage drift	60,000	1.5	1.0	1.5	Nil
8	1081 haulage development	9,000	1.5	3.0		Nil
9	8301 raise development	10,000	1.5	2.0		Nil
10	6900 haulage development	10,000	1.5	2.0	1.5	0.1
11	6000 lunchroom	3,000	1.5	0.5	1.5	0.1
12	6005 raise development	1,000	1.5	2.0		0.4
13	6004 stope drill	1,000	1.4	1.0		2.4
14	6004 stope slusher	2,500	1.5	1.0		0.1
15	6003 stope slusher	3,000	1.4	1.0		0.1
16	6003 stope drill	3,000	1.5	0.7		0.1
17	6003 working drift	3,000	1.5	0.3		0.2
18	6002 stope slusher	900	1.4	1.0		0.1
19	6002 stope drill	3,000	1.5	1.0		0.1
* 20	2000 haulage drift	4,000	1.4		1.5	2.4
* 21	2001 working drifts	700	1.5	1.0		2.1
* 22	2001 stope slusher	500	1.5	1.0		1.5
23	1802 working drift	1,500	1.5	1.0		0.5
24	1802 stope slusher	1,000	1.5	1.0		0.2
25	1801 slusher set up	free flwo	1.5	2.0		0.5
26	0800 haulage development	eddy flow	1.5	4.0	1.5	0.2
27	1603 raise development	2,000	1.5	2.0		0.1
28	1602 air tugger	6,000	1.5	0.3		0.8
29	1602 stope slusher	2,000	1.5	1.0		0.1
30	1602 working drift	2,500	1.5	0.7		0.3
31	1601 raise development	5,000	1.5	2.0		Nil
32	1600 haulage drift	10,000	1.5		1.5	0.2

Sample No.	Sample Location	Ventilation c.f.m.	Man-Shift Exposure M&M	Stopes	Haulages	Working Level
33	1200 haulage drift	47,000	1.5		1.5	Nil
34	1400 haulage drift	25,000	1.5		1.5	0.1
35	1403 stope slusher	free flow	1.5	2.0		0.1
36	1403 stope drill	2,000	1.5	2.0		0.1
37	1402 stope drill	1,000	1.5	1.0		0.2
38	1402 stope slusher	700	1.5	1.0		0.3
*39	1401 stope slusher	8,000	1.5	1.0		1.7
40	1401 longhole drill	1,500	1.5	1.0		0.2
41	0201 working drift	2,000	1.5	1.0		0.4
42	0201 stope slusher	900	1.5	1.0		0.9
43	0401 stope slusher	700	1.5	1.0		0.1
44	0402 raise development	2,300	1.5	2.0		Nil
45	1-4 run around	10,000	1.5	2.0	1.5	Nil
46	1-4 maintenance shop	12,000	1.5		1.5	Nil
** 47	2000 haulage drift	- Resample, Cease Work Order Abated.				0.2
** 48	2001 stope slusher	1,000 Resample, Cease Work Order Abated.				0.2
** 49	2001 working drift	2,000 Resample, Cease Work Order Abated.				0.5
** 50	1401 stope slusher	1,200 Resample, Cease Work Order Abated.				0.6
51	1-4 lunchroom	free flow	1.5	0.5	1.0	0
52	6004 stope drill	1,000 Resample		2.0		1.3
53	5002 raise borer	eddy flow	1.5	4.0		0.7
54	5004 cut out	eddy flow	1.5	2.0		0.9
55	4001 stope drill	2,500	1.5	0.5		Nil
56	4001 working drift	2,000	1.5	0.5		Nil
57	4001 No. 2 stope slusher	1,000	1.5	0.5		Nil
58	4001 No. 1 stope slusher	600	1.5	0.5		0.2
** 59	6004 stope drill	2,000 Resample, Cease Work Order Abated.				0.6
			79	66	18	

The time-weighted average for the various classes of mine personnel and the total mine index are as follows:

Maintenance and Management- 0.4 x working level
Stopes and Developments - 0.4 x working level
Haulages - 0.3 x working level
Total Mine Exposure Index - 0.4 x working level

ENFORCEMENT

Due to the concentration of radon-daughters the following enforcement was necessary.

Order No. 1
Date: November 15, 1976 Time: 2:00 p.m.
To: Al Phlieger, Mine Superintendent, Section 35 Church Rock Mine, Kerr-McGee Corporation.

"Pursuant to New Mexico State Mine Laws, Section 63-4-5(c) and 63-4-12, and regulations adopted by this office and under the authority conferred by this office thereby - you are hereby ordered to Cease all operations of production or productive usage of the 6004 stope drill position for the reason of radon-daughter concentrations above 1.0

working level and such order will remain in effect until the radon-daughter concentration is reduced below 1.0 working level and abated by this department. Failure to comply with this order will result in prosecution for its violation."

The above order was abated in full as of November 18, 1976.

Order No. 2
Date: November 16, 1976 Time: 11:30 a.m. 3:00 p.m.
To: Al Phlieger, Mine Superintendent, Section 35 Church Rock Mine, Kerr-McGee Corporation

"Pursuant to New Mexico State Mine Laws, Section 63-4-5(c) and 63-4-12, and regulations adopted by this office and under the authority conferred by this office thereby - you are hereby ordered to Cease all operations of production or productive usage of the 2000 haulage drift, 2001 stope, 1401 stope slusher for the reason of radon-daughter concentrations above 1.0 working level and such order will remain in effect until concentrations of radon-daughters are reduced below 1.0 working level and abated by this department. Failure to comply with this order will result in prosecution for its violation."

The above order was abated in full as of November 17, 1976.

NOTICES ISSUED NOVEMBER 18, 1976

Notice No. 1, Section 63-28-17, NMSA: The man in 1000 haulage drift shall wear eye protection. (57.15-4M) Abated 11-18-76.

Notice No. 2, Section 63-28-17, NMSA: The man in 6900 haulage development shall wear eye protection. (57.15-4M) Abated 11-18-76.

Notice No. 3, Section 63-28-17, NMSA: The man in the 1403 shall wear eye protection. (57.15-4M) Abated 11-18-76.

Notice No. 4, Section 63-28-17, NMSA: The longhole driller in 1401 stope shall wear eye protection. (57.15-4M) Abated 11-18-76.

Notice No. 5, Section 63-28-17, NMSA: The man in 6004 shall wear eye protection. (57.15-4M) Abated 11-18-76.

Notice No. 6, Section 63-28-6, NMSA: Additional ground control shall be required in the 1403 stope. Abated 11-18-76.

Notice No. 7, Section 63-28-6, NMSA: Additional ground control shall be required in the 4001 drill position. Abated 11-18-76.

Notice No. 8, SIM Rule No. 71-2(2c): Smoking shall be prohibited in the 1401 longhole drill position. (57.5-41M) Abated 11-18-76.

Notice No. 9, SIM Rule No. 75-3(2a): The men in 6004 stope shall be provided with ear protection. (57.8-50M) Abated 11-18-76.

Notice No. 10, Section 63-28-9, NMSA: Dust shall be controlled at the 2001 stope slusher. Abated 11-18-76.

Notice No. 11, Section 63-28-9, NMSA: Dust shall be controlled at the 1802 stope slusher. Abated 11-18-76.

Notice No. 12, Section 63-28-9, NMSA: Dust shall be controlled at the 0401 stope slusher. Abated 11-18-76.

Notice No. 13, Section 63-28-9, NMSA: Dust shall be controlled at the two stope slushersin 4001 stope. Abated 11-18-76.

Notice No. 14, SIM Rule No. 71-1(2c): The oxygen and acetylene bottles in 1402 stope shall be properly secured. Abated 11-18-76.

There is a need to enforce the wearing of safety glasses or other eye protection in the underground working places.

The dust control program in the stope slusher positions is in need of improvement.

The notices were discussed with Mr. Al Phlieger and Mr. John Green at the conclusion of the inspection.

ACKNOWLEDGEMENT

The courtesy and cooperation of the staff and personnel of the Section 35 Churchrock Mine during the inspection are hereby gratefully acknowledged.

Inspected and Reported by:
George C. Henckel
Dust and Mine Gas Engineer
Deputy Inspector of Mines

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Approved: Joe D. Longacre Sr.
JOE D. LONGACRE, SR.
State Inspector of Mines