

H. L. Price, Director, Division of Licensing
and Regulation, Washington

March 30, 1959

Donald I. Walker, Director, Division of
Licensee Inspection, Idaho Operations Office

ORIGINAL SIGNED BY
DONALD I. WALKER

FOLLOW-UP INSPECTION REPORT, URANIUM REDUCTION COMPANY, MMAB, UTAH
SOURCE MATERIAL LICENSE NO. R-161

LI:DIW

You will find enclosed one copy of the subject report.

The licensee has been cited for the following items of noncompliance:

10 CFR 20.201 Surveys

- (b) The determination of dosages to personnel from external radiation has not been completed.
- The determination of concentrations of airborne radioactive materials has not been completed.
- The program for determining concentrations of radioactive materials in waste liquids released into unrestricted areas has been formulated but not initiated.

From the amount of work that the licensee has accomplished to determine their degree of compliance with the regulations, it appears that it has taken some time for them to get into high gear. This was one of several mills which had hoped to avail themselves of the survey service that the Colorado School of Mines Research Foundation had contemplated offering to the mills. Upon finding out that the Foundation had decided not to become involved in the mill surveys, the licensee then began to do some planning to accomplish the surveys by themselves.

The survey made by the licensee, for radiation levels covering 124 locations in and around the mill, was very complete. Their survey did point out that some of the personnel may be subjected to dosages in excess of 75 mrem/week and an initial film badge program was started. In view of the dosages received by some of their personnel, it was suggested that it might be well to expand the film badge program for additional information on those working in the tailings area and the yellow cake barreling area and perhaps to employees in other areas where borderline radiation levels exist.

(Continued)

OFFICE ▶						
SURNAME ▶	9612200038	590330				
	PDR	ADOCK	04003453			
	C		PDR			
DATE ▶						

March 30, 1959

Their program for evaluating air contamination is just getting under way. Mr. Winn stated that the only sampler they had was a Staplex high-volume, which had been modified to take filter paper smaller than the regular 4-inch. Winn said that the sampler, with the adapter, had been roughly calibrated for the volume per unit time but was not believed to be too accurate. As a result, air samplers with flow rates of 20-30 liters per minute were on order and would be used for an extensive program once they had been received.

Winn and Izzo stated that they were quite concerned about the radium concentrations in the liquid effluents entering the Colorado River. As noted in the report, the findings of the Winchester Laboratory had been reported to Winn verbally, though these figures were not included in the report. According to Mr. Winn, the amount of radium found by Winchester in the river water, above the point of release of their effluents, was 2 to 3 times the MPC of Table II, Appendix B, 10 CFR 20, while that in their effluent was about 2000 times the MPC. The overall increase in the concentrations of radium down stream had not been reported to them. You may, therefore, realize why they are disturbed about the effluent problem and are anxious to find a commercial laboratory that will perform radium analyses for them. Mr. Winn stated that they did not feel that they had the immediate competency to perform the analyses themselves, but were contemplating a suitable program in their analytical laboratory if the Winchester results were verified by a commercial assayer.

The signs which they have used for posting the entrances are of about the same size as those used at the Union Carbide Nuclear Company's facilities, but in this case, the signs have been strategically located. With the one exception noted in the report, the truck entrance where an additional sign was suggested, it would be practically impossible for any one to enter the plant area without seeing the signs.

In view of the above information, I would recommend that you contact the licensee through Mr. Hollis, General Manager, to:

1. Inform him of the items of noncompliance, with acknowledgement of the work thus far performed.
2. Request information as to their final decision to utilize more film badges in assessing dosages to personnel.
3. Request information as to when their program for surveying air contamination is expected to be complete.

(Continued)

OFFICE ▶						
SURNAME ▶						
DATE ▶						

H. L. Price

- 3 -

March 30, 1959

4. Supply them with information as to analytical laboratories, if any, that are known to make radium analyses.
5. Thank him for the cooperation shown to Mr. George and myself during the inspection.

The corrective action taken by the licensee will be reviewed during a follow-up inspection.

Enclosure:

Inspection Report

Uranium Reduction Co. (1 cy)

CC: Marvin M. Mann, Asst. Director,
Compliance, Div. of Inspection, Wash. w/orig and 2 cys rpt
W. S. Hutchinson, Jr., Director, Div.
of Source Material Procurement, Grand Junction w/1 cy rpt

BCC: W. J. Lagarde, ID Liaison Officer, Wash. w/o encl.

OFFICE ▶	LI					
SURNAME ▶	DIWalker:lo					
DATE ▶	3-25-59					