

PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA

MINING AND MILLING DEPARTMENT

November 14, 1960

AEC Regulation Part 20
Proposed Amendments

Re: HI-432-60MM

Mr. H. L. Price, Director
Division of Licensing & Regulations
U. S. Atomic Energy Commission
Washington, D. C.

Dear Mr. Price:

After careful study of the proposed amendments to Part 20, Standards For Protection Against Radiation, effective January 1, 1961, as published in the Federal Register for September 7, 1960, we have found a few inequities in the new provisions which are valueless to and impose an unnecessary hardship on the uranium mills. Since it is the expressed policy of the Atomic Energy Commission to be flexible in applying the regulations to individual situations, we wish to submit the following items for your consideration:

Section 20.202, paragraph a, 1.

"Each individual who enters a restricted area under such circumstances that he receives or is likely to receive a dose in any calendar quarter in excess of 25 percent of the applicable value specified in paragraph (a) of section 20.101", as amended.

In the case of uranium mills, there are no areas in which an employee could possibly be exposed to external radiation in his usual day to day tasks, which could approach the revised maximum permissible value per calendar quarter. But because the maximum permissible levels are so extremely low, the quarterly exposure for any employee might vary from background to slightly above one-quarter of the maximum permissible value for any one calendar quarter period. Relaxation of this provision in the case of the uranium mills would still permit adequate protection and monitoring for the exceptional employee assigned to an unusual task by the provision in section 20.202, paragraph (c), 2. This secondary provision requires monitoring when the expected exposure exceeds 5 millirem per hour or a dose in excess of 100 millirem in any 5 consecutive days.

Section 20.103, paragraph (d) 1, 2 and 3 with subparts.

"Except as authorized by the Commission pursuant to this paragraph, no allowance shall be made for particle size or the use of protective clothing or equipment in determining whether an

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Mr. F. L. Price, Director

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individual is exposed to an airborne concentration in excess of the limits specified in Appendix B, Table I."

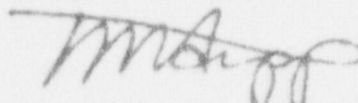
The particle size of the airborne dusts in uranium mills are such that respiratory protective equipment, bearing the approval of the U. S. Bureau of Mines for protection against toxic dusts, prevent the inhalation of such dust when properly adjusted to the face of the wearer. No manufacturer known to us makes specific tests to determine the efficiency of their respiratory protective equipment against uranium dust and the U. S. Bureau of Mines has no official test schedule for testing equipment against uranium dust.

Since the use of respiratory equipment in uranium mills is restricted to brief and intermittent periods of time during specified tasks and since the procedures for fitting, maintenance and cleaning of such equipment have already been made known to the Commission by the individual mills, we hope these facts will be considered when the regulations are applied to the uranium milling industry.

Appendix B, Table 1

Mr. L. R. Rogers of your division presented a method for calculating the maximum permissible levels of uranium ore dust and yellow cake (final product) dust in uranium mills. We urge the adoption of these maximum permissible levels since it will simplify the testing procedures at no sacrifice of protection to the employees.

Very truly yours,



T. M. Price, Director
Mining and Minerals Department

BM:am

L. D. Low, Director, Division of
Compliance, AEC Headquarters

10-24-60

Allan C. Johnson, Manager
Idaho Operations Office

URANIUM MILL INSPECTIONS

M:ACJ

In reviewing the status of the uranium mill inspection program with Dr. Walker, he has brought the following information to my attention concerning six (6) of the mills, whose license renewal applications are pending.

Cotter Corporation, Canon City, Colorado - License R-197

This mill was initially inspected on March 26, 1959, and the latest subsequent correspondence occurred on October 6, 1959. Cotter's license expired on December 31, 1959, and application for renewal was made by the licensee on December 18, 1959, less than the 30 days required for a "timely" application.

Honestake-New Mexico Partners, Grants, New Mexico - License R-214

The initial inspection at this mill occurred on January 27, 1959, and the latest subsequent correspondence was written on October 15, 1959. Their license expired on February 28, 1959, and request for renewal was not "timely", but on February 17, 1959.

Honestake-Sagin Partners, Grants, New Mexico - License R-213

The initial inspection was conducted on January 27, 1959, with no subsequent correspondence between the Commission and the licensee since July 7, 1959. The license expired on February 29, 1960, and the licensee filed a "timely" application on January 14, 1960.

Kermac Nuclear Fuels Corporation, Grants, New Mexico - License R-217

This mill was initially inspected on January 28, 1959, and there has been no subsequent correspondence since June 29, 1959. Kermac's license expired on December 31, 1959, and they did not make application for renewal until January 22, 1960.

Lakeview Mining Company, Lakeview, Oregon - License R-151

Initially inspected on May 28, 1959, the mill has had no subsequent correspondence with the Commission since July 23, 1959. While their license expired on April 30, 1960, Lakeview did file a "timely" application on January 14, 1960.

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Phillips Petroleum Co.

10-24-60

Phillips Petroleum Company, Grants, New Mexico - License R-216

The Phillips' mill was initially inspected on January 28, 1959, with no subsequent correspondence between Phillips and the Commission since June 6, 1959. A "timely" application for renewal of the license was filed on October 15, 1959, since their license did not expire until December 31, 1959.

It should be noted that, from the above data, it appears that three of the above six mills, Cotter Corporation, Homestake-New Mexico Partners, and Kermac Nuclear Fuels Corporation, have been continuing to operate without a license for periods in excess of nine (9), twenty (20), and nine (9) months, respectively.

Dr. Walker has referred me to your Inspection Guide, II.074, which states "Follow-up and reinspections should not be scheduled until action has been completed on the last previous inspection by the Division of Licensing and Regulation."

Since each of the six mills above has a license application pending, and since, in each case, it has been in excess of one year since there has been additional correspondence concerning each mill's inspection (and a minimum of 17 months since the last inspection of any of the six mills), it would appear that another inspection of each of these mills would be mandatory in the immediate future. Both Dr. Walker and myself feel that another inspection of each, with the subsequent findings, would be of material value in assisting the Commission in evaluating the license applications which have been submitted and also be informative as to what progress, if any, each has made toward compliance with the regulations.

May I request, therefore, that you consider the advisability of immediate inspections of these mills and advise me of your conclusions.

CC: F. K. Pittman, HED

D. I. Walker, ID

cc: L. E. Snyder, ID Liaison Officer, HED

Phillips

L. D. Low, Director, Division of Compliance,
AEC Headquarters

October 10, 1960

Ronald I. Walker, Director, Licensee Compliance
Division, Idaho Operations Office

STATUS OF INSPECTION, URANIUM ORE PROCESSING MILLS

LC:RXX

In order that the quarterly submission of the subject report might more closely coincide with the submission date of the Quarterly Licensee Inspection Report, this report is being submitted approximately two months following the previous mill status report.

Insofar as this office is aware, no new development has transpired concerning the forthcoming operation of the uranium ore processing mill at Falls City, Texas.

According to our information, the status of the uranium mills under the inspectional jurisdiction of this division is as follows:

R-138, The Amecoma Company, Grants, New Mexico

6/30/60 Expiration date
 No knowledge of application for renewal

5/3/60 Follow-up (1) inspection conducted
7/12/60 Report forwarded to CO
7/26/60 Report forwarded to LAR
 Action not complete

R-134, Climax Uranium Company, Grand Junction, Colorado

7/31/59 Expiration date
6/24/59 &
6/8/60 Application for renewal made
 Action on renewal of license still pending

6/30/60 Reinspection (1) conducted
9/23/60 Report forwarded to CO

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R-157, Kerr-McGee Oil Industries, Inc., Shiprock, New Mexico (cont.)

6/13/60 Follow-up (1) inspection conducted
8/23/60 Report forwarded to CO
9/21/60 Report forwarded to LAR
Note: 8/31 - 9/2/60 Investigation conducted
10/6/60 Report mailed

R-151, Lakeview Mining Company, Lakeview, Oregon

4/30/60 Expiration date
1/14/60 Application for renewal made
Action on renewal of license still pending

5/28/59 Initial inspection conducted
7/23/59 Report forwarded to LAR
No known action taken by LAR
Action not completed

R-223, Lucky McDrumius Corporation, Riverton, Wyoming

1/31/60 Expiration date
12/28/59 Application for renewal made
Action on renewal of license still pending

1/12/60 Follow-up (1) inspection conducted
3/25/60 Report forwarded to LAR
No known action taken by LAR
Action not completed

R-174, Mines Development, Inc., Edgemont, South Dakota

4/1/62 Expiration date

4/14/59 Follow-up (1) inspection conducted
7/2/59 Report forwarded to LAR
11/2/59 Order issued
5/17/60 Hearing
Hearing decision pending
Action not completed

R-216, Phillips Petroleum Company, Grants, New Mexico

12/31/59 Expiration date
10/15/59 Application for renewal made
6/24/60 LAR requested additional information concerning application

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E-216, Phillips Petroleum Company, Grants, New Mexico (cont.)

1/28/59 Initial inspection conducted
2/19/59 Report forwarded to L&R
5/7/59 L&R requested additional information
6/6/59 Licensee replied to 5/7/59 letter
No additional correspondence known
Action not completed

E-232, Porter Brothers Corporation, Boise, Idaho

6/30/60 Expiration date
Application for renewal not known

9/19/57 Initial inspection conducted on License No. R-150
10/21/57 Report forwarded to L&R
1/3/58 L&R requested additional information
1/20/58 Licensee replied to 1/3/58 letter
Action not completed

9/21/60 Inspection conducted
Report in progress

E-172, Rare Metals Corporation, Tuba City, Arizona

3/31/62 Expiration date

9/23/60 Follow-up (2) inspection conducted
Report in progress

III E-230, Salmon River Uranium Development, Inc., Salmon, Idaho (thorium mill)

6/30/59 Expiration date
7/16/59 L&R requested additional information in order to renew
license
Action on renewal of license still pending

9/26/60 Mill visit by ID inspection personnel
Mill not in operation and currently classified as not
inspectable

II E-229, Sawyer Petroleum Company, Los Angeles, California (thorium mill)

2/29/60 Expiration date
Application for renewal not known

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Office Memorandum • UNITED STATES GOVERNMENT

TO : Donald I. Walker, Director, Division
of Licensee Inspection, ID

DATE: August 19, 1960

FROM : Clyde A. Hawley, Jr., Inspector
Division of Licensee Inspection, ID

SUBJECT: DISCUSSION OF ENVIRONMENTAL AIR SAMPLING WITH MILL PERSONNEL

SYMBOL: LI:CAN

I contacted the following people by telephone on the dates indicated below, and discussed with them the Commission's current interest in environmental air sampling.

8/17/60	Cotter Corporation - David P. Marcott, Mill Supt.
8/17/60	Homestake-New Mexico Partners - Clyde E. Osborn, Mill Supt.
8/17/60	Homestake-Sagin Partners - F. M. Howell, Consulting Engineer and ex-mill manager
8/17/60	Kernac Nuclear Fuels Corp. - H. R. Keil, Mill Foreman
8/18/60	Lakeview Mining Company - John Veichies, Mill Supt.
8/18/60	Lucky Mc Uranium Corp. - Ian Ritchie, Mill Supt.
8/19/60	Mines Development, Inc. - Harold D. Webb, Mill Supt.
8/19/60	Phillips Petroleum Company - W. O. Bice, Mill Supt.
8/15/60	Rare Metals Corporation - C. F. Gammel, Mill Supt.
8/19/60	Vanadium Corporation - J. A. Maxwell, Mill Supt.

During the discussions, the following ideas were mentioned, with the stipulation being made that the licensees could do as they chose:

Sampling directly at the orifice of any stack which might be contributing radioactive materials to the atmosphere.

Calculating rate of airflow through the stacks to determine concentrations of uranium released to atmosphere (unrestricted areas).

Sampling at points along the perimeter of the restricted areas.

Sampling between mill and inhabited areas and in the inhabited areas.

Sampling in varying conditions of wind and weather.

Setting up regular sampling schedule in conjunction with sampling schedule within the restricted area.

Maintaining the sampling schedule until a definite picture is evolved.

Use of hi-volume air samplers.

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CC: A. D. Low