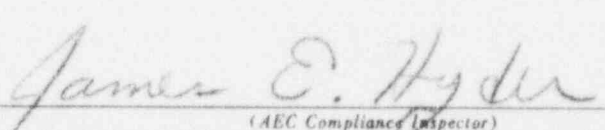


INSPECTION FINDINGS AND LICENSEE ACKNOWLEDGMENT

1. LICENSEE Mines Development, Inc. P.O. Box 49 Edgemont, South Dakota 57735	2. REGIONAL OFFICE U. S. ATOMIC ENERGY COMMISSION REGION IV, DIVISION OF COMPLIANCE 10395 W. COLFAX, ROOM 200 DENVER, COLORADO 80215
3. LICENSE NUMBER(S) SUA-816 (Docket No. 40-1341)	4. DATE OF INSPECTION October 27, 1969
5. INSPECTION FINDINGS <input checked="" type="checkbox"/> A. No item of noncompliance was found. <input type="checkbox"/> B. Rooms or areas were not properly posted to indicate the presence of a RADIATION AREA. 10 CFR 20.203(b) or 34.42 <input type="checkbox"/> C. Rooms or areas were not properly posted to indicate the presence of a HIGH RADIATION AREA. 10 CFR 20.203(c) (1) or 34.42 <input type="checkbox"/> D. Rooms or areas were not properly posted to indicate the presence of an AIRBORNE RADIOACTIVITY AREA. 10 CFR 20.203(d) <input type="checkbox"/> E. Rooms or areas were not properly posted to indicate the presence of RADIOACTIVE MATERIAL. 10 CFR 20.203(e) <input type="checkbox"/> F. Containers were not properly labeled to indicate the presence of RADIOACTIVE MATERIAL. 10 CFR 20.203(f) (1) or (f) (2) <input type="checkbox"/> G. A current copy of 10 CFR 20, a copy of the license, or a copy of the operating procedures was not properly posted or made available. 10 CFR 20.206(b) <input type="checkbox"/> H. Form AEC-3 was not properly posted. 10 CFR 20.206(c) <input type="checkbox"/> I. Records of the radiation exposure of individuals were not properly maintained. 10 CFR 20.401(a) or 34.33(b) <input type="checkbox"/> J. Records of surveys or disposal were not properly maintained. 10 CFR 20.401(b) or 34.43(d) <input type="checkbox"/> K. Records of receipt, transfer, disposal, export or inventory of licensed material were not properly maintained. 10 CFR 30.51, 40.61 or 70.51 <input type="checkbox"/> L. Records of leak tests were not maintained as prescribed in your license, or 10 CFR 34.25(c) <input type="checkbox"/> M. Records of inventories were not maintained. 10 CFR 34.26 <input type="checkbox"/> N. Utilization logs were not maintained. 10 CFR 34.27 <div style="text-align: right;"> (AEC Compliance Inspector)</div>	
6. LICENSEE'S ACKNOWLEDGMENT The AEC Compliance Inspector has explained and I understand the items of noncompliance listed above. The items of noncompliance will be corrected within the next 30 days. <div style="text-align: center;">Enclosure NO. 22 C-5-b</div> <div style="display: flex; justify-content: space-between;"><div>(Date)</div><div>(Licensee Representative -- Title or Position)</div></div>	

ORIGINAL: LICENSEE. COPIES: ☒ CO REGION ☐ CO HEADQUARTERS ☐ CO ENFORCEMENT

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PDR ADDCK 04001341
C PDR

PART 1

Inspector: HyderDate of Inspection: 10-27-69Licensee: Mines Development, IncAddress: Edgemont SDLicense No.: SA 7-816

II:

AEC-591 ✓A. Clear case (~~Initial~~ Reinsp) ✓B. Clear case (F/U of 592) C. Noncompliance case

III:

AEC-417 A. Immediate Public Health and Safety Threat B. Expenditure of more than nominal sum for compliance C. Excess of 90 days appears necessary to achieve enforcement D. N/C items of particular complexity ; Licensing problems ; Requires Headquarters interpretation E. Appropriate for "Notice of Alleged Violation" F. Uncorrected previous noncompliance G. Other

IV:

AEC-592 A. Involves nonsignificant risk B. Involves significant risk

PART 2

I II
R(4)Date Dispatched NOV 3 1969Suspense Date

V and VI:

1. Adequate reply received from licensee:

 ; Copy to L&R for info
(Date)

2. Inadequate reply received from licensee:

Forwarded to L&R for action
(Date)3. No reply received from licensee and forwarded to L&R for action

Note: If F/U is made on No. 1, 2, or 3 above, check a. or b. below:

a. F/U shows satisfactory corrective action:

cy AEC-591 to L&R for info TWX report to L&R

b. F/U shows incomplete corrective action:

TWX report to L&R

VII:

ELAPSED DAYS INFO:

No. of days from date of Inspection to issuance of AEC-592:

10 or less ; 11 to 15 ; 16 to 20 ;21 to 25 ; over 25

From issuance of AEC-592 to licensee reply:

20 or less ; 21 to 30 ; 31 to 40 ;over 40

From Inspection date to date of F/U Inspection

20 or less ; 21 to 40 ; 41 to 60 ;61 to 90 ; 91 to 120

VIII:

Additional follow-up by agreement with L&R

1. Mines Development, Inc.,
P. O. Box 49
Edgemont, South Dakota 57735
2. SUA-816 (Docket No. 40-1341), I, II
3. October 27, 1969, Unannounced reinspection
4. Persons accompanying inspector:
Mr. Don Kurvink, South Dakota State Department of Health
5. Persons contacted:
Mr. K. L. Hudson, District Manager
6. At the time of the above inspection, the Mines Development, Inc., uranium mill at Edgemont, South Dakota, was not operating. However, since the previous inspection the mill had operated during October, November, and December, 1968. Records of surveys were reviewed and no items of noncompliance were noted.

Therefore, Form AEC-591, indicating a clear inspection was issued at the conclusion of the visit.
7. May 13, 1968
8. No

<u>Hyder</u>	James E. Hyder	<u>2/1/70</u>
Initials	Inspector	Date
<u>GB</u>	Glen D. Brown	<u>2/1/70</u>
Initials	Reviewer	Date

Inspection History

9. As the result of an unannounced reinspection conducted May 13, 1968, the licensee was notified by Form AEC-592 dated May 24, 1968, of the following item of noncompliance:

"During the fourth quarter of 1967, samples of Cottonwood Creek, Cheyenne River, and the Edgemont water supply were not collected and analyzed for natural uranium, radium 226, and thorium 230, contrary to License Condition No. 8 which requires that such samples be collected and analyzed in accordance with procedures described in the application dated March 17, 1964."

The licensee replied by letter dated June 3, 1968, signed by Mr. K. L. Hudson, District Manager, Mines Development, Inc., and stated that the failure to collect and analyze samples was due to interruption in the normal routine and to recent changes in management and laboratory personnel. This letter goes on to state that all personnel involved with the collection and reporting of the above samples were advised during the 1st quarter, 1968, that all provisions of SUA-816 must be complied with at all times.

10. During the current inspection, it was determined that during the 4th quarter 1968, during which the mill did operate, appropriate samples were collected and analyzed for uranium, radium and thorium as required by License Condition 8.

Current Status

11. At the time of the current inspection of the Edgemont uranium mill which is operated by Mines Development, Inc., it was determined that no uranium was being processed. However, Mr. Hudson, District Manager, stated that it was anticipated that the facility would start processing uranium ore during November, 1969. Extensive repair work was in progress and Hudson stated that the principal obstacle in renewal of uranium processing was the upgrading of the solvent extraction system and the product dryer system.
12. Mr. Hudson stated that they were now actively stripping the first pit and he expected to obtain ore from ^{the} open pit by approximately mid-November, 1969. Hudson pointed out that they were now building ore bins for storing ore prior to the crushing circuit.

Radiation Safety Program - Mill Operations

13. The Mines Development uranium mill at Edgemont, South Dakota, had operated during October, November, and December, 1968. During this operation, water samples were collected from upstream and downstream of the Cottonwood Creek and up stream and downstream of the Cheyenne River, as well as the *mill feed water* and ~~a sample collected~~ from the city water supply. These were assayed by the licensee for uranium and were assayed for Ra-226 and Th-230 by Hazen Research of Golden, Colo. All levels detected have been less than MPC for the specific isotopes. Also, air samples in the unrestricted areas have been collected; these indicate the order of 0.1 to 0.14×10^{-13} uc of uranium per ml of air. These records include information as to weather conditions,

direction and distance from the Mines Development mill, wind direction and velocity, relative humidity, and volume of air collected. Also, during milling operations, a number of air samples have been collected in the restricted area; maximum airborne breathing zones have been on the order of 0.6×10^{-11} uc of uranium per ml of air.

14. Film badges were worn by a total of 13 individuals during the milling operation conducted during the fourth quarter, 1968. Maximum exposure was 280 millirem for the three months' period in which the mill operated.
15. In addition, during the current renovation of the uranium mill, several air samples have been collected, particularly during operations that tend to produce dust. However, the assay for uranium has not indicated excessive concentrations to which employees have been exposed.

Review with Management

16. At the conclusion of this inspection which involved a tour of the mill facility and a review of records generated during operation of the facility for milling uranium during the 4th quarter of 1968, the inspector informed Mr. Hudson, District Manager, that no items of noncompliance had been noted. At this time, Form AEC-591, indicating a clear inspection was issued.