

ENCLOSURE

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket No.: None
License No.: P-2802

License
Active: October 25, 1955 - December 1, 1957

Report No.: 999-90004/96-10

Licensee: International Ranwick Limited

Location: Mining Claims in San Juan County, Utah,
and San Miguel County, Colorado

Mailing
Address: P.O. Box 1715
Cortez, Colorado

Date: September 5, 1996

Inspector: Robert J. Evans, P.E., Health Physicist

Approved By: Charles L. Cain, Technical Assistant
Division of Nuclear Materials Safety

Report Details

1 Oak Ridge National Laboratory Review of the License

The Oak Ridge National Laboratory (ORNL) recently performed a review of over 16,000 NRC and Atomic Energy Commission (AEC) terminated licenses. ORNL assigned numerical scores to the former licensees, based on the potential for residual radioactive contamination and availability of materials disposition documentation in the retired docket files. Several former licensees in the States of Utah and Colorado received numerical scores from ORNL which put the licenses in a category requiring prompt review by the Region IV staff. This former licensee received an ORNL score of 66.

Several concerns were identified during the ORNL review of the docket file:

- There was some likelihood that meaningful outdoor contamination could have occurred at the site.
- There was possible inappropriate disposal or abandonment of contaminated waste material in the site operation.
- There was no documentation of materials disposition.
- There was no closeout survey or Atomic Energy Commission final inspection of the site.

2 Background Information

According to information found in the 1956 Mines Register, a book that listed the latest information obtainable on mining operations, International Ranwick's main office was listed as 230 Park Avenue in New York City. The company formed in 1949 in Ontario, Canada, and was originally known as Ranwick Uranium Mines Limited. The company changed its name in 1953 to the Consolidated Ranwick Uranium Mines Limited and to International Ranwick Limited in 1955. As of 1956, International Ranwick was partial owners of two additional companies, Four Corners Uranium Syndication and Pronto Uranium Mines Limited.

On October 3, 1955, the International Ranwick Limited company submitted an application to the AEC for possession of source material in San Juan County, Utah, and San Miguel County, Colorado. License P-2802 was issued to the company on October 25, 1955, with an expiration date of October 1, 1956. The license was issued for possession of source material only, not for processing of source material.

On December 1, 1956, International Ranwick submitted a license renewal request to the AEC. The renewal request listed only the mines in the Monticello Mining District of San Juan County, Utah, but not any mining claims in Colorado. The licensee also stated, that as of November 30, 1956, they had 100 tons of source material in their

possession although the actual location of the material was not documented. The license was subsequently renewed by the AEC for an additional year and expired on December 1, 1957.

This license file was originally closed out by the NRC in April 1994 based on the incomplete information available in the docket file. This file was reopened when the specific locations of the mines were obtained during a review of San Juan County records in June 1996.

3 State of Colorado Records Review

The State of Colorado archive files were reviewed for any information about International Ranwick. State records indicate that the company filed for incorporation in the state on August 12, 1955. The company's incorporation was subsequently withdrawn on April 23, 1957.

The San Miguel County, Colorado, mining records were reviewed for any reference to International Ranwick. Neither International Ranwick or the Dalpez Mines (listed in the first license application package submitted to the AEC) were located in the county mining lease grantor and grantee books. Based on a review of the license docket file and state records, no evidence was obtained that clearly indicated that International Ranwick had performed any mining operations in the State of Colorado.

4 State of Utah Records Review

During June 1996, the mining records stored in the San Juan County courthouse were reviewed. The records identified the locations of a number of mines leased to International Ranwick. These mines included the Pete, Lee, Floyd, Lynn Boy, Mel Jim, Even Odds, Betty, Bacon, Chessie, and JoAnne mines. Proof of Labor records stated that the work in all cases consisted of "roads, drill sites, drill holes, and/or surface mapping and geology." No mention was made of any milling activities.

A relevant record was found in the County's Book 164. In a Utah district court case between the plaintiffs (mine lessors) and International Ranwick, on April 5, 1957, a judgement was rendered against the company in the amount of \$100,000. The court ruled that the "defendant shall have 60 days...within which to remove from the (mining claims) any personal property owned by the defendant and not attached to the land." This court decision apparently forced the company out of business in Colorado and in Utah within days of the judgement.

5 Site Visit

Two mines listed in the second license application, the Pete No. 1 and the Lee No. 1 sites, were visited for any evidence of mining activities or residual tailings materials. These two sites, and the adjacent areas, were inspected on September 5, 1996. Both

sites are located in Section 16 of Township 39 South (T39S) and Range 25 East (R25E).

(To reach the sites, take U.S. Highway 191 south out of Blanding, Utah. Turn left (east) on State Road 262 and travel towards the Hovenweep National Monument. Immediately after the Hatch Trading Post, an unusual, multi-road intersection is encountered. Take County Road 412 towards the Hovenweep Monument. Turn left on the dirt road about a half-mile from the intersection after crossing over the bridge. The Pete and Lee mines are about 4 miles down this dirt road on the left (north) side of the road. One surface mine can be seen on the right (south) side of the road opposite of the Lee No. 1 site. The sites are to be found before reaching the high-power transmission lines.)

Two open surface mines were identified during the site visit. One was located several hundred yards south of the Lee No. 1 site. Using a Ludlum Model 19 microroentgen meter, calibrated to a cesium-137 source, an ambient gamma exposure rate of 150 microroentgen per hour ($\mu\text{R/hr}$) was measured on the pile. (The general area background was measured at 10-15 $\mu\text{R/hr}$.) The second open surface mine was located near the Pete No. 1 site. This site measured up to 500 $\mu\text{R/hr}$ on contact with what appeared to be mine overburden material. Blocks of concrete, cans, bottles, and other small debris were found near the second site. In summary, both sites appeared to be small-scale mining operations, no immediate health and safety issues were identified, and no houses were observed in the area of the two sites.

Soil samples were taken from the two surface mine sites. These samples were analyzed in the NRC's Region III office. The results, in picocuries per gram, are:

Site	Total Uranium	Ac-227	Ra-226	Th-232/228	Ratio
Pete No. 1	246 \pm 40	8 \pm 4	206 \pm 30	< 1	1.7
Lee No. 1	121 \pm 20	3 \pm 1	56 \pm 13	3 \pm 0.3	1.0

The Ratio number listed in the last column of the table is the ratio of radium-226 to uranium-238; the higher the ratio, the greater the possibility that the sample contains tailings material. The sample analyses suggest that the Pete No. 1 sample may contain some tailings material while the Lee No. 1 sample contains only source material in the form of ore.

6 Regional Recommendations

The removal of this license from the open ORNL formerly-licensed site list is recommended. There was no documentation which clearly indicated that milling activities had been performed by the former licensee in either Utah or Colorado. In addition, there was no clear evidence of the existence of tailings material at the Utah sites. Although source material in the form of ore appears to have been identified at the site, the material is apparently not under the jurisdiction of the NRC. Therefore,

any future actions required at this site appear to be the responsibility of the State of Utah, which became an agreement state on April 1, 1984. However, the NRC recommends that the State of Utah visit the site to determine if any cleanup is required under current state guidelines.

There was no evidence identified during the review of the docket file and the State of Colorado files that clearly indicated that mining activities had been performed by International Ranwick Limited in that state. Therefore, no specific followup activities are recommended by the NRC for the State of Colorado officials.

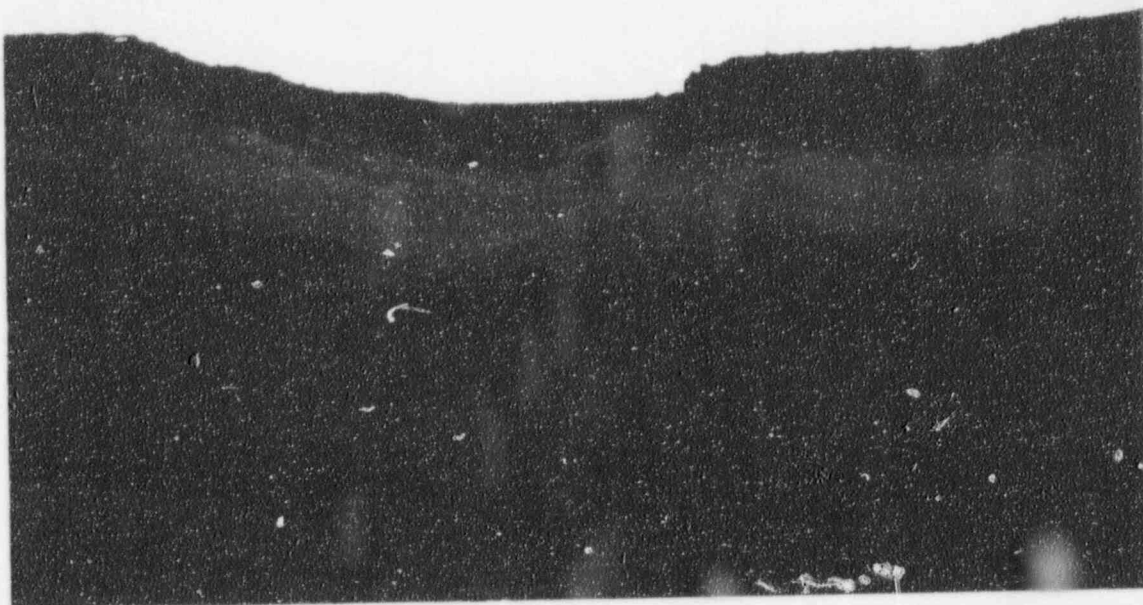
PHOTOGRAPHS TAKEN AT THE INTERNATIONAL RANWICK MINE SITES



Photograph 1 - Site of Lee No. 1 mine claim, looking north from the road (no mining activities were identified in this area).



Photograph 2 - Surface mine south of the Lee No. 1 site.



Photograph 3 - Area of the Pete No. 1 mine claim site.



Photograph 4 - Area of the Pete No. 1 mine claim site.