

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 40-8783/82-01

License No. SUA-1401

Licensee: Uranerz, U.S.A., Inc.
Ruth In Situ Leach (ISL) Retention Ponds
800 Werner Court, Suite #140
Casper, Wyoming 82601

Docket No. 40-8783

Facility: Ruth ISL Project

Inspection at: Ruth ISL Project

Inspection Conducted: August 2-3, 1982

Inspector: Claude E. Johnson
C. E. Johnson, Reactor Inspector, Engineering Section

8-24-82
Date

Reviewed: Glen D. Brown
Glen D. Brown, Chief, Technical Programs Branch

8/24/82
Date

Approved: D. M. Hunnicutt
D. M. Hunnicutt, Chief, Engineering Section

8/24/82
Date

Inspection Summary

Inspection on August 2-3, 1982 (Report No. 40-8783/82-01)

Areas Inspected: Routine, announced inspection of construction activities relative to the construction of the Ruth ISL retention ponds as authorized by Source Material License No. SUA-1401. This inspection involved 11 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

- *Len Marrs, Manager of Operations, Uranerz, U.S.A., Inc.
- Harold Hollingsworth, Principal Engineer, Chen & Associates, Inc.
- *Pat Bullinger, Construction Manager, Chen & Associates, Inc.

*Denotes presence at the exit interview conducted on August 3, 1982.

2. ISL Ponds (1 and 2)

An inspection of the Ruth ISL retention ponds authorized by Source Material License No. SUA-1401 was performed by an NRC inspector. The NRC inspector reviewed Technical Specifications, design drawings, and records of tests performed in the laboratory and field.

a. Observation

The NRC inspector observed the general configuration of the retention ponds as compared to the design drawings. There were some changes made to the ponds such as lowering the entire pond one foot in elevation. This (1'-0") change in elevation did not change the reservoir capacity. This change had been approved by NRC Uranium Recovery Licensing Branch. Other changes were in the leak detection sump; however, this had not yet been installed nor had the Hypalon liner. The retention ponds were about 97% complete at the time of this inspection. The overall construction of the ponds at this stage of the inspection was in accordance with plans and specifications.

b. Compaction Test

The NRC inspector reviewed all records of compaction tests performed by Chen & Associates for the retention ponds. Records indicated that all accepted tests were in compliance with the Technical Specifications. Any test result that did not meet requirements was retested after the area in question was reworked. Density tests were performed by Chen & Associates field engineers. The frequency of density tests performed by Chen & Associates appeared to meet or exceed the requirements of the specification.

The NRC inspector did observe that on 4 field tests out of approximately 82 tests performed, the moisture content did not fall within the limits of 3% dry and 3% wet of the standard optimum moisture content as specified by Technical Specifications. However, compaction

requirements were met on four tests, and according to Chen & Associates field engineer soil was visually in good condition and workable. It has been determined by the NRC inspector and Chen & Associates field engineer that the moisture correction factor was not included in the nuclear density gage at the time these four tests were performed. This was the reason that these tests exceeded the specification limits. The NRC inspector has determined that this will pose no problem to the stability of the pond embankment because compaction requirements were met. The limits exceeded on the four tests were on the wet side. This was an isolated case.

c. Laboratory Test

Moisture-density relationship, gradation, Atterberg limits, and specific gravity tests were performed on soil samples from the retention ponds and also on material to be used as underdrain for the ponds to ensure that material met specifications.

d. Review of Drawing and Details/Specifications

The NRC inspector reviewed the general plans and drawing details for the ISL retention ponds. The plans, specifications, and details were contained in the documents listed below:

- (1) "Technical Construction Specifications Ruth ISL Retention Ponds, Johnson County, Wyoming," for Uranerz, U.S.A., Inc., by Chen & Associates, Inc.
- (2) Drawing Nos. 1 and 2, "Ruth ISL Pilot Project," prepared by Wolz & Associates, Inc., Casper, Wyoming

No violations or deviations were identified.

3. Exit Interview

The NRC inspector met with those individuals listed in paragraph 1 at the conclusion of the inspection on August 3, 1982, and summarized the purpose, scope, and findings of the inspection.