

APPENDIX A  
U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV  
URANIUM RECOVERY FIELD OFFICE

NRC Inspection Report: 40-1341/89-03  
Docket: 40-1341

License: SUA-816

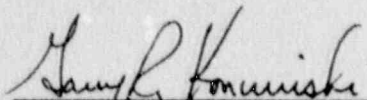
Licensee: Tennessee Valley Authority  
5N 157B  
Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37401-2801

Facility: Edgemont Uranium Mill

Inspection At: Edgemont, South Dakota

Inspection Conducted: December 4 and 5, 1989

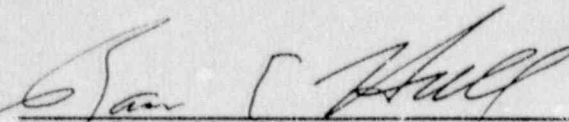
Inspector:

  
Gary R. Konwinski, Project Manager  
Team Leader

12-12-89

Date

Approved:

  
Ramon E. Hall, Director

12-12-89

Date

Inspection Summary

Inspection Conducted on December 4 and 5, 1989 (Report 40-1341/89-03)

Areas Inspected: Announced inspection of tailings relocation and reclamation programs to be implemented during the course of the Edgemont Mill Decommissioning Project. The specific area reviewed included Radioactive Waste Management.

The inspection involved a total of 5 inspector hours onsite by one NRC inspector.

Results: Within the one area inspected, no violations, no deviations and no open items were identified by the inspector.

## DETAILS

### 1. Persons Contacted

- \*Kurt Barker, General Manager, Silver King Mines
- \*Dana Ward, Radiation Safety Officer, Silver King Mines
- \*Dave Scheuerman, Project Manager, Edgemont Decommissioning, TVA, Casper, Wyoming
- \*C. E. Wolff, Manager, Uranium Operations, TVA, Casper, Wyoming
- \*George T. Wilson, Corporate Safety Officer, Silver King Mines
- \*Ray T. Moore, Environmental Specialist, TVA
- \*W. Douglas Yoder, Environmental Scientist, TVA

\*Denotes those present at the exit interview.

### 2. Licensee Action On Previous Inspection Findings

No violations or deviations and one open item was identified during the September 12, 1989 inspection. The open item concerned elevated levels of gamma radiation at the disposal site. A gamma survey conducted by the inspector verified that this situation had been corrected.

### 3. Radioactive Waste Management

The inspector reviewed the cleanup activities that had taken place since the previous inspection. It was noted that the area identified in the previous inspection as having elevated levels of gamma radiation had been scraped and cleaned to background levels of gamma radiation. The contaminated topsoil had been buried in the tailings disposal cell. Subsequent gamma surveys in the areas previously displaying elevated levels of gamma radiation indicated that background levels now existed. This closed a previous open item (40-1341/8902-01).

Records maintained by the licensee, indicated that gamma surveys were conducted in and around the disposal area, at the processing site, and on lands adjacent to these areas. These surveys indicate that all areas have been cleaned to background gamma radiation levels. The inspector confirmed that background gamma radiation levels of 18 to 25  $\mu\text{R}/\text{Hr}$ . existed over the processing site and the disposal area.

In addition to gamma surveys, soil samples were taken at various locations in the processing area during a previous inspection. These soil samples along with several soil samples taken by the licensee confirm that no areas have soil radium-226 concentrations in excess of 5 pCi/gm above background. The soil sample results as well as the NRC and licensee conducted gamma surveys confirm that the processing site has been decontaminated to unrestricted release limits. Gamma levels of 30 to 40  $\mu\text{R}/\text{Hr}$  were found to exist in the Pinehills; however, due to the rugged topography as well as local resident's concern over destruction of the vegetation, supplemental standards were applied to this area. A previous review of this situation by the NRC staff indicated that no health and



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safety concerns existed due to the spotty nature of the windblown tailings in this area.

In the Environmental Impact Statement that served as the foundation for the licensing process at the site, several commitments were made as to the amount, type, and method of planting that would accompany the revegetation of the processing site and the disposal area. The inspector reviewed licensee records and observed in the field that the recontouring, terracing, topsoiling, revegetation, and shrub planting discussed in the license had been completed. There does exist a performance standard concerning vegetation that can only be verified after two growing seasons. The only remaining license commitment that the inspector is aware of is that the licensee will request that this vegetation performance standard be incorporated into the possession license for the disposal area and removed from the license.

For this inspection, the inspector reviewed various environmental monitoring data and radiological surveys for the buildings on the site. These data reviews indicate that the buildings which are planned to have on the site meet unrestricted release limits. Alpha surveys confirm that release limits specified in the license have not been exceeded.

Additional environmental monitoring concerning the ground water at the site was reviewed prior to and during the inspection. This data review indicates that due to the removal of the tailings which caused ground-water contamination at the site as well as the lack of ground water underlying the processing site, there is no water resource that could be a present or future concern to human health or the environment.

No violations, no deviations and no open items were identified by the inspector.

##### 5. Exit Interview

The inspector met with the licensee representatives as identified under item No. 1. The inspector informed those individuals of the inspection findings. Furthermore, the following items were discussed: (a) Source Material License SUA-816 should be modified to delete commitments relevant to the process area as well as maintain the requirement to verify the vegetation at the site, (b) a Federal Register Notice should be published informing the public of the pending licensing action, (c) TVA will, within the first quarter of 1990, submit a final completion report that summarizes the work performed at the processing site and the disposal area, as well as include a surveillance and maintenance plan for the disposal site, and (d) this report will be reviewed by the NRC as an amendment request for a possession only license for the processing area.