

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 89-001

Docket No. 040-02791

License No. SMB-256

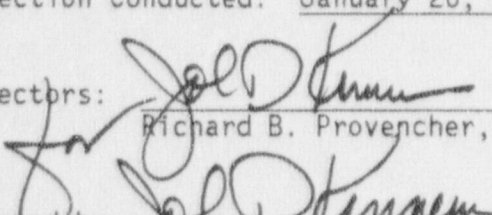
Priority 3

Category E

Licensee: Kulite Tungsten Corporation  
160 East Union Avenue  
East Rutherford, New Jersey 07073

Inspection At: 1040 Hoyt Avenue  
Ridgefield, New Jersey

Inspection Conducted: January 20, 1989

Inspectors:   
Richard B. Provencher, Health Physicist

4/14/89  
date

Approved by:   
John D. Kinneman, Chief  
Nuclear Materials Safety Section B

4/14/89  
date

Inspection Summary: Closeout Inspection on January 20, 1989. (Inspection  
No. 040-02791/89-001).

Areas Inspected: Announced, closeout inspection limited to a survey of areas of the 1040 Hoyt Avenue facility for residual contamination prior to release for unrestricted use. Eight swipes were taken and assayed for removable alpha, beta, and gamma activity. The facility was surveyed to identify fixed radioactive contamination and materials remaining.

Results: No violations were identified. No fixed or removable radioactive contamination was found. All contaminated material generated during normal operations and decontamination have been removed from the facility. The licensee's survey enclosed with their letter dated June 15, 1988, sufficiently describes the condition of the facility.

## DETAILS

### 1. Persons Contacted

- \*Ronald Kurtz, President
- \*Henry Utzinger, Plant Manager
- \*Guy Mariella, Mechanical Engineer

\*denotes those present at exit interview.

### 2. Background

The Hoyt Avenue facility is a single level building located in Ridgefield, New Jersey, which had been used by the licensee approximately twenty years ago for research and development studies involving depleted uranium and thorium (natural). The licensee indicated that only one experiment was conducted with depleted uranium in 1966 and all source material was subsequently transferred to Sikorsky Aircraft.

At the time of the close-out survey, it was observed that the interior of the Hoyt Avenue building had been rebuilt, repainted, and carpeting and ceiling panels installed. This limited the scope of the survey by the NRC inspector. Nonetheless, the inspector attempted to survey as much of the original facility and equipment as possible.

### 3. Instruments Used in the Survey

Radiation measurements were made with a Ludlum Model 44-6 thin wall Geiger-Mueller (GM) detector connected to a Ludlum Model 14C instrument (NRC 009660) calibrated to read in millirem per hour (mRem/h) for cesium-137 radiation, last calibrated October 1988. Also, a Ludlum Model 12S micro-R-meter (NRC 08581), last calibrated in July 1988 to read in microRoentgen per hour ( $\mu$ R/h), was used.

Using the Micro-R-meter, measurements of 8-10  $\mu$ R/h were observed in all areas inside and outside of the facility. The GM instrument read less than 0.02 mRem/h in all areas of the facility. These measurements corresponded to normal background radiation levels for the area.

No violations were identified.

#### 4. Survey for Removable Contamination

Eight swipes were taken in areas where the experiments were conducted. These areas included ventilation ducts, two ventilation fans on the facility roof, and I-Beam supports behind the newly installed ceiling panels. Wipes were counted at the NRC Region I Laboratory using a Tennelec Model LB5100 gas flow proportional counter. The maximum contamination level found on any wipe was  $1 \pm 1$  dpm (alpha). No evidence of alpha, beta, or gamma emitters, other than indicated above, was found on the wipes.

No violations were identified.

#### 5. Receipt and Transfer of Licensed Material

The NRC docket file for the licensee, No. 040-02791, indicated that the last record of possession of source material by the licensee was as follows:

In 1968, 39.6 kilograms (Kg) depleted uranium and 2 ounces (0.06 Kg) thorium.

The licensee indicated that they no longer possess the source material; that it was "most-likely" transferred to Sikorsky Aircraft in the late 1960's, and that no record currently exists of this transaction.

Based on discussions with the licensee, the inspector determined that the past transfer of source material by the licensee was apparently authorized by the general license described in Title 10, Code of Federal Regulations, Part 40.22.

No violations were identified.

#### 6. Exit Interview

The results of the survey were discussed with the individuals indicated in Section I of this report. The inspector indicated that work on the licensee's amendment request to release the facility for unrestricted use would begin following receipt of the swipe results from the NRC Region I laboratory.