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December 7, 1990

Certified Mail
Return Receipt Requested

Mr. Robert D. Martin
Regional Administrator
U.S. NUCLEAR REGULATORY COMMISSION
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

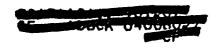
RE: Decontamination Room Sump Leak
10 CFR 20.405 Report

Dear Mr. Martin:

On November 9, 1990, Sequoyah Fuels Corporation (SFC) made a 10 CFR 20.403(b) notification to NRC regarding an apparent leak in a washdown sump in the facility Decontamination Room.

On November 8, 1990, a crack was observed by a Decon Operator in the concrete floor adjacent to the washdown sump in the Decontamination Room, which is attached to the Main Process Building. The crack was actually a separation between the lip of the stainless steel sump basin and the adjacent concrete floor. After an initial investigation by Operations personnel, no further decontamination activities were scheduled until Engineering could inspect the sump and floor. The next morning a QC Inspector verified that the crack could transmit liquid through the floor. A previous inspection the last week in September by the same inspector had found the floor and sump to be in satisfactory condition.

An emergency work order was issued to patch the crack at the floor/sump interface using a Tufco repair kit. Further decontamination activities were suspended until the repair could be completed and the floor reinspected. The report was made because decontamination activities would be shut down longer than 24 hours, and repair and investigative work threatened to exceed \$2,000.



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The enclosed report is filed in compliance with 10 CFR 20.405. Should you have any questions on this matter, please contact me at 918/489-3207.

Best Regards,

Lee R. Lacey

Vice President

Regulatory Affairs

LRL: nv

Enclosures

xc: Charles J. Haughney, NRC - NMSS Keith E. Asmussen, General Atomics

SOT

#### BEOUOYAH PUBLE CORPORATION

#### DECONTAMINATION ROOM SUMP LEAK

(10 CFR 20.405)

## 1. Estimate of each individual's exposure:

SFC health physics personnel evaluated the situation and determined that it did not contribute to any exposure to personnel above normal operating conditions.

# 2. Levels of radiation and concentrations of radioactive material involved:

The Decontamination Room sump collects washdown water when floors, walls, etc. are washed down. This water potentially contains dilute amounts of nitric acid and uranium. The floor adjacent to the sump was cored and a core sample was taken of the sand, soil, and aggregate beneath the concrete by hand auger to investigate the impact of the current leak and potential past leakage. The following results were obtained:

#### Sand under concrete slab:

Uranium (%)	Fluoride (ug/g)	Nitrate (ug/g)
0.07	137	17

#### Soil and aggregate:

Depth In Peet	Uranium ug/g	Fluoride ug/g	NO3
2.0 - 2.5	1440	708	277.7
2.5 - 3.0	420	277	336.9
3.0 - 3.5	96	81	311.6
3.5 - 4.1	24	197	230.4

### 3. The cause of exposure levels or concentrations:

Inspection showed that the stainless steel sump itself was in good condition, but there was a slow leakage of material in one area at the interface of the concrete floor and the stainless steel sump basin. It is likely that the sump had been slightly damaged by mechanical means subsequent to the September inspection.

## 4. Corrective steps taken or planned to prevent recurrence:

4.1 All loose concrete was removed from the edge of the stainless steel sump.

- 4.2 The remaining concrete was cleaned with hydrochloric acid.
- 4.3 Tufco patch material was applied around the sump and allowed to dry.
- 4.4 The completed repair passed final inspection by the QC Inspector.
- 4.5 The sump is on a surveillance program and will be periodically inspected in the future.