

Docket File 40-8768  
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 DBangart, RIV  
 PHildenbrand  
 URFO r/f  
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40-8768/PRH/85/03/13/0

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MAY 09 1985

URFO:PRH  
 Docket No. 40-8768

MEMORANDUM FOR: Docket File No. 40-8768

FROM: Paul R. Hildenbrand, Project Manager  
 Licensing Branch 1  
 Uranium Recovery Field Office, Region IV

SUBJECT: SEQUOYAH FUELS CORPORATION "O" AND "Q"-SAND ISL  
 PROJECT - OPERATIONAL CONCERNS RELAYED TO URFO STAFF  
 DURING A TELEPHONE CONVERSATION WITH A FORMER SFC  
 EMPLOYEE

URFO staff received a telephone call from a former Sequoyah Fuels Corporation (SFC) employee on March 4, 1985. This individual expressed concern about certain operational procedures that took place at the facility during the time he was employed with SFC. Major areas of concern were the NPDES discharge system and the "O"-Sand pre-operational soil sampling program. Specific comments of the former employee are presented below:

#### 1.0 NPDES Discharge System

- 1.1 Elevated Ra-226 in sediments downstream from the discharge point.
  - 1.1.1. After scraping the channel, SFC did not sample the fresh channel bottom. They installed a clean sand blanket and sampled the clean sand instead.
  - 1.1.2. In early May and June 1984, SFC conducted a dye and high chloride test to determine the pond retention time. The fluid discharged during the test was reported as effluent to the creek, but was actually pumped into the Bill Smith Mine.

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- 1.1.3. The settling ponds which were designed to remove radium from the water prior to discharge are not lined. During the 7-week shutdown period to correct a radium problem, the volume within one of the three settling ponds decreased from 2.5 million gallons to approximately 100,000 gallons. The seepage rate under the pond has been estimated by SFC to be 90 to 120 gpm. It has been postulated by the landowner and others that the seepage is migrating through an alluvial channel 1500 ft. to the north and manifesting itself as a "pond" in the middle of an alfalfa field. URFO staff have determined that the quality of the water seeping from the bottom of the pond will not significantly differ from that being discharged at the surface, since it is all the same water.
- 1.1.4. SFC was originally mixing 2000 gpm of Bill Smith Mine water with the ISL bleed stream. They are now only mixing 170 gpm with the ISL bleed stream (25-30 gpm). Therefore, the dilution factor is much less, and the potential for higher concentrations of toxic elements being sent down the creek is a reality. URFO staff have reviewed past data submitted by SFC and have not identified any trends in reported data.

## 2.0 0-Sand Pre-Operational Soil Samples

- 2.1 SFC pumped the 0-Sand wellfield wells to collect baseline data. Many of the wells have naturally high Ra and U concentrations. The discharge from these wells (approximately 500,000 gallons) was pumped onto the ground rather than into the evaporation ponds. Baseline soil samples were subsequently taken in this area, resulting in artificially high radium background concentrations in the soil (as much as 15 times higher than areas not contaminated with the well water).

### Recommended Actions

The URFO staff has reviewed these comments and determined that they do not constitute violation of any license condition or applicable regulation. However, actions of this nature may indicate insufficient management control and represent items of concern to the NRC. It is

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therefore recommended that the URFO staff verify the validity of these complaints. It is recommended that these comments be considered items of concern during the forthcoming annual site inspection.

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Approved by:

Original Signed By  
Edward F. Hawkins

Edward F. Hawkins, Chief  
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