

Docket File 40-8768
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40-8768/PRH/85/06/12/0

- 1 -

JUN 17 1985

URFO:PRH
Docket No. 40-8768

MEMORANDUM FOR: Tom Nash, Allegations Coordinator
Region IV

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

SUBJECT: FOLLOW-UP INVESTIGATION OF ALLEGATION CASE
NO. RIV-85-A-0060

During a March 4, 1985 telephone conversation, a former Sequoyah Fuels Corporation employee related to URFO staff certain operational incidents which he felt should be brought to the attention of the NRC. URFO staff reviewed the items of concern and concluded that a follow-up investigation should be performed during the routine site inspection. The routine inspection was conducted on June 3, 1985. This memorandum presents the URFO staff findings related to the allegations reported in the memo to file, dated May 9, 1985.

Allegation No. 1

"The licensee did not sample the fresh channel bottom prior to placing the clean material in the stream." The URFO investigation resulted in the following findings:

The channel was excavated from the discharge point to a point about 300 feet downstream to a depth of 9 inches. The channel was returned to as near previous condition as possible by replacing the excavated material with soil borrowed from the Bill Smith Mine site. This material was analyzed for Ra-226 prior to emplacement in the stream channel to ensure it was uncontaminated. Samples were not taken from the excavated channel. The licensee assumed that all contaminated material was contained within the top few inches of material. A review of the docket file indicates no NRC requirement for them to sample the channel bottom

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JUN 17 1985

as part of the mitigative action. However, at decommissioning, the licensee will be required to survey this area and clean up any residual contamination.

Allegation No. 2

"During the Spring of 1984, SFC performed a dye and chloride tracer test to determine the fluid retention time across the three holding ponds prior to being discharged to the creek. The fluid was reported as effluent to the creek, but was actually pumped into the Bill Smith Mine."

URFO investigators were informed by site management that the fluid was discharged to the creek. There are apparently no records available to verify where discharge may have taken place. It appears that the effects of discharging to the Bill Smith Mine are negligible.

Allegation No. 3

"Because the settling ponds are not lined, water is seeping into a dry alluvial channel and resurfacing about 1500 feet north in an alfalfa field."

Site management informed URFO investigators that seepage rates from the ponds are unknown, but are likely to be slight. URFO investigators were unable to locate the "pond" referred to in the allegation. As discussed in the memo to the file, dated May 9, 1985, the quality of any water seeping out of the pond should not be any worse than what is already being discharged to the surface. Accordingly, there is no apparent violation.

Allegation No. 4

"SFC was originally blending 2000 gpm of Bill Smith Mine water with a 30 gpm ISL bleed stream. They are now only blending 170 gpm of mine water with the same 30 gpm bleed stream. The dilution factor, therefore, is greatly reduced, increasing the potential for excessive concentrations of toxic elements (i.e., arsenic, selenium, etc.) to be released to the environment."

Effluent releases from the Bill Smith water treatment facility remain within the limits of the NPDES discharge permit. However, this permit does not require monitoring of such toxic parameters as arsenic and selenium. URFO investigators collected a water sample from the treatment

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JUN 17 1985

facility discharge. This sample has been submitted for analysis of metals, including mercury, arsenic, selenium and uranium, and major anions. Should the analytical results indicate excessive concentrations of toxic parameters, the Wyoming Department of Environmental Quality will be notified of our findings.

Allegation No. 5

"Many of the "O"-Sand wells have naturally high radium concentrations. During well development and baseline data collection, these wells were pumped directly onto the ground (approximately 500,000 gallons total). Baseline soil samples were taken subsequent to this activity, resulting in artificially elevated baseline concentrations of radium in the soil (as much as 15 times higher than areas not contaminated with well water)."

URFO investigators noted gamma readings within the "O"-Sand wellfield area ranging from 21 to 30 mR/hr. Background readings ranged from 15 to 18 mR/hr. A total of four soil samples were collected by the URFO investigators. One was taken upgradient from the wellfield as a control, and three were taken within the wellfield area where gamma readings indicated a potential problem. These samples will be analyzed for Radium-226. Should results prove the allegation correct, the licensee will be required to revise their baseline soil data accordingly and decontaminate the affected areas during reclamation and decommissioning.

A copy of the analytical data will be forwarded to you with a memorandum of final recommendations as soon as it becomes available. Should you have further questions concerning any of the above, please do not hesitate to contact me at FTS 776-2812.

151

Paul R. Hildenbrand, Project Manager
Licensing Branch 1
Uranium Recovery Field Office
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Original Signed By
Edward F. Hawkins

Approved by:

Edward F. Hawkins, Chief
Licensing Branch 1
Uranium Recovery Field Office, Region IV

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