

SEP 03 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: CLOSEOUT OF ALLEGATION CASE  
NO. RIV-85-A-0060

As discussed in our memo to you dated June 17, 1985, all items of concern had been closed out except Allegation numbers 4 and 5. A final determination of these two items was pending receipt of analytical data from Oak Ridge National Laboratory. URFO has now received and reviewed this data in relation to the above referenced allegations. This memorandum presents URFO's conclusions and closure recommendations for these two items of concern.

#### 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."

#### Conclusions on Allegation No. 4

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 facility discharge and had it analyzed for metals and uranium. All

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| OFC :          | : | : | : | : | : | : |
| NAME :         | : | : | : | : | : | : |
| DATE :85/09/03 | : | : | : | : | : | : |

reported parameters were well within statutory limits except for selenium which analyzed at a concentration of 0.06 mg/l. The Wyoming domestic water quality standard for this parameter is 0.01 mg/l.

Since the surface discharge permit is administered by the State of Wyoming, they were notified of our findings during an August 28, 1985 meeting so that they may take action as they deem appropriate under their statutes.

#### 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)."

#### Conclusions on Allegation No. 5

URFO investigators noted gamma readings within the "O"-Sand wellfield area ranging from 21 to 30  $\mu$ R/hr. Background readings ranged from 15 to 18  $\mu$ R/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 were analyzed for Radium-226. Results indicate Ra-226 concentrations ranging from 0.81 pCi/gm (background) to 12 pCi/gm within the wellfield area. Accordingly, the licensee will be required to re-evaluate their baseline soil radium data, taking into consideration this apparent contamination. This surface contamination will also be considered when reviewing the licensee's decommissioning plan to ensure that all contaminated soil is removed prior to license termination.

#### Recommendations

This memorandum together with the aforementioned June 17, 1985 memo (copy attached), addresses all the allegations. Based upon the above

|                 |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|
| OFC :           | : | : | : | : | : | : |
| NAME :          | : | : | : | : | : | : |
| DATE : 85/09/01 | : | : | : | : | : | : |

SEP 03 1985

discussions, it is recommended that this case be closed out. Should you have any questions, please feel free to contact me at FTS 776-2812.

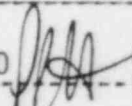
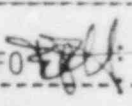
51

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

Original Signed By  
Approved by: Edward F. Hawkins

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

Attachment: As stated

|      |                |   |            |   |   |   |   |   |
|------|----------------|---|------------|---|---|---|---|---|
| OFC  | : URFO         | :  | : URFO     | :  | : | : | : | : |
| NAME | : PHildenbrand | :   | : EHawkins | :   | : | : | : | : |
| DATE | : 85/09/03     | : TV  | : 9/3/85   | :   | : | : | : | : |