



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
URANIUM RECOVERY FIELD OFFICE  
BOX 25325  
DENVER, COLORADO 80225

DEC 19 1989

URFO:GRK  
Docket No. 40-8904  
04008904320E

BP America  
ATTN: Ralph A. DeLeonardis  
200 Public Square, 7-4406-B  
Cleveland, Ohio 44114-2375

Gentlemen:

Our office is in receipt of the Intera Technologies, Inc. (INTERA) letter dated November 30, 1989, in response to our November 2, 1989, correspondence. There are several issues that these letters as well as your June 21, 1989, "Verification Survey Report for Reclamation of Windblown Tailings at the L-Bar Uranium Site," bring to light. Specifically, these issues concern disposal of stockpiled ore, gamma readings over the disposal cell and adjacent lands, and soil radium-226 analysis. Each of these issues will be discussed in detail below.

As has been discussed with INTERA, ore is not always considered to be an unregulated material. As you may be aware, the NRC routinely requires ore stored onsite or on lands adjacent to an operating mill to be controlled as part of the licensee's overall program to reduce radioactive releases to the environment. In reclaiming the mill, any remaining stockpiled ore is to be disposed of either by depositing it in the tailings pile or transferring it to a licensed uranium facility. Simply recontouring the ore onsite is not an acceptable reclamation alternative. The information which you have submitted appears to indicate that all the requirements of 10 CFR 40.42 have not been met. Suitable arrangements will need to be made to ensure that the ore stockpiles undergo appropriate reclamation.

The gamma survey that was submitted as a portion of your June 21, 1989, report as well as the gamma readings taken during our inspection, indicate that numerous readings above background exist at the site. We would remind you that 10 CFR 40, Appendix A, Criterion 6, states that "Direct gamma exposure from the tailings or wastes should be reduced to background levels." Your data indicates that background ranges from 15 to 25  $\mu$ R/hr; consequently, readings in your reclaimed areas as well as adjacent areas should have similar readings. Any areas found to have elevated gamma levels will need to be cleaned to background levels.

The soil radium-226 and uranium analyses that were previously transmitted to you indicate that several of the samples appear to have uranium depleted

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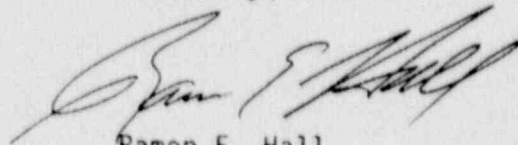
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relative to radium-226. The 20  $\mu$ R/hr contour that is discussed in your most recent correspondence is simply a guide established to aid in your cleanup activities. Confirmation of cleanup, however, must be based on soil samples representing the entire area that may have been contaminated by windblown tailings. Accordingly, our inspectors will survey and take confirmation samples on lands near and adjacent to, as well as distant from the reclaimed site to determine if suitable cleanup has taken place. It appears that the L-Bar site is in need of additional work. Although we have no reason to doubt our laboratory, we are interested in observing the results of your sample splits.

In your correspondence, you questioned the soil sampling techniques employed during the last inspection. We have no way at this time of confirming your claims that samples were not taken properly. However, it is very unlikely that the deviations in sampling techniques that you described could entirely account for our laboratory results that are significantly above background. We anticipate meeting with you to review the results of your resampling. We would suggest that we schedule a meeting to discuss the remaining issues for early February, 1990.

In summary, it appears that the L-Bar site is in need of disposing of or reclaiming the stockpiled ore, reducing gamma radiation to background levels, and performing gamma surveys to verify that background gamma radiation exists over the entire disposal cell, as well as adjacent lands and soil. Similarly, additional soil samples will be reviewed to confirm that radium-226 levels do not exceed regulatory limits.

Sincerely,



Ramon E. Hall  
Director

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