

04008102490E

40-8102

EXXON COAL and MINERALS COMPANY

See Report / MAPS

POST OFFICE BOX 1314 • HOUSTON, TEXAS 77251-1314

ENVIRONMENTAL AFFAIRS & SAFETY

JAMES D. PATTON
Manager

May 2, 1991

Re: Docket No 40-8102
License No. SUA-1139

United States Nuclear Regulatory Commission
Region IV
Uranium Recovery Field Office
P.O. Box 26326
Denver, CO 80225

Attention Mr. Ramon E. Hall, Director

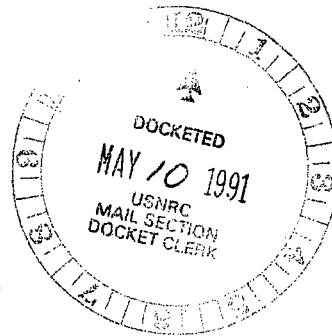
Gentlemen:

Exxon hereby applies for a license amendment to reduce the size of the restricted area around the Highland tailings basin. The attached Figure 1, "Highland Reclamation Project Restricted Area Map" depicts the basin, the current restricted and posted areas, and the proposed restricted area.

The proposed restricted area is fenced on the north and east. The south and west boundaries are on Exxon property and are not currently fenced. The entire perimeter of the proposed restricted area will be posted on approximately 500 foot centers with signs noting the presence of radioactive material. Such signs currently exist along the entire posted boundary. None of the existing signs will be removed until after this amendment has been approved and the signs are in place along the proposed restricted area boundary.

Four groundwater compliance wells are within the proposed restricted area. Based on groundwater sampling in these wells, natural uranium, thorium-230, radium-226, and radium-228 concentrations are within the 10 CFR Part 20 Appendix B Table II limits for unrestricted areas. This is true for all of Exxon's Highland monitoring wells, both inside and outside the proposed restricted area. You may wish to refer to our January 30, 1991 report on tailings seepage mitigation progress for more detailed information and data relative to groundwater quality in the area.

Our proposed reduction in the restricted area is supported by the findings in the enclosed report, attached as the Appendix to this letter. The report deals with comprehensive and detailed radioactive material surveys around the tailings basin. A preliminary survey was performed around the time that reclamation of the tailings basin was begun in order to determine how far from



91 MAY 10 AIO:04

URFO
RECEIVED



May 2, 1991

the basin significant radiation levels might extend. The results of that survey are included in the Appendix (Attachment I to the Appendix).

While reclamation of the basin was being carried out, a more detailed survey was performed, including gamma radiation measurements and soil sampling and analyses. Gamma readings of over sixteen thousand 100 m² areas were taken. Over three thousand soil samples were analyzed for Ra-226. The detailed survey extended beyond the limits of the preliminary survey in all directions and far enough from the basin to provide assurance that no significant Ra-226 contamination due to Highland by-product materials is likely beyond the limits of the detailed survey.

The findings reported in the Appendix to this letter demonstrate that the entire area around the tailings basin meets the 5 pCi/g of Ra-226 (over background) described in 10 CFR Part 40, Appendix A, Criterion 6. Specifically, no soils in the upper 15 cm around the basin exceed 5 pCi Ra-226/g above the background values of .7 pCi/g, when averaged over 100 m². In most areas, the actual measurements revealed values well below this limit.

Please call Mr. D. M. Range of my staff at (307) 265-7600 if you have any questions on this amendment request or the enclosures.

Sincerely,



attachment

copies w/attach: D. M. Range
J. F. Moore
copy w/o attach: J. L. Fernald

rstrct.doc