

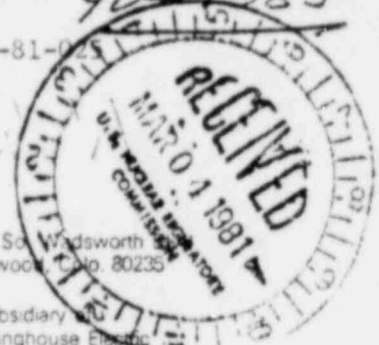
Wyoming Mineral Corporation



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40-8585

LRP-81-0



3900 So. Wadsworth  
Lakewood, Colo. 80235

A Subsidiary  
Westinghouse Electric  
Corporation

February 3, 1981

U.S. Nuclear Regulatory Commission  
Office of Nuclear Material Safety & Safeguards  
Division of Waste Management  
Mail Stop 483-SS  
Washington, DC 20555



Attention: Mr. John Linehan, Uranium Recovery Licensing Branch  
Subject: Application to Amend License SUA-1315, Docket 40-8585

Gentlemen:

The Wyoming Mineral Corporation (WMC) hereby requests an amendment to License SUA-1315, Docket 40-8585, to revise License Condition No. 29. Specifically, WMC requests that the Condition be revised to read:

"If analysis of degraded resins shows concentrations below  $5 \times 10^{-6}$   $\mu\text{Ci}/\text{gram}$  of resin for  $^{226}\text{Ra}$ , or  $3 \times 10^{-5}$   $\mu\text{Ci}/\text{gram}$  of resin for  $^{230}\text{Th}$ , the degraded resins may be disposed of as nonradioactive soil. If the concentrations cannot be controlled below these values, the resins will be disposed of as byproduct material at a conventional mill's tailings disposal site or at a licensed disposal site. If nitric acid is used to strip the uranium from the degraded resin, as described in the June 29, 1977 supplement in response to question 5(d), the resin shall be rinsed appropriately to eliminate any potential fire risk prior to any storage, shipment or discard."

The values for  $^{226}\text{Ra}$  and  $^{230}\text{Th}$  imposed by the NRC in Condition 29 appear to have been based originally on the limits for soluble nuclides in water released to uncontrolled areas as presented in 10CFR Part 20, Appendix B, Table II, Column 2. Inasmuch as the radionuclides present in the resin will be tightly sorbed onto the resin beads and/or particles, the selection of the soluble form to serve as a basis for the license limits seems unwarranted. The actual macrophysical form of the material is solid particulates. Therefore, WMC has proposed to use the limit from Table II, Column 2 for insoluble  $^{230}\text{Th}$ . This is an increase of a factor of about 15.

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February 3, 1981

For  $^{226}\text{Ra}$ , the insoluble limit in Table II, Column 2 of 10CFR20 is increased over the soluble one by a factor of 1000. Rather than request such a large percentage increase, WMC has chosen the figure of  $5 \times 10^{-6} \mu\text{Ci/g}$ , which is only slightly more than two orders of magnitude larger. This value provides close comparability with values proposed by the EPA for 40CFR 192.

Inasmuch as implementation of this application merely involves approving alternate choices from among the limits contained in Part 20, WMC has classified the request as an administrative change and we enclose a check in the amount of \$40.00 in payment of the license fee.

In response to a question by Mr. Heyer of your staff, WMC provides the following information concerning material currently held for disposal.

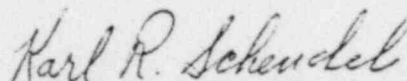
The resin currently held for disposal may be described as a macroporous anion exchange resin with a trade designation of Dow MSAL or equivalent. The material is mechanically damaged beads and fines. Where elution has been performed, the operation was carried out using an approximately three normal sulphuric acid solution.

Analysis of samples of the material have produced a nominal radium-226 concentration of  $1.6 \times 10^{-6} \mu\text{Ci/gram}$  of resin and a nominal thorium-230 concentration of  $2.0 \times 10^{-6} \mu\text{Ci/gram}$  of resin.

This information confirms my telephone conversation with Mr. Heyer on January 23, 1981.

If there are any questions regarding this application, please get in touch with me at the above address or telephone me at (303) 988-8530, Extension 226.

Very truly yours,



K. R. Schendel, Manager  
License Administration

KRS/pn