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UNITED NUCLEAR CORPORATION, CHEMICALS DIVISION - U(93.5)O₂ -
ZrO₂ BLENDING - DOCKET NO. 70-36, MAY 20, 1964

During the telecon between Mr. L. J. Swallow of UNC and me, May 20, 1964, Swallow asked if 27 w/o U(93.5)O₂-73 w/o ZrO₂ mixture could be handled and processed as 27 w/o U-235 enriched uranium oxide when mixed with hydrogenous materials.

I informed Swallow that I know of no criticality data that would allow him to do this. Zirconium is a reactor material and, therefore, must have a low neutron capture cross section. I suggested he compare the nuclear properties of U-238, which has a very high resonance capture cross section, to that of zirconium.

cc: D. A. Nussbaumer, ML

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