

Erratum

ANSI/ANS-8.1-2014 (R2023)

Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors

A typographical error was identified in footnote 5, on page 5. The reference to the sphere size in the last sentence should be “1/8-inch” instead of “108-inch.” The corrected footnote is below.

- 5) In the homogeneous mixtures to which calculations of these subcritical limits were normalized, the average particle size of dry UO_3 was 60 μm [V. I. Neeley and H. E. Handler, “Measurement of Multiplication Constant for Slightly Enriched Homogeneous UO_3 -Water Mixtures and Minimum Enrichment for Criticality,” HW-70310, Hanford Atomic Products Operations (Aug. 1961)]. It seems likely that the average particle size of the dihydrate of $\text{UO}_2(\text{NO}_3)_2$ was $\sim 100 \mu\text{m}$ [V. I. Neeley, J. A. Berberet, and R. H. Masterson, “ k_∞ of Three Weight Per Cent ^{235}U Enriched UO_3 and $\text{UO}_2(\text{NO}_3)_2$ Hydrogenous Systems,” HW-66882, Hanford Atomic Products Operations (Sep. 1961)]. Various H/U ratios in the nitrate mixtures were achieved with 1/8-in. spheres of polyethylene [S. R. Bierman and G. M. Hess, “Minimum Critical ^{235}U Enrichment of Homogeneous Uranyl Nitrate,” ORNL CDC-5, Oak Ridge Criticality Data Center (June 1968)].