Donald A. Mussbaumer, Chief Source & Special Muclear Paterials Branch, ML July 30, 1964

Charles D. Luke, Chief Criticality Branch, ML

UNITED NUCLEAR CORPORATION, HEMATITE, MISSOURI - INCREASED STORAGE CAPACITY OF BUILDING 235 - DOCKET NO. 70-36, JULY 17, 1964

SYMBOL: ML:RHO

In order to continue our review of the subject license amendment application, we recommend the following be sent to the applicant:

- "1. We have been unable to confirm the nuclear safety of the storage of uranium metal described in Section 501. The solid angle criterion should not be used with metal units containing mere than 2 kg U-235. From Figure 22, TID-7016, Rev. I, we can justify 40 units with a center-to-center spacing of 18 inches. This is much less than the number of units you are proposing for each of the three isolated storage areas. Therefore, we request you revise your nuclear safety analysis.
- \*2. Please demonstrate that the storage areas in Section 501 are adequately covered by the monitor alarm system. This analysis should take into consideration the gamma attenuation due to the two rows of 12 inch solid concrete blocks. Also, what effect will this additional concrete have on adequate monitor alarm coverage of your proposed autdoor storage areas?"

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