REGULATORY FILE CY

70-637

UNION CARBIDE

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Director of Licensing
United States Atomic Energy Commission
Division of Materials Licensing
Washington, D.C. 20545

Gentlemen;

Subject: Request for ammendment
SNM License #639

Union Carbide letter of June 13, 1973 provided supplementary information regarding criticality control in areas where SNM is stored at the Union Carbide Sterling Forest Laboratory.

Specifically, section (B).(a) of the enclosure to the above referenced letter states that the uranium is stored in solid.form. A recent ammendment to SNM #639 (MPP #1) provides for storage of SNM as $UO_2(NO_3)_2$ in an aqueous solution. This form of material facilitates measurements for process control and material accountability. Therefore, it is requested that section (B).(a), paragraph 1 be ammended to read as follows:

(a) Criticality control in storage areas

Uranium is stored in storage compartments in the upper level of the hot laboratory (Fig. 1A). SNM in liquid form is doubly contained. Storage compartments are of fireproff construction. A minimum separation distance of three feet is maintained between compartments by fastening them to prevent inadvertent movement. All storage compartments are locked and access keys are in the custody of the SNM custodian for the area. The primary criticality control is implemented by limiting the quantity of uranium in a single compartment to 650 grams. This limit allows a safe margin below the single parameter limit of 760 grams U^{235} in uniform aqueous solutions specified in the American National Standard (ANSI) N16.1 - 1969. This 650 gram limit allows a safe margin for any possible inadvertent measurement error. Since the quantity of SNM purchased on an occasion is limited to 650 grams and each storage compartment is only large enough to contain a single shipping container or storage container, it is not credible that double batching would occur in storage.

February 10, 1975

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It is considered that the granting of this ammendment will not result in an unsafe condition.

Very truly yours,

James McGovern
Manager
Radiochemical Production

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