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GENERAL ELECTRIC

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NUCLEAR ENERGY
PRODUCTS DIVISION

WILMINGTON MANUFACTURING
DEPARTMENT

January 17, 1980

Director
Office of Nuclear Materials Safety & Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. W. T. Crow, Section Leader
Uranium Process Licensing Section
M/S 396-SS

Dear Sir:

Reference: NRC License SNM-1097, Docket #70-1113

Subject: APPLICATION AMENDMENT N-5,
OBTAIN & USE NBS STANDARD REFERENCE MATERIAL
(1-GRAM U₃O₈)

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| Applicant | |
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U.S. NUCLEAR REGULATORY COMMISSION
URANIUM PROCESS LICENSING SECTION

With reference to activities authorized by SNM-1097 at the GE fuel fabrication facility in Wilmington, N. C., General Electric Company hereby requests authorization to obtain and use up to one gram of U₃O₈ containing uranium enriched up to 93% in U-235, in the form of NBS standard reference material.

This U₃O₈ standard material will be pelletized into two 500-milligram wafers. The wafers will be sealed into a stainless steel bar with an epoxy resin. This arrangement will be used for calibration of a system presently under development to monitor liquid waste from our Uranium Purification System.

The steel bar containing the U₃O₈ reference material will be locked to the external surface of the monitor shield.

The placement of the standard reference material external to all piping in the locking of the shield holder in place, insures that the standard material cannot be accidentally introduced into the manufacturing process. Also, the small quantity of material has no effect on criticality considerations since it will be encased in a stainless steel pipe of more than one inch in length and physically separated from the process waste liquid of the Uranium Purification System both by the stainless steel pipe and by three inches of lead shielding.

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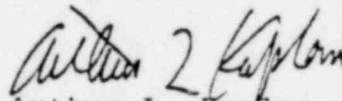
Preparation of the oxide standard for use in the monitoring system will be done in the Process Technology Laboratory, an area which is completely separated from the manufacturing facility.

Pursuant to 10 CFR 170, enclosed is a check for \$1,400 to cover the costs of processing this amendment request.

General Electric Company personnel will be pleased to discuss this matter further with you and your staff, as you may deem necessary.

Very truly yours,

GENERAL ELECTRIC COMPANY



Arthur L. Kaplan, Manager
Licensing & Compliance Audits
M/C J26

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Attachment