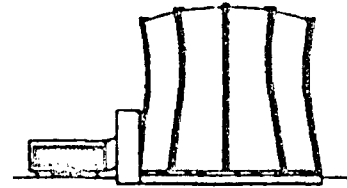


TEXAS ENGINEERING EXPERIMENT STATION

TEXAS A&M UNIVERSITY

3575 TAMU
COLLEGE STATION, TEXAS 77843-3575



NUCLEAR SCIENCE CENTER
979/845-7551
FAX 979/862-2667

June 13, 2006

2006-0041

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Application for Amendment to License R-83 Docket Number 50-128
to Increase the Possession Limits for Uranium-235

Regarding the above mentioned license, the Texas Engineering Experiment Station, Texas A&M University, Nuclear Science Center (NSC) is currently licensed to "receive, possess and use up to 17.0 kilograms of contained uranium-235 (U-235) in connection with operation of the reactor." Currently the NSC is working with the U.S. Department of Energy (DOE), DOE contractors and the Nuclear Regulatory Commission (NRC) to convert the NSC TRIGA research reactor from Highly Enriched Uranium (HEU) fuel to Low Enriched Uranium (LEU) fuel in support of non-proliferation policies.

Due to this planned reactor fuel conversion, the Nuclear Science Center will be making two shipments of spent nuclear fuel and receiving fresh fuel to complete the conversion evolution. The first shipment's purpose is to remove an old core (>20 years) that is being stored in the NSC pool. This allows for operating room in the reactor pool to receive the fresh fuel and stage it for the conversion process. The second shipment's purpose is to remove the existing operating HEU core and any other spent fuel elements that aren't shipped with the first shipment. In order to accomplish this work and avoid shutting down the NSC reactor for a period of months (ninety days minimum), the Nuclear Science Center must increase its possession limits of U-235. The NSC reactor is one of the most utilized RTRs in the United States and its shutdown would dramatically affect Texas A&M University students, academic researchers and our commercial users. Furthermore, the limit increase allows the NSC to receive the new fuel, while still maintaining possession of the existing HEU core until it can be shipped to a DOE facility for storage. (Reference attached letter from DOE, dated 4-13-06) In order to avoid the prolonged reactor shutdown and accomplish the conversion in support of non-proliferation goals, a period will exist in which the Nuclear Science Center will need to possess a quantity of U-235 in excess of the current licensed maximum of 17.0 kilograms.

A020

The following table provides the current and anticipated on-site gram inventory of U-235 throughout the conversion evolution:

Transaction Timeline	Transaction, g U-235	On-Site Inventory, g U-235
Current	---	11,353
First Fuel Shipment	-2,257	9,096
Fuel Receipt	+14,633	23,729
Second Fuel Shipment	-9,096	14,633

To facilitate this important conversion, the Texas A&M University Nuclear Science Center requests a temporary amendment to the Facility Operating License No. R-83, Amendment No. 14. Section B. (2) allowing the possession limits to be increased from 17 kilograms to 27 kilograms. A limit of 27 kilograms is proposed to cover unforeseen problems that may arise which would effect the first shipment and the total mass of U-235 in the NSC inventory. Once the second shipment is completed then the NSC proposes that the possession limit be lowered to the current license limit of 17 kilograms of U-235.

If you have any questions, please contact J. A. Remlinger, Associate Director, at 979-845-7551.

Sincerely,

 Warren D. Rege, Associate Dir

Warren D. Rege, Director NSC

TAMU Nuclear Science Center

xc: Marvin Mendonca, NRC Project Manager
2.11/central file



Department of Energy

Idaho Operations Office
1955 Fremont Avenue
Idaho Falls, ID 83415

April 13, 2006

Dr. Daniel Reece
Nuclear Science Center
Texas A&M University
129 Zachary Engineering Center
3133 TAMU
College Station, TX 77843-3133

SUBJECT: Nuclear Material Inventory Limit Increase (R&D-NE-30/50-06-008)

Dear Dr. Reece:

As you are aware, the U. S. Department of Energy (DOE) has been working with you and your staff, along with DOE contractor staff and the Nuclear Regulatory Commission (NRC), to convert your university's TRIGA research reactor from High Enriched Uranium fuel to Low Enriched Uranium fuel in support of DOE and U.S. non-proliferation policies.

In support of this conversion, the project schedule includes shipping your current inventory of spent fuel to a DOE storage facility, shipping a fresh fuel core to you to replace the fuel currently in the reactor, and ultimately shipping that fuel off site as well. However, in order to support the timing of this effort as planned, you will need to request an increase in your nuclear material inventory limit from the NRC to accommodate the fuel inventory that will be at your facility during this staging process. This increase will only be necessary until the second spent fuel shipment occurs from your facility, scheduled to occur later this year.

Please contact Jim Wade at (208) 526-6876 with any questions. The support we have received from the Texas A&M University staff has been exemplary, and we look forward to continuing our joint efforts to achieve this important objective.

A handwritten signature in black ink, appearing to read "Raymond V. Furstenau".

Raymond V. Furstenau, Acting Assistant Manager
Research and Development