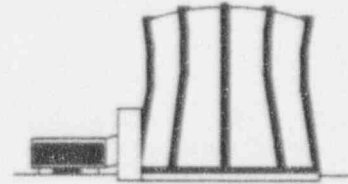


TEXAS ENGINEERING EXPERIMENT STATION

TEXAS A&M UNIVERSITY
COLLEGE STATION, TEXAS 77843-3575



NUCLEAR SCIENCE CENTER
409/845-7551

April 13, 1993

Attn: Mr. Theodore S. Michaels,
Senior Project Manager

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Projects III, IV,
V and Special Projects.
Non-Power Reactor, Decommissioning, and
Environmental Directorate
Washington, DC 20555

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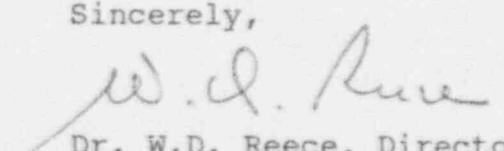
Dear Mr. Michaels,

SUBJECT: AMENDMENT NO. 13 OF FACILITY OPERATING LICENSE NO. R-83
(Docket No. 50-128).

Enclosed please find a copy of our proposed amendment to the Texas A&M University System/Texas Engineering Experiment Station, Nuclear Science Center license. The proposed amendment is designed to allow us greater flexibility regarding the possession of radioactive materials for supporting our research and development functions. The proposed amendment will also assist in the clarification and definition of the two programs currently licensed for the University System. These programs are the NRC-licensed research reactor (at the Nuclear Science Center), and the State of Texas-licensed byproduct materials program (at the Office of Radiological Safety).

If you have any questions regarding this proposed amendment, please contact me or Mr. Bruce Carlisle at (409) 845-7551.

Sincerely,


Dr. W.D. Reece, Director
Nuclear Science Center
Texas Engineering Experiment Station
Texas A&M University System

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RESEARCH AND DEVELOPMENT FOR MANKIND

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Justification for Requested Amendment

Under the current licensing structure the Nuclear Science Center has to differentiate between radioactive material held on the NRC license (R-83) and the State of Texas license. Difficulty exists identifying and classifying material used at the NSC facilities. Though many materials clearly support reactor operations, others are used for both reactor operations, research and commercial activity. Assigning radioactive materials to a specific license based on usage has created an unmanageable system. We believe that a broadening of the NRC license to allow for the possession of radioactive materials generated by the operation of our reactor, and materials determined necessary to operate all our programs, will eliminate the need for delineation between State and Federal material. A meeting between Region IV representatives and the State of Texas was held on September 21, 1992, to discuss this problem an agreement was reached that this broadening of the NRC license would be an appropriate action to resolve the concerns.

The amendment that we have submitted is very similar to that granted to commercial nuclear power plants which allows them to operate their reactor support programs. Like commercial nuclear power plants, we have a dedicated staff of professionals who can ensure that the materials are handled safely and correctly. This includes a Reactor Safety Board which conducts routine oversight of NSC programs and performs regular audits of NSC administrative controls. This single license will simplify radioactive material tracking and lessen the chance for mis-tracking of material because of dual licenses.

The State of Texas licensed material currently used at the Nuclear Science Center (NSC) primarily consists of those materials generated by faculty and staff Texas A&M, and the radioactive sources used to calibrate the various instruments and detectors. The NSC has a material control system in place to track materials, both radioactive and hazardous and/or sensitive in nature. These administrative systems track materials from cradle to grave providing detailed records of source, use and final disposition. These systems and dedicated staff also provide for the physical security of the material while it is within the NSC.

All facilities within the NSC site fence are under the management of the NSC Director and his staff. By establishing a single licensing criteria at the site boundary, verification of compliance is easily established when the material is received; and responsibility is maintained until the material is shipped. Intra-site license transfers will not be required.

- A. This license applies to the TRIGA-type nuclear research reactor owned by the Texas Engineering Experiment Station/Texas A&M University System (the licensee), located on the campus of the Texas A&M University at College Station, Texas and described in the application for license renewal.
- B. Subject to the conditions and requirements incorporated herein, the Commission, hereby, licenses the Texas Engineering Experiment Station/Texas A&M University System:
- (1) Pursuant to Section 104C of the Act and 10 CFR, Chapter I, Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, use and operate the reactor in accordance with the procedures and limitations described in the application and the license.
 - (2) Pursuant to the Act and 10 CFR, Chapter I, Part 70, "Domestic Licensing of Special Nuclear Material" to receive, possess and use up to 17.0 kilograms of contained uranium-235 in connection with operation of the reactor.
 - (3) Pursuant to the Act and 10 CFR, Chapter I, Part 70, "Domestic Licensing of Special Nuclear Material" to receive, possess and use up to 20 grams each of the following isotopes in the form of detectors, fission plates, foils and solutions for support of operations of the reactor and associated facilities.

Uranium-233, Plutonium-236, Plutonium-238,
Plutonium-239, Plutonium-240, Plutonium-241,
Plutonium-242 and Uranium-235.
 - (4) Pursuant to the Act and 10 CFR, Chapter I, Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," to receive, possess, and use in connection with the operation of the reactor a twenty (20) curie encapsulated plutonium-beryllium neutron source and a three (3) curie encapsulated americium-beryllium source and to possess but not separate such byproduct material as may be produced by operation of the reactor; and,
 - (5) Pursuant to the Act and 10 CFR, Chapter I, Part 40 "Domestic Licensing of Source Material," to receive, possess and use not more than fifteen (15) pounds of source material at any time for research, development, educational, commercial or operational purposes.

- (6) Pursuant to the Act and 10 CFR, Chapter I, Parts 30, and 40, to receive, possess, and use in amounts as required, any byproduct, or source material without restriction to chemical or physical form, for analysis or instrument calibration associated with operation of the reactor and associated facilities.
- (7) The Texas Engineering Experiment Station/Texas A&M University System will maintain all byproduct, source, and special nuclear materials within the site boundary or the gamma irradiation facility until transfer to an appropriate material license for shipment.

C. This license shall be deemed to contain, and be subject to, the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission, now, or conditions specified or incorporated below.

(1) Maximum Power Level

The Texas Engineering Experiment Station/Texas A&M University System is authorized to operate the reactor at a steady state power levels up to a maximum of 1000 kilowatts (thermal) and to pulse the reactor in accordance with the limitations in the Technical Specifications.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment 12, are hereby incorporated in their entirety in the license. The Texas Engineering Experiment Station/Texas A&M University System shall operate the facility in accordance with the Technical Specifications.

(3) Physical Security Plan

The licensee shall maintain and fully implement all provisions of the Commission-approved physical security plan, including amendments and changes made pursuant to 10 CFR 50.54(p). The approved plan consists of documents withheld from public disclosure pursuant to 10 CFR 73.21, entitled "Texas A&M University Nuclear Science Center Physical Security Plan, Revision 1," dated June 1979, as revised by letters dated January 15, 1980 and September 18, 1980.