



DEPARTMENT OF MECHANICAL ENGINEERING
THE UNIVERSITY OF TEXAS AT AUSTIN

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October 19, 1990

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Docket 50-192

Dear Sir:

Pursuant to 10CFR 50.4(b)(2)(i), The University of Texas at Austin requests a possession only license. As per telephone conversation with NRC staff (Mr. Al Adams), the enclosed material is submitted to change the R-92 docket 50-192 license to reactor possession only. A renewal period of 2 years to February 12, 1993 is requested. Tables 1 through 4 list the license materials. The requested amounts have been adjusted to account for the return of materials on loan and the intended acquisition of similar materials.

Sincerely,

Thomas L. Bauer
Assistant Director, NETL

APPROVED:

Bernard W. Wehring, Director
Nuclear Engineering Teaching Laboratory

TLB:ekr

attachments: Amendment proposal for license R-92
Technical specifications 6/90, docket 50-192

cc: G. J. Fonken
J. R. Howell
H. Marcus
H. H. Woodson
Region IV, NRC

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**AMENDMENT PROPOSAL
DOCKET 50-192**

The following proposal documents the amendment request for changes to the docket 50-192 operating license to possession only.

Facility Operating License No. R-92 is hereby amended in its entirety to read as follows:

- A. This license applies to the TRIGA Mark I pool-type nuclear reactor that is owned by the University of Texas and located on the main campus, Taylor Hall, at Austin, Texas, and described in the licensee's application for license renewal dated January 3, 1980 as supplemented.
- B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the University of Texas:
 - 1. Pursuant to Section 104c of the Act and 10 CFR, Chapter 1, Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, the reactor as a utilization facility at the designated location in Austin, Texas in accordance with the procedures and limitations described in the application and this license;
 - 2. Pursuant to the Act and 10 CFR, Chapter 1, Part 70, "Domestic Licensing of Special Nuclear Material," to possess and use, including transfer, up to 5.620 kilograms of contained uranium-235 for use in connection with operation of the reactor;
 - 3. Pursuant to the Act and 10 CFR, Chapter 1, Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," to receive, possess and use a 6-curie sealed polonium-beryllium neutron source and a 2-curie sealed americium-beryllium neutron source, either of which may be used for reactor startup, and to use in the reactor 1200 micrograms of californium 252 for experimental purposes; and to possess and transfer, but not to separate, such byproduct material as may be produced by operation of the reactor.
 - 4. Pursuant to the Act and 10 CFR, Chapter 1, Part 70, "Domestic Licensing of Special Nuclear Material," to receive, possess, and use up to 10 milligrams of uranium 233, 50 milligrams of uranium 235, 10 milligrams of plutonium 240, 10 milligrams of plutonium 241, and 10 milligrams of plutonium 239 in the form of foils, 1 gram of plutonium 239 in the form of reference material, 10 grams of uranium 235 in the form of reference materials, and 150 grams of plutonium 239 contained in sealed stainless pins, all for experimental purposes.
 - 5. Pursuant to the Act and 10 CFR, Chapter 1, part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," to possess in the reactor room and install and use in the reactor pool a 10 kilocurie cobalt-60 irradiator as described in application for amendment dated January 23, 1968, as supplemented April 29, 1968.

6. Pursuant to the Act and 10 CFR, Chapter I, Part 40, "Domestic Licensing of Source Material," to possess and use up to 8 milligrams of uranium-236 and 150 grams of uranium-238 as foils for experimental purposes.
- C. This license shall be deemed to contain and is subject to the conditions specified in parts 20, 30, 50, 51, 55, 70 and 73 of 10 CFR, Chapter I, to all applicable provisions of the Act, and to the rules, regulations and orders of the Commission now or hereafter in effect, and to the additional conditions specified below:
1. Maximum Power Level

The reactor will not be operable and no measurable power level will be produced.
 2. Technical Specifications

The Technical Specifications contained in Appendix A as revised are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications until such time that all fuel materials have been removed from the facility. The dismantling order issued 3/9/87 (7590-01) will be effective upon removal of all fuel materials.
 3. Physical Security

The licensee shall maintain and fully implement all the provisions of the Commission-approved physical security plan, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). The approved security plan consists of documents withheld from public disclosure pursuant to 10 CFR 2.790(d), entitled "University of Texas Physical Security Plan for the Protection of Reactor Facilities and Special Nuclear Materials of Low Strategic Significance," submitted by letter dated June 30, 1983 (plan dated June 1983).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

The University of Texas
at Austin

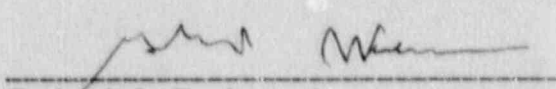
Balcones Research Center
Nuclear Engineering Teaching
Laboratory (NETL)

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Docket No. 50-602

AFFIDAVIT

Gerhard J. Fonken being duly sworn, hereby deposes and says that he is Executive Vice President and Provost, The University of Texas at Austin; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the enclosed updated Physical Security Plan, dated May 1990, Revision 1, for docket 50-602 and Construction Permit CPRR-123; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge and belief.

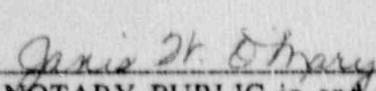


Gerhard J. Fonken
Executive Vice President and Provost

STATE of TEXAS

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Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 31st day of October, 19 90.



NOTARY PUBLIC in and for the State of Texas

TABLE 1
Part 70 License Materials
Docket 50-192

<u>Isotope</u>	<u>Description</u>	<u>Grams</u>	<u>Comments</u>
U235	control elements(3)	120	20% enrichment
U235	instrument elements (4)	140	20% enrichment
U235	fuel elements (147)	5349	20% enrichment
U235	detector WL6376 (2)	4	93% enrichment
U235	detector RSN314	2	93% enrichment
U235	detector RSN10A	2	93% enrichment
U235	detector GA	1	93% enrichment
<u>TOTALS:</u>		<u>5620</u>	

NOTE: Current reactor startup source is a 2 curie AmBe source.

TABLE 2
Part 70 License Materials
Docket 50-192

<u>Isotope</u>	<u>Description</u>	<u>m g</u>	<u>Comments</u>
----- U233	experiment foil	4.5	12/69 purchase
U233	experiment foil	5	1/91 acquisition
Total		----- 9.5	
----- U235	experiment foil	40	1/91 acquisition
Total		----- 40	
----- Pu239	experiment foil	0.093	purchase
Pu239	experiment foil	0.7	1/91 acquisition
Pu239	experiment foil	5.	1/91 acquisition
Pu239	experiment foil	27	1/91 acquisition
Total		----- 33	
----- Pu240	experiment foil	0.171	purchase
Total		----- 1	
----- Pu241	experiment foil	0.171	purchase
Total		----- 1	

TABLE 3
Part 70 License Materials
Docket 50-192

<u>Isotope</u>	<u>Description</u>	<u>Grams</u>	<u>Comments</u>
Pu ²³⁹ materials	Pu ₂ SO ₄ ·4 H ₂ O	1	reference
U ²³⁵	U ₃ O ₈ , UO ₂	10	reference materials
Pu ²³⁹	fuel pins PuO ₂	150	stainless steel encapsulation

TABLE 4
Part 70 License Materials
Docket 50-192

<u>Isotope</u>	<u>Description</u>	<u>Grams/mgs</u>	<u>Comments</u>
U ²³⁸		6.8 gm	fabricated pellets
U ²³⁶		8 mg	experiment foil