May 10, 2001

Mr. Sean O'Kelly
Associate Director
The University of Texas at Austin
Nuclear Engineering Teaching Laboratory
J. J. Pickle Research Campus
Building 159
Austin, TX 78712

SUBJECT: UNIVERSITY OF TEXAS AT AUSTIN - AMENDMENT RE: ADMINISTRATIVE REQUIREMENTS (TAC NO. MB1361)

Dear Mr. O'Kelly:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 4 to Facility Operating License No. R-129 for the University of Texas at Austin TRIGA Reactor. The amendment consists of changes to the Facility Technical Specifications (TSs) in response to your application of February 26, 2001.

The amendment modifies the administrative structure in the TSs for the Nuclear Engineering Teaching Laboratory and updates reporting requirements to reflect changes in NRC organization.

A copy of the safety evaluation supporting Amendment No. 4 is also enclosed.

Sincerely,

/RA/

Alexander Adams, Jr., Senior Project Manager
Events Assessment, Generic Communications and
Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-602

Enclosures:
1. Amendment No. 4
2. Safety Evaluation

cc w/enclosures:

Please see next page

cc:

Governor's Budget and
Planning Office
P.O. Box 13561
Austin, TX 78711

Bureau of Radiation Control
State of Texas
1100 West 49th Street
Austin, TX 78756

Mr. R. Jacobi
7300 Grass Cove
Austin, TX 78759

Mr. Roger Mulder
Office of the Governor
P.O. Box 12428
Austin, TX 78711

Dr. Carl A. Beard, Director
Nuclear Engineering Teaching
Laboratory
The University of Texas at Austin
Balcones Research Center
Building No. 159
Austin, TX 78712

May 10, 2001

Mr. Sean O'Kelly
Associate Director
The University of Texas at Austin
Nuclear Engineering Teaching Laboratory
J. J. Pickle Research Campus
Building 159
Austin, TX 78712

SUBJECT: UNIVERSITY OF TEXAS AT AUSTIN - AMENDMENT RE: ADMINISTRATIVE REQUIREMENTS (TAC NO. MB1361)

Dear Mr. O'Kelly:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 4 to Facility Operating License No. R-129 for the University of Texas at Austin TRIGA Reactor. The amendment consists of changes to the Facility Technical Specifications (TSs) in response to your application of February 26, 2001.

The amendment modifies the administrative structure in the TSs for the Nuclear Engineering Teaching Laboratory and updates reporting requirements to reflect changes in NRC organization.

A copy of the safety evaluation supporting Amendment No. 4 is also enclosed.

Sincerely,

/RA/

Alexander Adams, Jr., Senior Project Manager
Events Assessment, Generic Communications and
Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-602

Enclosures:
1. Amendment No. 4
2. Safety Evaluation

cc w/enclosures:
Please see next page

DISTRIBUTION:

PUBLIC	REXB r/f	TDragoun	MMendonca
AAdams	LMarsh	OGC	EHylton
FGillespie	SHolmes	CBassett	DMatthews
WEresian	PIsaac	GHill (2) (T5-C3)	PDoyle

ACCESSION NO.: ML010810250 **TEMPLATE #: NRR-056**
***Please see previous concurrence**

OFFICE	REXB:LA		TechEd		REXB:PM		OGC		REXB:BC	
NAME	EHylton:rdr		*PKleene		AAdams				LMarsh	
DATE	04/ 27 /2001		04/ 20 /2001		04/ 30 /2001		05/ 03 /2001		05/ 09 /2001	

C = COVER **E = COVER & ENCLOSURE** **N = NO COPY**

OFFICIAL RECORD COPY

UNIVERSITY OF TEXAS AT AUSTIN

DOCKET NO. 50-602

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 4
License No. R-129

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that

   A. The application for an amendment to Facility Operating License No. R-129 filed by the University of Texas at Austin (the licensee) on February 26, 2001, conforms to the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the regulations of the Commission as stated in Chapter I of Title 10 of the *Code of Federal Regulations* (10 CFR);

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance that (i) the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) such activities will be conducted in compliance with the regulations of the Commission;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;

   E. This amendment is issued in accordance with the regulations of the Commission as stated in 10 CFR Part 51, and all applicable requirements have been satisfied; and

   F. Prior notice of this amendment was not required by 10 CFR 2.105 and publication of a notice for this amendment is not required by 10 CFR 2.106.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. R-129 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 4, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ledyard B. Marsh, Chief
Events Assessment, Generic Communications and
Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Enclosure:
Appendix A, Technical Specifications

Date of Issuance: May 10, 2001

ENCLOSURE TO LICENSE AMENDMENT NO. 4

FACILITY OPERATING LICENSE NO. R-129

DOCKET NO. 50-602

Replace the following pages of Appendix A, "Technical Specifications," with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

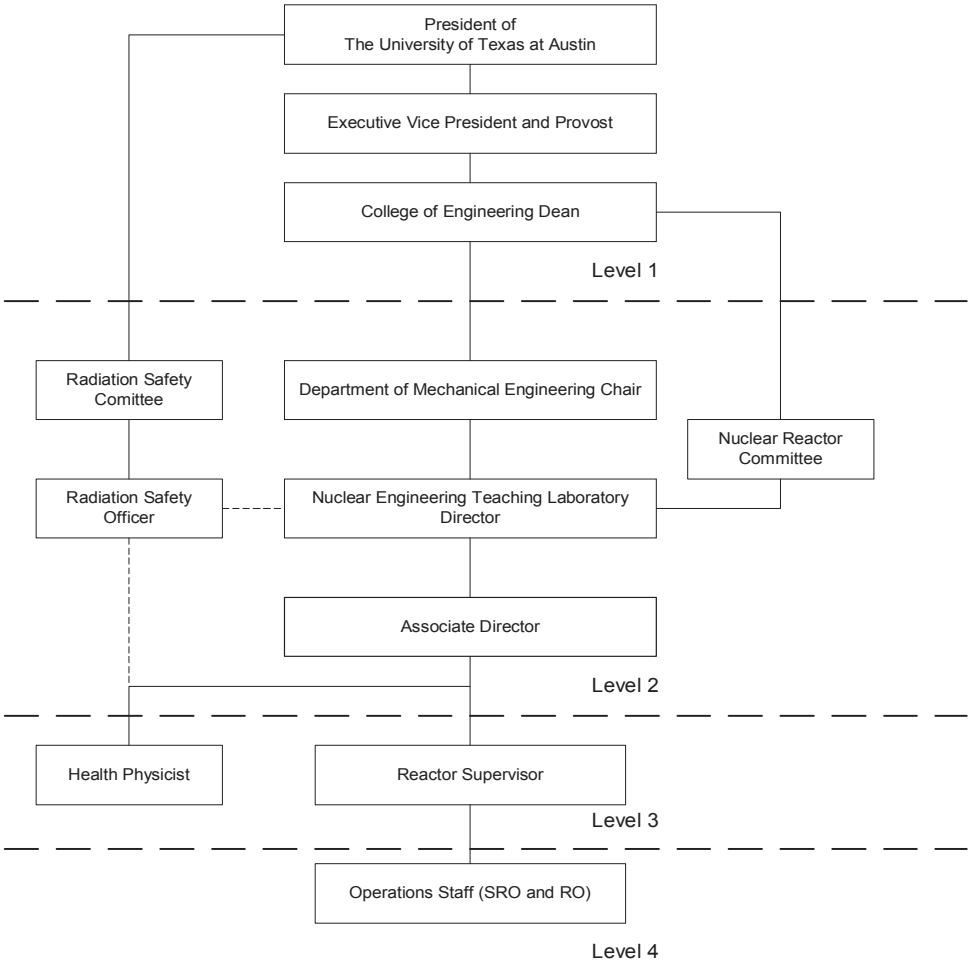
Remove	Insert
27	27
28	28
33	33
34	34

6.0 ADMINISTRATIVE CONTROLS

6.1 Organization

6.1.1 Structure

The facility shall be under the control of the Director, Associate Director or a delegated Senior Reactor Operator. The management for operation of the facility shall consist of the organizational structure as follows:



Responsibility ❯ ❯ ❯
Communication ---

6.1.2 Responsibility

The Director shall be responsible to the Dean of the College of Engineering and the Chairman of the Department of Mechanical Engineering for safe operation and maintenance of the reactor and its associated equipment. These responsibilities may be delegated to the Associate Director during the Director's absence from the Facility. A member of Facility Management (Director or Associate Director) or a Senior Reactor Operator shall review and approve all experiments and experimental procedures prior to their use in the reactor. Line Management designated in Section 6.1.1 shall be responsible for the policies and operation of the facility, shall be responsible for safeguarding the public and facility personnel from undue radiation exposures and for adhering to the operating license and technical specifications.

6.1.3 Staffing

The minimum staffing when the reactor is not shutdown shall be:

a. A certified operator in the control room.

b. A second person in the facility area that can perform prescribed written instructions. Unexpected absence for two hours shall require immediate action to obtain an alternate person.

c. A senior reactor operator readily available. The available operator should be within thirty minutes of the facility and reachable by telephone.

Events requiring the direction of a senior reactor operator shall be:

a. All fuel element or control rod relocations within the reactor core region.

b. Relocation of any experiment with a reactivity worth of greater than one dollar.

c. Recovery from an unscheduled shutdown or significant power reduction.

d. Initial startup and approach to power.

A list of reactor facility personnel by name and telephone number shall be available to the operator in the control room. The list shall include:

a. Management personnel.

b. Radiation safety personnel.

c. Other operations personnel.

6.6 Reports

All written reports shall be sent within the prescribed interval to the NRC, Washington D.C. 20555, Atten: Document Control Desk.

6.6.1 Operating Reports

Routine annual reports covering the activities of the reactor facility during the previous calendar year shall be submitted within three months following the end of each prescribed year. Each annual operating report shall include the following information:

a. A narrative summary of reactor operating experience including the energy produced by the reactor or the hours the reactor was critical, or both.

b. The unscheduled shutdowns including, where applicable, corrective action taken to preclude recurrence.

c. Tabulation of major preventive and corrective maintenance operations having safety significance.

d. Tabulation of major changes in the reactor facility and procedures, and tabulation of new tests or experiments, or both, that are significantly different from those performed previously, including conclusions that no unreviewed safety questions were involved.

e. A summary of the nature and amount of radioactive effluents released or discharged to the environs beyond the effective control of the university as determined at or before the point of such release or discharge. The summary shall include to the extent practicable an estimate of individual radionuclides present in the effluent. If the estimated average release after dilution or diffusion is less than 25% of the concentration allowed or recommended, a statement to this effect is sufficient.

f. A summary of exposures received by facility personnel and visitors where such exposures are greater than 25% of that allowed or recommended.

g. A summarized result of environmental surveys performed outside the facility.

6.6.2 Special Reports

A written report within 30 days to the NRC of:

a. Permanent changes in the facility organization involving Level 1 or Level 2 personnel.

b. Significant changes in transient or accident analysis as described in the Safety Analysis Report.

A report to NRC Operations Center by telephone not later than the following working day and confirmed in writing by telegraph or similar conveyance to be followed by a written report within 14 days that describes the circumstances of the event of any of the following:

a. Violation of fuel element temperature safety limit.

b. Release of radioactivity above allowable limits.

c. Other reportable occurrences.

Other events that will be considered reportable events are listed in this section. A return to normal operation or curtailed operation until authorized by management will occur. (Note: Where components or systems are provided in addition to those required by the technical specifications, the failure of components or systems is not considered reportable provided that the minimum number of components or systems specified or required perform their intended reactor safety function.)

a. Operation with actual safety-system settings for required systems less conservative than the limiting safety system settings specified in the technical specifications.

b. Operation in violation of limiting conditions for operation established in technical specifications unless prompt remedial action is taken.

c. A reactor safety system component malfunction which renders or could render the reactor safety system incapable of performing its intended safety function unless the malfunction or condition is discovered during maintenance tests or periods of reactor shutdowns.

d. An unanticipated or uncontrolled change in reactivity greater than one dollar. Reactor trips resulting from a known cause are excluded.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 4 TO

FACILITY OPERATING LICENSE NO. R-129

THE UNIVERSITY OF TEXAS AT AUSTIN

DOCKET NO. 50-602

1.0 INTRODUCTION

By letter dated February 26, 2001, the University of Texas at Austin (UT or licensee) submitted a request for amendment to Facility Operating License No. R-129 for the UT TRIGA Research Reactor. The requested changes would modify the administrative structure in the Technical Specifications (TSs) for the Nuclear Engineering Teaching Laboratory (NETL) and update reporting requirements to reflect changes in NRC organization.

2.0 EVALUATION

The licensee has requested changes to TS 6.0 to reflect the changed administrative structure of the NETL. The changes would reflect the addition of an Associate Director to the NETL administration. The Associate Director is responsible for daily facility operations and supervises the Reactor Operations and Health Physics groups. The Associate Director is also delegated to act for the Director when the Director is absent. TS 6.1.1, "Structure," currently reads:

> 6.1.1 Structure
>
> The facility shall be under the control of the Director or a supervisory Senior Reactor Operator. The management for operation of the facility shall consist of the organizational structure established as follows:

The licensee has proposed changing this to:

> 6.1.1 Structure
>
> The facility shall be under the control of the Director, Associate Director or a Senior Reactor Operator. The management for operation of the facility shall consist of the organizational structure as follows:

This section of the TS is followed by the organizational chart.

TS 6.1.2, "Responsibility," currently reads:

> 6.1.2 Responsibility
>
> The Director shall be responsible to the Dean of the College of Engineering and the Chairman of the Department of Mechanical Engineering for safe operation and maintenance of the reactor and its associated equipment. The Director or a supervisory Senior Reactor Operator shall review and approve all experiments and experimental procedures prior to their use in the reactor. Individuals of the management organization shall be responsible for the policies and operation of the facility, and shall be responsible for safeguarding the public and facility personnel from undue radiation exposures and for adhering to the operating license and technical specifications.

The licensee has proposed changing the TS as follows:

> 6.1.2 Responsibility
>
> The Director shall be responsible to the Dean of the College of Engineering and the Chairman of the Department of Mechanical Engineering for safe operation and maintenance of the reactor and its associated equipment. These responsibilities may be delegated to the Associate Director during the Director's absence from the Facility. A member of Facility Management (Director or Associate Director) or a Senior Reactor Operator shall review and approve all experiments and experimental procedures prior to their use in the reactor. Line Management designated in Section 6.1.1 shall be responsible for the policies and operation of the facility, shall be responsible for safeguarding the public and facility personnel from undue radiation exposures and for adhering to the operating license and technical specifications.

The licensee has also proposed changes to the organizational chart in the TSs to add the position of Associate Director to the organizational chart as a Level 2 manager reporting to the Director of the NETL. The Reactor Supervisor and Health Physicist report to the Associate Director. Management levels at non-power reactors are discussed in the "American National Standard for the Development of Technical Specifications for Research Reactors," ANSI/ANS 15.1-1990 (ANS 15.1). This standard is generally accepted by the NRC staff for the administrative TSs of non-power reactors. The standard states that Level 2 management is responsible for reactor facility operation. The staff concludes that the addition of the Associate Director is in accord with ANS 15.1 and all Level 2 management functions remain at level two. Therefore the addition of an Associate Director to the organizational structure of the NETL is acceptable to the staff.

The licensee proposed replacing "Supervising Senior Reactor Operator" in TS 6.1.1 with "Senior Reactor Operator." The NRC Project Manager and the Associate Director of the NETL discussed this proposed wording and other issues concerning this license amendment application during a telephone conversation on March 19, 2001. It was agreed to change the wording to "a delegated Senior Reactor Operator" to indicate that a single individual be in control of the facility. The proposed wording for TSs 6.1.1 with this discussed change is:

6.1.1 Structure

The facility shall be under the control of the Director, Associate Director or a delegated Senior Reactor Operator. The management for operation of the facility shall consist of the organizational structure as follows:

This is acceptable to the staff because a single Senior Reactor Operator is given clear responsibility for the facility.

The Dean of the College of Engineering position on the organizational chart has moved from a Level 2 position to a Level 1 position. ANS 15.1 defines Level 1 positions as those responsible for the reactor facility's licenses. As a member of upper level university management, the Dean of the College of Engineering fits the definition of Level 1 manager and this change is therefore acceptable to the staff. Several minor wording changes were made to the organizational chart (e.g., changing the title "Dean College of Engineering" to "College of Engineering Dean"). The staff has determined that these changes are editorial and do not change the meaning of the TS and are therefore acceptable. These changes were discussed with the licensee during the March 19, 2001, telephone conversation.

The licensee had placed the title "Associate Director/Reactor Administrator" on the organizational chart. During the telephone conversation of March 19, 2001, it was agreed to amend the title to "Associate Director." The licensee had added the title "Reactor Administrator" to the proposed organizational chart to match a sample organizational chart presented in ANS 15.1. The standard points out that the titles in the chart are given as examples only. This change deletes a meaningless title in the proposed organizational chart and is acceptable to the staff.

The licensee proposed other wording changes to clarify TS 6.1.2, "Responsibility." The changes do not change the meaning of the TS and are acceptable to the staff. The licensee proposed that the phrase "supervisory Senior Reactor Operator" be changed to "Senior Reactor Operator." The modifier "supervisory" was removed because all holders of Senior Reactor Operator Licenses can review and approve experiments and experimental procedures prior to their use in the reactor. These changes were discussed with the licensee during the March 19, 2001, telephone conversation. This change clarifies the responsibilities of "Senior Reactor Operator" and is therefore acceptable to the staff.

The licensee has proposed changing TS 6.6, "Reports," to remove the requirement that written and telephone reports be made to NRC Region IV as well as to NRC Headquarters. This change reflects the transfer of inspection responsibility for non-power reactors from the regional offices to headquarters. Because the proposed change makes the TSs consistent with the NRC's organizational structure, this change is acceptable to the staff.

The licensee has proposed a change to TS 6.6.2.1 a, which requires the submission to NRC of a written report within 30 days of changes in facility organization. The TS currently reads:

a. Permanent changes in the facility organization involving Director or Supervisor.

The licensee has proposed changing this to:

a. Permanent changes in the facility organization involving Level 1 or Level 2 personnel.

This change makes the TSs similar to the guidance given in ANS 15.1 and expands the organization titles for which personnel changes must be reported to NRC. For these reasons, this change is acceptable to the staff.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, on the basis of the considerations discussed above, that (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously evaluated, does not create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed activities; and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributor: A. Adams, Jr.

Date: May 10, 2001