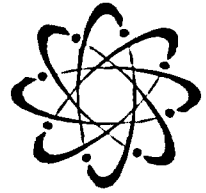


**Nuclear Reactor Laboratory**

University of Illinois at Urbana-Champaign  
Department of Nuclear, Radiological and Plasma Engineering / College of Engineering

214 Nuclear Engineering Laboratory  
103 South Goodwin Avenue  
Urbana, IL 61801-2984

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217-333-2906 fax  
r-holm@uiuc.edu



**Reactor Administrator: Richard L. Holm**

September 8, 2004  
Docket No. 50-151

Mr. Alexander Adams, Jr.  
United States Nuclear Regulatory Commission  
ATTN: Alexander Adams, REXB  
MS 012-G13  
Washington, DC 20555-0001

**SUBJECT: Eliminate Reactor Health Physicist Position and one hour on-call requirement from Technical Specifications.**

Dear Mr. Adams,

Please find enclosed a request for changes to the Technical Specifications at the University of Illinois. The following attachments are enclosed:

- Justification for Changes – this document shows the “callout” on the revised specification and a justification for the change.
- Appropriate pages from the technical specifications showing the revisions.
- Appropriate pages from the technical specifications with the revisions incorporated.

If there are any questions please do not hesitate to contact me.

Regards,

Richard L. Holm  
Reactor Administrator

Attach.

C: File

A020

**Justification for September 2004 Changes to UIUC Nuclear Reactor Laboratory Technical Specifications, Docket 50-151**

**JUSTIFICATION:**

1. *The position of Reactor Health Physicist at the reactor has been eliminated. Duties will be performed by the Reactor Administrator and support from the Radiation Safety Office.* Deleted: There shall be a Reactor Health Physicist responsible for assuring the day to day and routine radiological safety activities at the Nuclear Reactor Laboratory.
2. *The Reactor Health Physicist is replaced by "Radiation Safety Office Support".* Deleted: Reactor Health Physicist
3. *The position of Reactor Health Physicist at the reactor has been eliminated.* Deleted: 2. Reactor Health Physicist. This individual shall meet the requirements of ANSI/ANS-15.4-1988 "American National Standard for the Selection and Training of Personnel for Research Reactors" for a Level Three individual in addition to training in health physics.†
4. *With the removal of fuel from this facility, reducing the amount of SNM on-site to less than 10 grams, this requirement is no longer necessary. Accident scenarios are now the same as an laboratory using radioactive material. Response to this type of scenario is covered by the campus Radiation Safety Manual.* Deleted: One of these individuals shall be reachable and able to respond to the facility within approximately one hour.
5. *The position of Reactor Health Physicist at the reactor has been eliminated.* Deleted: 4. Reactor Health Physicist†
6. *With the removal of fuel from the facility there are no licensed operators.* Deleted: 5. Licensed operators†
7. *Deleted a comma and inserted "and" for grammatical correction.* Deleted: ,
8. *The position of Reactor Health Physicist at the reactor has been eliminated.* Deleted: , and one whom shall be the Reactor Health Physicist.
9. *Since the Reactor Health Physicist position is eliminated, the Reactor Administrator (inserted "Administrator") shall be responsible for the Radiation Protection Program.* Deleted: Health Physicist

6.0 ADMINISTRATIVE CONTROLS

6.1 Organization

6.1.1 Structure and Responsibility

- a. The reactor facility shall be an integral part of the Department of Nuclear, Plasma and Radiological Engineering of the University of Illinois. The reactor shall be related to the University structure as shown in Chart I.
- b. The reactor facility shall be under the supervision of the Reactor Administrator who shall have been qualified as a licensed senior reactor operator for the reactor. He shall be responsible for assuring that all operations are conducted in a safe manner and within the limits prescribed by the facility license and the provisions of the Nuclear Reactor Committee.
- c. , The University of Illinois Radiation Safety Officer shall be responsible for monitoring, planning, and promoting radiological safety at the Nuclear Reactor Laboratory. He has the responsibility and authority to stop, secure or otherwise control as necessary any operation or activity that poses an unacceptable radiological hazard.

**Deleted:** There shall be a Reactor Health Physicist responsible for assuring the day to day and routine radiological safety activities at the Nuclear Reactor Laboratory.

CHART I

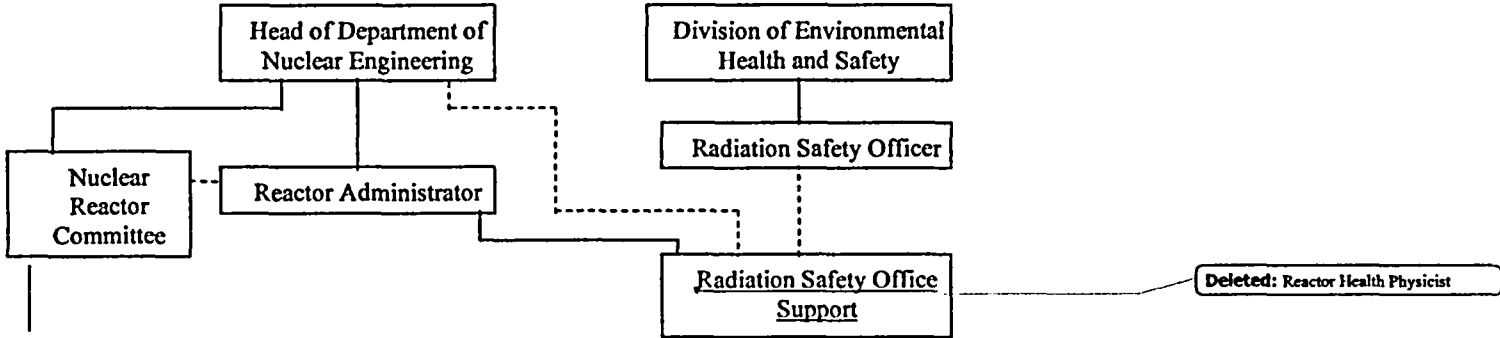


CHART I: Administrative organization of the reactor facility. Dashed lines indicate reporting paths outside the operational chain of supervision, indicated by solid lines.

6.1.2 Staffing

a. The minimum staffing at the Nuclear Reactor Laboratory shall be:

1. Reactor Administrator. This individual shall meet the requirements of ANSI/ANS-15.4-1988 "American National Standard for the Selection and Training of Personnel for Research Reactors" for a Level Two individual.

b. A list of reactor personnel by name and telephone number shall be readily available to the UIUC Division of Public Safety dispatcher. The list shall include:

1. Campus Radiation Safety Officer
2. Reactor Administrator
3. Head, Department of Nuclear Engineering

Deleted: 2. Reactor Health Physicist. This individual shall meet the requirements of ANSI/ANS-15.4-1988 "American National Standard for the Selection and Training of Personnel for Research Reactors" for a Level Three individual in addition to training in health physics.

Deleted: One of these individuals shall be reachable and able to respond to the facility within approximately one hour.

c. Events requiring the presence at the facility of a Senior Reactor Operator:

1. Initial startup and approach to power.
2. All fuel or control rod relocations..
3. Relocation of any in-core experiment with a reactivity worth greater than one dollar.
4. Recovery from unplanned or unscheduled shutdown or significant power reduction (In these instances, documented verbal concurrence from the Senior Reactor Operator is required).

Deleted: 4. Reactor Health Physicist

Deleted: 5. Licensed operators

6.1.3 Selection and Training of Personnel

The Reactor Administrator is responsible for the training and requalification of the facility reactor operators and senior reactor operators. The selection, training, and requalification of operations personnel shall be consistent with all current regulations and guidelines.

## 6.2 Review and Audit

### 6.2.1 Charter and Rules

- a. The Reactor Committee shall be composed of at least five voting members, one of whom shall be a Health Physicist designated by the campus Radiation Safety Officer for the University and, one whom shall be the Reactor Administrator, ~~The remaining members shall be appointed by the Head of the Department of Nuclear Engineering, so as to maintain a balanced knowledge of reactor safety and regulation.~~
- b. The Reactor Committee shall have a written statement defining such matters as the authority of the committee, the subjects within its purview, and other such administrative provisions as are required for the effective functioning of the Reactor Committee Minutes of all meetings of the Reactor Committee shall be kept.
- c. A quorum of the Reactor Committee shall be a majority of not less than one half of the members and the reactor staff shall not constitute a voting majority.
- d. The Reactor Committee shall meet at least semiannually not to exceed nine months

Deleted: ,

Deleted: , and one whom shall be the Reactor Health Physicist.

### 6.2.2 Review Function

The review function of the Committee shall include, but is not limited to the following:

- a. Determination that proposed changes in equipment, systems, tests, experiments, or procedures do not involve an unreviewed safety question.
- b. All new procedures and major revisions thereto having safety significance, proposed changes in reactor facility equipment, or systems having safety significance.
- c. All new experiments or classes of experiments for determination that an unreviewed safety question does not exist.
- d. Proposed changes in the technical specifications or license.
- e. Violations of technical specifications or license.
- f. Operating abnormalities having safety significance.
- g. Reportable occurrences as listed in 6.8.
- h. Audit reports.

A written report or minutes of the findings and recommendations of the Committee shall be submitted to the Head, Department of Nuclear Engineering, and the Reactor Committee members in a timely manner after each meeting.

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CHART I

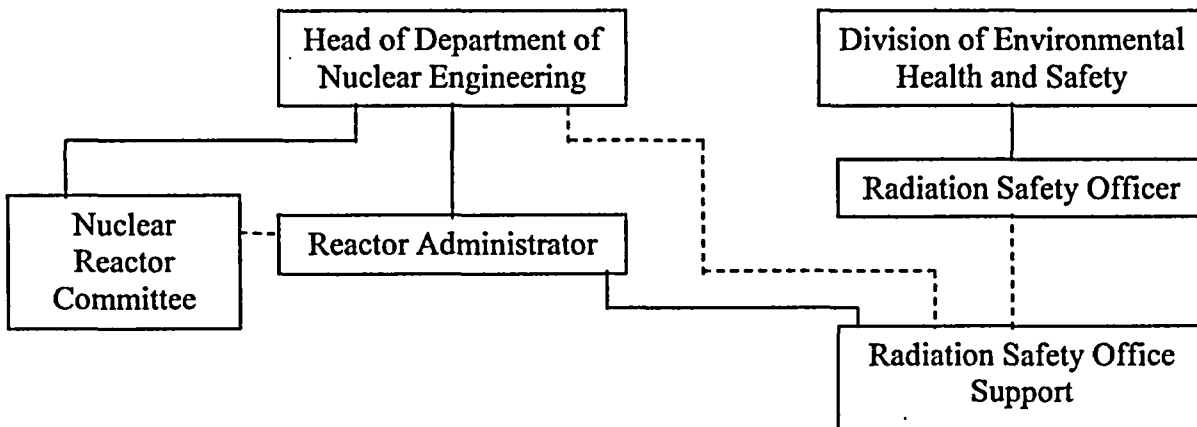


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- g. Reportable occurrences as listed in 6.8.
- h. Audit reports.

A written report or minutes of the findings and recommendations of the Committee shall be submitted to the Head, Department of Nuclear Engineering, and the Reactor Committee members in a timely manner after each meeting.



### 6.3 Radiation Safety

The Reactor Administrator shall be responsible for implementing the Radiation Protection Program at the reactor such that all regulatory requirements are met and guidelines followed as applicable.