



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 14, 2019

Captain John Gilstad, Director
Armed Forces Radiobiology Research Institute
National Naval Medical Center
8901 Wisconsin Avenue
Bethesda, MD 20889-5603

SUBJECT: ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE – ISSUANCE OF AMENDMENT NO. 25 TO RENEWED FACILITY OPERATING LICENSE NO. R-84 TO AMEND TECHNICAL SPECIFICATIONS 6.1.3.1.b. AND 6.2.5, QUALIFICATIONS FOR REACTOR FACILITY DIRECTOR AND AUDIT FREQUENCIES (EPID NO. L-2018-LLA-0286)

Dear Captain Gilstad:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 25 to Renewed Facility Operating License No. R-170 for the Armed Forces Radiobiology Research Institute (AFRRI). The amendment consists of changes to the technical specifications (TSs), in response to the AFRRI application dated November 8, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18318A306), as supplemented by letter dated February 27, 2019 (ADAMS Accession No. ML19101A193).

This amendment revises the qualification requirement for the reactor facility director as listed in TS 6.1.3.1.b. and changes the frequency of audits of some items listed in TS 6.2.5, including the Operator Requalification Program, Emergency Plan, and Physical Security Plan.

A copy of the NRC staff's safety evaluation is also enclosed. If you have any questions, please contact me at 301-415-3398, or by electronic mail at Cindy.Montgomery@nrc.gov.

Sincerely,

/RA/

Cindy Montgomery, Project Manager
Research and Test Reactors Licensing Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Docket No. 50-170
License No. R-84

Enclosures:

1. Amendment No. 25 to Renewed Facility Operating License No. R-84
2. Safety Evaluation

cc: w/enclosure: See next page

Armed Forces Radiobiology Research Institute

Docket No. 50-170

cc:

Director, Maryland Office of Planning
301 West Preston Street
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SUBJECT: ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE – ISSUANCE OF AMENDMENT NO. 25 TO RENEWED FACILITY OPERATING LICENSE NO. R-84 TO AMEND TECHNICAL SPECIFICATIONS 6.1.3.1.b. AND 6.2.5, QUALIFICATIONS FOR REACTOR FACILITY DIRECTOR AND AUDIT FREQUENCIES (EPID NO. L-2018-LLA-0286) DATE: AUGUST 14, 2019

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ADAMS Accession No. ML19058A327

***concurred via email**

NRR-058

OFFICE	NRR/DLP/PRLB/PM	NRR/DLP/PRLB/LA*	OGC/	NRR/DLP/PRLB/BC	NRR/DLP/PRLB/PM
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DATE	2/26/2019	4/18/2019	8/12/2019	8/14/2019	8/14/2019

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ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE

DOCKET NO. 50-170

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 25
License No. R-84

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to Renewed Facility Operating License No. R-84, filed by the Armed Forces Radiobiology Research Institute, (the licensee), on November 8, 2018, as supplemented by letter dated February 27, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Chapter I;
 - 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 (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - 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. The issuance of this amendment is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations and all applicable requirements have been satisfied; and
 - F. Prior notice of this amendment was not required by 10 CFR 2.105, "Notice of proposed action," and publication of notice of this amendment is not required by 10 CFR 2.106, "Notice of issuance."

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the Attachment 2 to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. R-84 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised by Amendment No. 25 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 its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA William Kennedy for/

Greg A. Casto, Chief
Research and Test Reactors Licensing Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Attachments:

1. Changes to Renewed Facility Operating License No. R-84
2. Changes to Appendix A, "Technical Specifications"

Date of Issuance: August 14, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 25

RENEWED FACILITY OPERATING LICENSE NO. R-84

DOCKET NO. 50-170

Replace the following page of the Renewed Facility Operating License No. R-84 with the revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Renewed Facility Operating License

Remove

3

Insert

3

- b. to receive, possess, and use, but not separate, in connection with the operation of the facility, up to 100 grams total of special nuclear material, of any enrichment, in the form of detectors, fission plates, foils, and solutions; and
 - c. to receive, possess, and use, but not separate, in connection with the operation of the facility, such special nuclear material as may be produced by the operation of the facility.
 - 3. Pursuant to the Act and 10 CFR Part 30, the following activities are included:
 - a. to receive, possess, and use, in connection with the operation of the facility, a sealed 3-curie americium-beryllium neutron source; and,
 - b. to receive, possess, and use, in connection with operation of the facility, such byproduct material as may be produced by operation of the reactor, which cannot be separated except for byproduct material produced in non-fueled reactor experiments.
 - 4. Pursuant to the Act and 10 CFR Part 40, "Domestic Licensing of Source Material," to receive, possess, and use, in connection with the operation of the facility, not more than 5.0 kilograms of source material.
- C. This license shall be deemed to contain, and is subject to the conditions specified 10 CFR Parts 20, 30, 40, 50, 51, 55, 70, and 73 of the Commission's regulations; is subject to all provisions of the Act, and to the rules, regulations and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below:
 - 1. Maximum Power Level

The licensee is authorized to operate the reactor at a steady-state power level up to a maximum of 1.1 megawatts (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 by Amendment No. 25 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

ATTACHMENT TO LICENSE AMENDMENT NO. 25

RENEWED FACILITY OPERATING LICENSE NO. R-84

DOCKET NO. 50-170

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

Technical Specifications

Remove

43

48

Insert

43

48

At the time of appointment to this position, the Reactor Facility Director shall have six or more years of nuclear experience. The individual shall have a baccalaureate or higher degree in an engineering or scientific field. The degree may fulfill up to four years of experience on a one-for-one basis. The Reactor Facility Director shall have held a USNRC Senior Reactor Operator license on the AFRRI reactor for at least one year before appointment to this position. Education and/or experience that is job-related may be substituted for a degree on a case-by-case basis.

c. Reactor Operations Supervisor

At the time of appointment to this position, the Reactor Operations Supervisor shall have three years nuclear experience. Higher education in a scientific or engineering field may fulfill up to two years of experience on a one-for-one basis. The Reactor Operations Supervisor shall hold a USNRC Senior Reactor Operator license on the AFRRI reactor. In addition, the Reactor Operations Supervisor shall have one year of experience as a USNRC licensed Senior Reactor Operator at AFRRI or at a similar facility before the appointment to this position.

d. Reactor Operators/Senior Reactor Operators

At the time of appointment to this position, an individual shall have a high school diploma or equivalent, and shall possess the appropriate USNRC license.

e. Additional reactor staff as required for support and training

At the time of appointment to the reactor staff, an individual shall possess a high school diploma or equivalent.

6.1.3.2. Operations

a. Minimum staff when the reactor is not secured shall include:

1. A licensed Senior Reactor Operator on call, but not necessarily on site;
2. Radiation control technician on call, but not necessarily on site;
3. At least one licensed Reactor Operator or Senior Reactor Operator present in the control room; and

6.2.5. AUDIT FUNCTION

Audits of reactor facility operations shall be performed under the cognizance of the RRFSS, but in no case by the personnel responsible for the item audited. The audits shall be performed either annually, not to exceed 15 months, or biennially, not to exceed 30 months. The audit frequency is indicated below for each item (in parenthesis). A report of the findings and recommendations resulting from the audit shall be submitted to the AFRRRI Licensee within three months after the report has been received. Deficiencies uncovered that affect reactor safety shall immediately be reported to level one management. Audits may be performed by one or more individuals who need not be RRFSS members. These audits shall examine the operating records and the conduct of operations, and shall encompass the following:

- a. Conformance of facility operation to the Technical Specifications and the license (annually);
- b. Performance, training, and qualifications of the reactor facility staff (biennially);
- c. Results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems, or methods of operation that affect safety (annually);
- d. Facility emergency plan and implementing procedures (biennially);
- e. Facility Physical Security Plan (biennially);
- f. Any other area of facility operations considered appropriate by the RRFSS or the AFRRRI Director (annually); and
- g. Reactor Facility ALARA Program. This program may be a section of the total AFRRRI program (annually).

6.3. PROCEDURES

Written procedures for certain activities shall be approved by the Reactor Facility Director and reviewed by the RRFSS. The procedures shall be adequate to ensure safe operation of the reactor, but shall not preclude the use of independent judgment and action as deemed necessary. Operational procedures shall be used for the following items:

- a. Conduct of irradiation and experiments that could affect the operation and safety of the reactor;
- b. Surveillance, testing, maintenance, and calibration of instruments, components, and systems involving nuclear safety;



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 25 TO

RENEWED FACILITY OPERATING LICENSE NO. R-84

ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE RESEARCH REACTOR

DOCKET NO. 50-170

1.0 INTRODUCTION

By application dated November 8, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18318A306), as supplemented by letter dated February 27, 2019 (ADAMS Accession No. ML19101A193), the Armed Forces Radiobiology Research Institute (AFRRI, or the licensee), requested changes to the technical specifications (TSs) for the AFRRI Research Reactor.

The proposed changes would revise the qualification requirements in TS 6.1.3.1.b., "Selection of Personnel, Reactor Facility Director," for the Reactor Facility Director (RFD) to allow experience to be substituted for a baccalaureate degree in an engineering discipline. In addition, the proposed changes would change the frequencies of audits of some aspects of facility operation listed in TS 6.2.5, "Audit Function."

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the licensee's amendment request, as supplemented, to ensure that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

The NRC staff considered the following statutory and regulatory requirements and guidance during its review of the proposed changes:

- The Atomic Energy Act of 1954, as amended, Section 182a, requires that each utilization facility operating license include TSs. The regulations in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," provide regulatory requirements for licensing of non-power reactors. The regulatory requirements related to the content of the TSs for nuclear reactors, in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical specifications," paragraph (c)(5),

requires that TSs include “[a]dministrative controls” relating to organization and management, procedures, recordkeeping, review and audit, and reporting functions necessary to assure operation of the facility in a safe manner.

- The regulations in 10 CFR Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions,” provide regulatory requirements for the protection of the environment. 10 CFR 51.22, “Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review,” identifies licensing, regulatory, and administrative actions eligible for categorical exclusion from the requirement to prepare an environmental assessment or environmental impact statement.
- NUREG-1537, Part 1, “Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors, Format and Content,” issued in February 1996, provides guidance for the format and content of non-power reactor licensing applications submitted to the NRC (ADAMS Accession No. ML042430055). NUREG-1537, Part 1, provides guidance for creation of TSs in Appendix 14.1, “Format and Content of Technical Specification for Non-Power Reactors.” Appendix 14.1 states that the NRC accepts the position of the American Nuclear Standards Institute/American Nuclear Society (ANSI/ANS)-15.1-1990, “The Development of Technical Specifications for Research Reactors,” as modified by Appendix 14.1. Appendix 14.1 also states that the NRC accepts the position of the American Nuclear Standards Institute/American Nuclear Society (ANSI/ANS)-15.4-1988, “The Development of Technical Specifications for Research Reactors,” as modified by Appendix 14.1.
 - Section 6, “Administrative Controls,” Subsection 6.2.4, “Audit Function,” of Appendix 14.1 of NUREG-1537, Part 1, which corresponds to AFRRRI TS 6.2.5, states, in part, that, “in addition to the emergency plan, all other required plans, such as physical security and operator requalification, should be specified for auditing.” Section 6.2.4, “Audit Function,” of ANSI/ANS-15.1-1990 states the minimum acceptable frequency for audits is annually for conformance of facility operation to the TS and license; annually for results of actions taken to correct deficiencies occurring in facility equipment, structure, systems, or methods of operation that affect safety; biennially for the retraining and requalification program for the operating staff and biennially for the reactor facility emergency plan and implementing procedures. Since the issuance of NUREG-1537 in 1996, ANSI/ANS-15.1-1990 has been revised and the current version, which the staff used to conduct this TS review, is ANSI/ANS-15.1-2007. The text of Section 6.2.4 is the same in both versions.
 - Section 6, “Administrative Controls,” Subsection 6.1.4, “Selection and Training of Personnel,” of Appendix 14.1 of NUREG-1537, Part 1, which corresponds to the AFRRRI Section 6.1.3.1, “Selection of Personnel,” states that, “ANSI/ANS-15.4-1988 [“Selection and Training of Personnel for Research Reactors”] provides additional guidance for non-power reactors. ANSI/ANS-15.4-1988, Section 4.3, “Level Two,” provides guidance about the individual responsible for reactor facility operations (i.e., facility director/manager/administrator) regarding educational level requirements and years of experience as well as acceptable combinations of education and experience. The NRC staff used the current version, ANSI/ANS-15.4-2016, to conduct this TS review.

Section 4.3 of ANSI/ANS-15.4-1988 states, in part, “If this individual is also to be certified, the individual shall meet the certification requirements of the respective position and chartering or licensing agency. Section 4.3 of ANSI/ANS-15.4-2016 uses the terms “licensed” and “licensing” in lieu of “certified” and “certification” and “responsible authority” instead of “chartering or licensing agency.” Thus, Section 4.3 of ANSI/ANS-15.4-2016, states, “If this individual is also to be licensed, the individual shall meet the licensing requirements of the respective position and responsible authority.” NRC regulations in 10 CFR Part 55, “Operators’ Licenses,” specify requirements for the issuance of licenses to individuals who manipulate the controls of reactors (i.e., operators and senior reactor operators) and individuals responsible for directing the licensed activity of a licensed operator. Part 55 also specifies certain exemptions from those regulations.

- NUREG-1537, Part 2, “Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors: Standard Review Plan and Acceptance Criteria,” issued in February 1996, provides guidance to NRC staff on conducting reviews of non-power reactor applications for licensing actions (ADAMS Accession No. ML042430048). NUREG-1537, Part 2, Chapter 14, “Technical Specifications,” provides guidance for the review and evaluation of proposed TSs.

2.3 TECHNICAL EVALUATION

2.3.1 Background

The AFRRRI reactor, located on the grounds of Walter Reed National Military Medical Center in Bethesda, Maryland, is utilized to perform experiments and research on the biological effects of ionizing radiation.

AFRRRI requested two changes to its TSs in Renewed Facility Operating License No. R-84. The first proposed TS change is related to the required qualifications of the Reactor Facility Director (RFD), a Level 2 facility director/manager/administrator. The licensee requests that TS 6.1.3.1.b., be revised to add flexibility in the requirement that the RFD “have a baccalaureate or higher degree in an engineering or scientific field,” by adding the statement, “Education and/or experience that is job-related may be substituted for a degree on a case-by-case basis.” In its February 27, 2019, letter, the licensee stated, “The requirement of a baccalaureate or higher degree restricts the ability to promote experienced senior reactor operators to the position of RFD in cases where the individual does not hold such a degree but is still the most experienced and qualified candidate within the organization. This requirement also restricts the pool of qualified individuals who may serve as acting or interim RFD as needed; the requested change will thus improve safety by providing the flexibility to designate the most qualified senior reactor operator as the RFD either permanently or temporarily.”

The licensee’s second proposed TS change would revise TS 6.2.5, to provide language and frequencies of audits consistent with the applicable ANSI/ANS standard, which the licensee states is necessary to address problems identified in an NRC Inspection Report and Notice of Violation dated July 5, 2018 (ADAMS Accession No. ML18178A092).

2.3.2 TS 6.1.3.1.b., "Reactor Facility Director"

The licensee proposes to add words to TS 6.1.3.1.b that would allow the selection of a candidate for RFD that does not have a four-year baccalaureate or higher degree in an engineering or scientific field, if the candidate has appropriate experience.

The current TS 6.1.3.1.b states:

b. Reactor Facility Director

At the time of appointment to this position, the Reactor Facility Director shall have six or more years of nuclear experience. The individual shall have a baccalaureate or higher degree in an engineering or scientific field. The degree may fulfill up to four years of experience on a one-for-one basis. The Reactor Facility Director shall have held a USNRC Senior Reactor Operator license on the AFRRRI reactor for at least one year before appointment to this position.

The proposed TS 6.1.3.1.b states:

b. Reactor Facility Director

At the time of appointment to this position, the Reactor Facility Director shall have six or more years of nuclear experience. The individual shall have a baccalaureate or higher degree in an engineering or scientific field. The degree may fulfill up to four years of experience on a one-for-one basis. The Reactor Facility Director shall have held a USNRC Senior Reactor Operator license on the AFRRRI reactor for at least one year before appointment to this position. Education and/or experience that is job-related may be substituted for a degree on a case-by-case basis.

Because the RFD is a Level 2 position at AFRRRI, per AFRRRI TS 6.1.1, "Structure," the NRC staff reviewed the proposed change against the guidance in ANSI/ANS-15.4-2016, Section 4.3, "Level 2." ANSI/ANS-15.4-2016 Section 4.3, "Level 2," states,

At the time of appointment to the position, the Level 2 person shall have a minimum of six years nuclear experience. The individual shall have a recognized baccalaureate or higher degree in an engineering or scientific field. The degree may fulfill up to four years of the six years of nuclear experience required. Education and or experience that is job-related may be substituted for a degree on a case-by-case basis. The individual shall receive appropriate facility-specific training based upon a comparison of the individual's background and abilities with the responsibilities and duties of the position. Because of the educational and experience requirements of the position, continued formal training may not be required. If this individual is also to be licensed, the individual shall meet the licensing requirements of the respective position and responsible authority.

Both versions, ANSI/ANS-15.4-2016 and ANSI/ANS-15.4-1988, allow the same flexibility with regard to the degree needed for the Level 2 position. The proposed change is consistent with the ANSI/ANS-15.4-2016 standard because the language to be added, "Education and/or experience that is job-related may be substituted for a degree on a case-by-case basis," is a direct quote from the standard. Like the standard, the addition allows experience to satisfy degree requirements in some instances. Also, the addition does not alter the TS 6.1.3.1.b requirement that the Level 2, "Reactor Facility Director shall have held a USNRC Senior Reactor Operator license on the AFRRRI reactor for at least one year before appointment to this position."

Based on its review, the NRC staff finds that the proposed change to the TS requirements for the RFD, adequately addresses technical background and facility knowledge requirements relevant to the position. The proposed TS continues to provide the necessary administrative controls relating to organization and management to assure safe reactor operations and adequate supervision of facility personnel. In addition, the proposed revision to TS 6.1.3.1.b is consistent with the ANSI/ANS-15.4-1988 guidance, referenced in NUREG-1537, and is consistent with the current standard, ANSI/ANS-15.4-2016, which the NRC staff uses to conduct its TS reviews. Therefore, the NRC staff finds that the proposed TS meets the 10 CFR 50.36(c)(5) requirement that TSs include adequate controls to assure operation of the facility in a safe manner and concludes that the proposed revision to the TS is acceptable.

2.3.3 TS 6.2.5, "Audit Function"

The licensee proposes to revise TS 6.2.5 to make the TS required audit frequencies consistent with the audit frequencies that are in the ANSI/ANS-15.1-2007 standard. Specifically, the proposed changes would change the frequencies of audits of three aspects of facility operation listed in TS 6.2.5, from annually, to biennially, for audits of:

- performance, training and qualifications of the operating staff,
- facility emergency plan and implementing procedures, and
- facility physical security plan.

The licensee also proposed to revise TS 6.2.5, to specify the required audit frequencies as being either annually or biennially in a parenthetical after each listed audit function for clarity. The licensee states that these changes are necessary to correct problems that resulted in the issuance of a Notice of Violation on July 5, 2018, and the licensee also states that this submittal completes the corrective action to which AFRRRI committed in its Notice of Violation reply letter dated August 1, 2018 (ADAMS Accession No. ML18227A143).

The current TS 6.2.5. states:

6.2.5. AUDIT FUNCTION

Audits of reactor facility operations shall be performed under the cognizance of the RRFSS, but in no case by the personnel responsible for the item audited. The audits shall be performed annually, not to exceed 15 months. A report of the findings and recommendations resulting from the audit shall be submitted to the AFRRRI Licensee within three months after the report has been received. Deficiencies uncovered that affect reactor safety shall immediately be reported to level one management. Audits may be performed by one or more individuals who need not be RRFSS members. These audits shall examine the operating records and the conduct of operations, and shall encompass the following:

- a. Conformance of facility operation to the Technical Specifications and the license;
- b. Performance, training, and qualifications of the reactor facility staff;
- c. Results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems, or methods of operation that affect safety;
- d. Facility emergency plan and implementing procedures;
- e. Facility Physical Security Plan;
- f. Any other area of facility operations considered appropriate by the RRFSS or the AFRRRI Licensee; and
- g. Reactor Facility ALARA Program. This program may be a section of the total AFRRRI program.

The proposed TS 6.2.5. states:

6.2.5. AUDIT FUNCTION

Audits of reactor facility operations shall be performed under the cognizance of the RRFSS, but in no case by the personnel responsible for the item audited. The audits shall be performed annually, not to exceed 15 months, or biennially, not to exceed 30 months. The audit frequency is indicated below for each item (in parenthesis). A report of the findings and recommendations resulting from the audit shall be submitted to the AFRRRI Licensee within three months after the report has been received. Deficiencies uncovered that affect reactor safety shall immediately be reported to level one management. Audits may be performed by one or more individuals who need not be RRFSS members. These audits shall examine the operating records and the conduct of operations, and shall encompass the following:

- a. Conformance of facility operation to the Technical Specifications and the license (annually);
- b. Performance, training, and qualifications of the reactor facility staff (biennially);
- c. Results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems, or methods of operation that affect safety (annually);
- d. Facility emergency plan and implementing procedures (biennially);
- e. Facility Physical Security Plan (biennially);
- f. Any other area of facility operations considered appropriate by the RRFSS or the AFRRRI Director (annually); and
- g. Reactor Facility ALARA Program. This program may be a section of the total AFRRRI program (annually).

The NRC staff finds that the proposed changes to the frequency of audits are consistent with the frequencies in ANSI/ANS-15.1-2007, with the exception that the frequency of audits of the physical security plan is not covered by the standard. The proposed change to TS 6.2.5.f. includes a change from the term "AFRRRI Licensee" to the term "AFRRRI Director." These terms are used interchangeably elsewhere in the TSs and therefore the change in terminology does not affect the practical meaning of TS 6.2.5.f. or the TS's assurance that the facility will be operated in a safe manner.

Section 6.2.4 of ANSI/ANS-15.1-2007, the text of which is the same as the 1990 version referenced in NUREG-1537, Part 1, specifies the minimum acceptable frequency for audits as:

annually for

- conformance of facility operation to the TS and license
- results of actions taken to correct deficiencies occurring in facility equipment, structure, systems, or methods of operation that affect reactor safety

and biennially for

- retraining and requalification program for the operating staff
- reactor facility emergency plan and implementing procedures.

In addition, ANSI/ANS-15.1-2007, 6.2.4, defines once every other calendar year as an interval between audits not to exceed 30 months. Based on its review, the NRC staff finds that the proposed TS changes appropriately differentiate between those items that are required to be done annually and those that require audit biennially, and that the proposed TS continues to provide the necessary administrative controls to assure safe reactor operations and protection of facility personnel and members of the public.

The NRC staff compared the proposed frequencies to those specified in Section 6.2.4 of ANSI/ANS-15.1-2007. The NRC staff finds that the proposed frequencies for audits of the retraining and requalification program for the operating staff as well as the frequency for audits

of the reactor facility emergency plan and implementing procedures are consistent with the guidance in that standard, which is comparable to a biennial period. In addition, the guidance in ANSI/ANS-15.1-2007, paragraph 6.2.4, is unchanged from the 1990 version of this ANSI/ANS standard referenced in NUREG-1537. The staff finds that the proposed biennial frequency for review of the AFRRRI Emergency Plan is consistent with the frequency for review specified in the Emergency Plan, Section 8.3. The staff also finds that the proposed biennial audit frequency for the Facility Physical Security Plan is consistent with the AFRRRI Physical Security Plan and is common among research reactors licensed by the NRC. Therefore, the NRC staff finds that the changes meet the 10 CFR 50.36(c)(5) requirements and concludes that the proposed revisions to TS 6.2.5 are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment changes administrative requirements in Section 6 of the TS, and thus involves changes to recordkeeping, reporting, or administrative procedures or requirements related to organizational and procedural matters. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10)(ii). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

4.0 CONCLUSION

The NRC staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Cindy K. Montgomery

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