

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-170; NRC-2012-0272]**

**Armed Forces Radiobiology Research Institute**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** License renewal; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) issued a renewal of Facility Operating License No. R-84, held by the Armed Forces Radiobiology Research Institute (AFRRI or the licensee) for the continued operation of its AFRRI Training, Research, Isotopes Production, General Atomics (TRIGA) reactor for an additional 20 years.

**DATE:** The Renewed Facility Operating License No. R-84 is effective on November 30, 2016.

**ADDRESSES:** Please refer to Docket ID **NRC-2012-0272** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0272**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection

at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). For the convenience of the reader, the ADAMS accession numbers are provided in a table in the “Availability of Documents” section of this document.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Cindy K. Montgomery, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3398; e-mail: [Cindy.Montgomery@nrc.gov](mailto:Cindy.Montgomery@nrc.gov).

#### **SUPPLEMENTARY INFORMATION:**

The NRC has issued renewed Facility Operating License No. R-84, held by the licensee, which authorizes continued operation of the AFRRI TRIGA reactor, located in Bethesda, Maryland. The AFRRI TRIGA reactor is a heterogeneous pool-type, natural convection, light-water cooled and shielded reactor. The renewed license authorizes the licensee to operate the AFRRI TRIGA reactor up to a steady-state power level of 1.1 megawatts thermal with pulsing capability using reactivity insertions up to 2.45%  $\Delta k/k$ . The renewed Facility Operating License No. R-84 will expire 20 years from its date of issuance, November 30, 2016.

The renewed facility operating license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission’s rules and regulations. The Commission has made appropriate findings as required by the Act and the

Commission's regulations in Chapter I of title 10 of the *Code of Federal Regulations* (10 CFR), and sets forth those findings in the renewed facility operating license. The agency afforded an opportunity for hearing in the Notice of Opportunity for Hearing published in the *Federal Register* on November 15, 2012 (77 FR 68155). The NRC received no request for a hearing or petition for leave to intervene following the notice.

The NRC staff prepared a Safety Evaluation Report related to the renewal of Facility Operating License No. R-84 and concluded, based on that evaluation, that the licensee can continue to operate the facility without endangering the health and safety of the public. The NRC staff also prepared an Environmental Assessment and Finding of No Significant Impact regarding the renewal of the facility operating license, noticed in the *Federal Register* on November 25, 2016 (81 FR 85268), and concluded that renewal of the facility operating license will not have a significant impact on the quality of the human environment.

### **Availability of Documents**

The documents identified in the following table are available to interested persons through ADAMS accession numbers, as indicated.

<b>Document</b>	<b>ADAMS Accession No.</b>
Armed Forces Radiobiology Research Institute Renewal of Operating License R-84 for 1 MW TRIGA Research Reactor (June 24, 2004)	ML041800067
Reactor Operator Requalification Program for Armed Forces Radiobiology Research Institute (June 24, 2004)	ML041800071
Environmental Report for Armed Forces Radiobiology Research Institute (June 24, 2004)	ML041800068
Safety Analysis Report for Armed Forces Radiobiology Research Institute (AFRRI) (June 24, 2004) (redacted version)	ML101650415
Safety Analysis Report Chapters 4 and 13 for Armed Forces Radiobiology Research Institute (AFRRI) (March 4, 2010) (redacted version)	ML101650422
Request for Additional Information Regarding Financial Qualifications for the License Renewal Review (August 13, 2010)	ML102310075
Armed Forces Radiobiology Research Institute Response to Request for Additional Information dated July 19, 2010 Re: Technical Specifications (September 27, 2010) (redacted version)	ML110260024
Letter Re: Armed Forces Radiobiology Research Institute-Request for Additional Information Regarding the Application for License Renewal (TAC No. ME1587) (October 21, 2010)	ML103070121
Request for Additional Information Re: License Amendment, Separation of Byproduct Material (December 15, 2010)	ML103560456
Request for Additional Information Regarding the Application for License Renewal (February 7, 2011)	ML110460687
Armed Forces Radiobiology Research Institute - Response to Request for Additional Information Regarding the Application for License Renewal (June 20, 2011)	ML112232300
Response to Request for Additional Information Regarding the Application for Renewal of License R-84 (September 6, 2011)	ML11269A030
Armed Forces Radiobiology Research Institute - Response to NRC Request for Additional Information Questions 14-41 and Resubmittal of Technical Specifications (October 20, 2011) (redacted version)	ML113410120
Response to Request for Additional Information Regarding the Application for License Renewal (TAC No. ME1587) (November 28, 2011)	ML11341A133

Armed Forces Radiobiology Research Institute, Technical Responses to NRC Request for Additional Information Re: License Renewal (TAC No. ME1587) (November 28, 2011) (redacted version)	ML113460085
Request For Additional Information Regarding The Application For License Renewal (TAC No. ME1587) (April 20, 2012)	ML12122A146
Response to Request for Additional Information Regarding the Application for License Renewal (TAC NO. ME1587) (January 17, 2012)	ML12032A054
Request for Additional Information Regarding the Application for License Renewal (September 21, 2012)	ML12272A303
Armed Forces Radiobiology Research Institute - Response to Request for Additional Information Regarding the Application for License Renewal (TAC ME1587) (June 28, 2013)	ML13182A084
US Dept of Defense, Uniformed Services University of the Health Sciences - Submittal of revised Technical Specifications, Docket 50-170 (August 27, 2014)	ML13254A064
Request for Additional Information Regarding the Renewal of Facility Operating License No. R-84 for the AFRRRI TRIGA Reactor Facility (December 4, 2014)	ML14349A319
Letter from Stephen L. Miller Enclosing Revision of the Technical Specifications for the Armed Forces Radiobiology Research Institute Reactor (license R-84, docket 50-170) (March 30, 2015)	ML15093A099
Request for Additional Information Regarding the Application for License Renewal (February 9, 2016)	ML16040A310
Submittal of Technical Specifications for the Armed Forces Radiobiology Research Institute Facility (February 26, 2016)	ML16060A210
U.S. Fish and Wildlife Service , Armed Forces Radiobiology Research Institute TRIGA Research Reactor Proposed License Renewal, IPaC Trust Resources Report, (August 5, 2016)	ML16218A224
U.S. Fish and Wildlife Service, Endangered Species Consultations Frequently Asked Questions, (July 15, 2013)	ML16120A505
Response to NRR Request for Additional Information Regarding the Application for License Renewal for AFRRRI Facility (August 5, 2016)	ML16232A164
US Department of Defense, Armed Forces Radiobiology Research Institute (AFRRRI), Submittal of Request for Additional Information Regarding the Application for License Renewal (TAC No. ME1587) (September 12, 2016)	ML16258A463
Reactor Operator Requalification Program for the AFRRRI TRIGA Reactor Facility (September 12, 2016)	ML16258A464

Request for Additional Information Regarding the Application for License Renewal (TAC No. ME1587) (September 21, 2016)	ML16267A447
AFRRI Email Regarding License Renewal Application (September 26, 2016)	ML16270A541
AFRRI Email Response to Request for Additional Information for License Renewal (September 27, 2016)	ML16271A536
Letter from Stephen L. Miller Enclosing Revision of the Technical Specifications for the Armed Forces Radiobiology Research Institute Reactor (September 30, 2016)	ML16278A111
US Armed Forces Radiobiology Research Institute Letter Regarding Review of Draft License R-84 (November 16, 2016)	ML16321A461
Armed Forces Radiobiology Research Institute - Issuance of Renewed Facility Operating License No. R-84 for the Armed Forces Radiobiology Research Institute Research Reactor (November 30, 2016)	ML16077A303

Dated at Rockville, Maryland, this 1<sup>st</sup> day of December, 2016.

For the Nuclear Regulatory Commission

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