



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

March 3, 2020

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

SUBJECT: ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE – U.S. NUCLEAR  
REGULATORY COMMISSION NOTICE OF VIOLATION

Dear Captain Wooten:

This letter refers to the event reported to the U.S. Nuclear Regulatory Commission (NRC) Operations Center (Event No. 54349) on October 24, 2019, involving a lost fission chamber at the Armed Forces Radiobiology Research Institute (AFRRI) reactor facility. In response to this event, the NRC staff conducted a reactive inspection at the AFRRI reactor facility on November 14, 2019. The results of the inspection were discussed with the former AFRRI Director, Captain John Gilstad, and members of his staff on November 14, 2019. In addition, you submitted a written report to the NRC, dated November 22, 2019, which presented the facts and circumstances surrounding the lost fission chamber. Based on the results of the inspection, the NRC staff had identified an apparent violation regarding this incident which would be tracked as an unresolved item until January 22, 2020, at which time, this issue would be further evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at

<https://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

The NRC staff has now determined that a Severity Level IV violation of NRC requirements has occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the reactive inspection report, dated December 30, 2019. However, the reactive inspection report is nonpublic due to the security-related information contained within the report. This violation is being cited in the Notice because it constitutes a failure to meet regulatory requirements that has more than minor safety significance.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with Title 10 of the *Code of Federal Regulations* Section 2.390, "Public inspections, exemptions, requests for withholding," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System, accessible from the NRC Web site at <https://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

D. Wooten

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If you have any questions concerning this matter, please contact Mr. Michael Takacs at (301) 415-2042 or by e-mail at [Michael.Takacs@nrc.gov](mailto:Michael.Takacs@nrc.gov).

Sincerely,

**/RA/**

Travis L. Tate, Chief  
Non-Power Production and Utilization  
Facility Oversight Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

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

Enclosure:  
As stated

cc: w/enclosure: See next page

cc:

Director, Maryland Office of Planning  
301 West Preston Street  
Baltimore, MD 21201

Montgomery County Executive  
101 Monroe Street, 2nd Floor  
Rockville, MD 20850

Environmental Program Manager III  
Radiological Health Program  
Air & Radiation Management Adm.  
Maryland Dept. of the Environment  
1800 Washington Blvd., Suite 750  
Baltimore, MD 21230-1724

Director  
Air & Radiation Management Adm.  
Maryland Dept of the Environment  
1800 Washington Blvd., Suite 710  
Baltimore, MD 21230

Test, Research and Training  
Reactor Newsletter  
Attention: Ms. Amber Johnson  
Dept of Materials Science and Engineering  
University of Maryland  
4418 Stadium Drive  
College Park, MD 20742-2115

Manager  
Nuclear Programs  
Maryland Department of Natural Resources  
Tawes B-3  
Annapolis, MD 21401

Mr. Walter Dale Tomlinson  
Reactor Facility Director  
Armed Forces Radiobiology  
Research Institute  
4555 South Palmer Road, Building 42  
Bethesda, MD 20889-5648

SUBJECT: ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE – U.S. NUCLEAR  
REGULATORY COMMISSION NOTICE OF VIOLATION  
DATED: MARCH 3, 2020

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**ADAMS Accession No.: ML20023C341**                      **\*concurrence via e-mail**                      **NRC-002**

OFFICE	NRR/DANU/UNPO/SS*	NRR/DANU/UNPO/LA*	NRR/DANU/UNPO/BC
NAME	MTakacs	NParker	TTate
DATE	1/27/2020	1/27/2020	3/3/2020

**OFFICIAL RECORD COPY**

## NOTICE OF VIOLATION

Armed Forces Radiobiology  
Research Institute

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

Following a U.S. Nuclear Regulatory Commission (NRC) reactive inspection conducted November 14, 2019, a violation of NRC requirements has been identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1801, "Security of stored material," requires that the licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

Contrary to the requirement referenced above, the licensee failed to secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. Specifically, the licensee reported to the NRC on October 24, 2019, that a fission chamber containing approximately 0.27 microcuries of uranium-235 (serial number 14K024C5) was missing. Furthermore, the licensee, using historical records and physical searches, could not determine the location or final disposition of this fission chamber.

This is a Severity Level IV violation (Section 6.7 of the NRC Enforcement Policy).

Pursuant to the provisions of 10 CFR 2.201, "Notice of violation," the Armed Forces Radiobiology Research Institute is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (Agencywide Documents Access and Management System), accessible from the NRC Web site at <https://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or Safeguards Information (SGI) so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the

Enclosure

bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (b) to support a request for withholding confidential commercial or financial information). If SGI is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

In accordance with 10 CFR 19.11, "Posting of notices to workers," you may be required to post this Notice within two working days of receipt.

Dated this 3<sup>rd</sup> day of March