January 14, 2015

Dr. Kelly Jordan
Director of the University of Florida Training Reactor
Nuclear and Radiological Engineering Department
P. O. Box 11830
University of Florida
Gainesville, FL 32611

SUBJECT: UNIVERSITY OF FLORIDA – NRC SAFETY INSPECTION REPORT NO. 50-083/2014-202

Dear Dr. Jordan:

From December 15-18, 2014, the U.S. Nuclear Regulatory Commission (NRC or the Commission) completed an inspection at your University of Florida Training Reactor facility. The enclosed report documents the inspection results, which were discussed with you, Mr. Brian Shea, Reactor Manager; and other members of your staff on December 18, 2014.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified. No response to this letter is required.

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 (if any) will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (Agencywide Documents Access and Management System (ADAMS)). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact Mr. Ossy Font at (301) 415-2490 or electronic mail at Ossy.Font@nrc.gov.

Sincerely,

/RA/

Kevin Hsueh, Chief
Research and Test Reactors Oversight Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-083
License No. R-56

Enclosure:
Inspection Report No. 50-083/2014-202

cc w/encl: See next page

University of Florida Docket No. 50-083

Administrator
Department of Environmental Regulation
Power Plant of Siting Section
State of Florida
2600 Blair Stone Road
Tallahassee, FL 32301

State Planning and Development Clearinghouse
Office of Planning and Budgeting
Executive Office of the Governor
The Capitol Building
Tallahassee, FL 32301

Chief, Bureau of Radiation Control
Department of Health
4052 Bald Cypress Way
Tallahassee, FL 32399-1741

Test, Research and Training
Reactor Newsletter
Director of Nuclear Facilities
University of Florida
202 Nuclear Science Building
Gainesville, FL 32611-8300

Brian Shea, Reactor Manager
Nuclear & Radiological Engineering Dept
202 Nuclear Sciences Center
P.O. Box 118300
University of Florida
Gainesville, FL 32611-8300

Cammy Abernathy, Dean
University of Florida College of Engineering
PO Box 116550
Gainesville, FL 32611

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DATE	1/13/2015	1/14/2015

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U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No:	50-083
Report No:	50-083/2014-202
Licensee:	University of Florida
Facility:	University of Florida Training Reactor
Location:	Gainesville, Florida
Dates:	December 15-18, 2014
Inspectors:	Ossy Font Patrick Isaac
Approved by:	Kevin Hsueh, Chief Research and Test Reactors Oversight Branch Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

Enclosure

EXECUTIVE SUMMARY

University of Florida
University of Florida Training Reactor
Inspection Report No. 50-083/2014-202

The primary focus of this announced safety inspection was the onsite review of selected aspects of the University of Florida's (the licensee's) Class II training reactor safety program including: procedures, requalification training, experiments, design changes, committee audits and reviews, maintenance logs and records, and fuel handling since the last U. S. Nuclear Regulatory Commission (NRC) inspection of these areas. The licensee's program was acceptably directed toward the protection of public health and safety, and in compliance with NRC requirements.

Procedures

- The program for changing, controlling, and implementing facility procedures was acceptably maintained as required by the Technical Specifications and the applicable procedures.

Requalification Training

- Operator requalification was conducted as required by the Operator Requalification Plan

Experiments

- The program for reviewing and conducting experiments satisfied procedural and Technical Specification requirements.

Design Changes

- The review, evaluation, and documentation of changes to the facility satisfied NRC requirements.

Committee Audits and Reviews

- The review and audit program was being conducted acceptably by the Reactor Safety Review Subcommittee as stipulated in Technical Specifications Section 6.2.5.

Maintenance Logs and Records

- Maintenance logs, records, reviews, and performance satisfied technical specification and procedure requirements.

Fuel Handling

- Fuel movements and inspections were conducted in accordance with technical specification and procedural requirements.

REPORT DETAILS

Summary of Facility Status

The University of Florida's (the licensee's) 100 kilowatt modified Argonaut training reactor continued to be shutdown due to piping repair, refueling, and design of a new digital console.

1. Procedures

a. Inspection Scope (IP 69001)

The inspector reviewed the following to ensure that the requirements of Technical Specifications (TS) 6.3 were being met concerning written procedures:

- Records of changes and temporary changes to procedures
- Reactor Safety Review Subcommittee (RSRS) meeting minutes for 2012 and 2013
- University of Florida Training Reactor (UFTR) Operating Procedure 0.1, "Operating Document Controls," Rev. 6, approval dated October 28, 2014
- UFTR Operating Procedure A.1, "Pre-Operational Checks," Rev. 19, approval dated October 24, 2014
- UFTR Operating Procedure E.4, "UFTR Nuclear Instrumentation Calibration Check," Rev. 4, approval dated November 9, 2005

b. Observations and Findings

Procedures were available for the activities and items required by TS 6.3. Facility procedures were being revised as needed. The inspectors verified that when modifications were made to the facility, these changes were properly captured in the daily and weekly preoperational checkouts. The changes were also controlled and approved the RSRS as required.

c. Conclusion

The inspectors determined that the procedural changes, control, and implementation program were acceptably maintained as required by TS.

2. Requalification Training

a. Inspection Scope (IP 69001)

To verify that the licensee was complying with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55 to implement and maintain an operator requalification program, the inspectors reviewed the following:

- Operator training records from 2013 to present

- Operator written examination records from 2013 to present
- UFTR Reactor Operator Requalification Program Training Exam – Biennial Comprehensive Exam, dated September 18,2013
- UFTR Form 0.8A, "Requalification Training Program Attendance Record"
- UFTR Form 0.8B, "Requalification and Recertification Training Program Documentation"
- UFTR Requalification and Recertification Training Program Plan, dated August 4, 2014

b. Observations and Findings

There were two senior reactor operators (SROs) licensed to operate the UFTR research reactor and as of the date of the inspection, both operators were enrolled in the NRC-approved requalification training program. The inspectors noted that the required biennial written requalification exams had not yet been administered. The inspectors noted that the last biennial comprehensive written examination was administered on September 28, 2013. Due to extended shutdown, several operational requirements within the Requalification Plan had been postponed. The licensee discussed a substitute for the requirement to conduct an annual operational exam.

The inspectors informed the licensee that IFI 50-083/2013-201-01 which was opened during the inspection conducted from February 11-14, 2013, to track licensee's actions to ensure facility operators are proficient prior to restart, will remain opened.

c. Conclusion

Operator requalification was being completed as required by the licensee's operator requalification program.

3. Experiments

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to assure compliance with TS 3.5 and 6.4:

- Experiment logs and records for the year 2007 and 2008
- UFTR Annual Report for period 2011-2012 and 2012-2013
- UFTR Operating Procedure A.5, "Experiments," Rev. 5, approval dated October 13, 2006
  - UFTR Form SOP-A.5A, "Request for UFTR Operation (Run Request Form)"

b. Observations and Findings

The inspectors noted that no experiments have been performed since 2007 due to the extended shutdown status. Experiment logs and records were reviewed to verify this, as well as the most recent annual reports and RSRS meeting minutes.

c. Conclusion

Due to extended shutdown, no experiments have been performed since 2007. The program for reviewing and conducting experiments satisfied TS and procedural requirements.

4. Design Change Functions

a. Inspection Scope (IP 69001)

The inspectors reviewed selected aspects of the following to ensure that changes, tests, and experiments were being reviewed as required by 10 CFR 50.59:

- RSRS meeting minutes for 2013 and 2014
- UFTR Annual Report for period 2011-2012 and 2012-2013
- UFTR Operating Procedure 0.3, "Control and Documentation of UFTR Modifications, " Rev. 1, approval dated November 2, 1999, most recent TCN dated September 2003
  - UFTR Form SOP-0.3A, "QA (Quality Assurance) Document Checklist for Modification Packages"
- UFTR Operating Procedure 0.4, "10 CFR 50.59 Screening and Evaluation," Rev. 3, approval dated October 21, 2011
  - UFTR Form SOP-0.4A, "10 CFR 50.59 Applicability"
  - UFTR Form SOP-0.4B, "10 CFR 50.59 Screening"
  - UFTR Form SOP-0.4C, "10 CFR 50.59 Evaluation"

b. Observations and Findings

The inspectors noted that several changes at the facility have been made, including the installation of a high plume exhaust system for argon-41 dispersion and the confinement holes for HVAC system.

The inspectors reviewed the 10 CFR 50.59 evaluations and corresponding design change packages reviewed and approved by the RSRS and determined that they were focused on safety and met TS and UFTR procedure requirements.

c. Conclusion

The program in place for changes, tests, and experiments was being implemented as required by 10 CFR 50.59. Reviews of evaluations were adequately performed by the RSRS.

5. Committees, Audits, and Reviews

a. Inspection Scope (IP 69001)

The inspectors reviewed the following to ensure that the audits and reviews stipulated in TS Section 6.2.5 were being completed:

- Membership of the UFTR Reactor Safety Review Subcommittee
- UFTR Reactor Safety Review Subcommittee (RSRS) meeting minutes for the past two years
- UFTR Annual Report for period 2011-2012 and 2012-2013

b. Observations and Findings

The inspectors reviewed the RSRS meeting minutes for the past two years. The inspectors verified that the RSRS met at least quarterly as required by Section 6.2.5 of the facility TS, though noted that they met more frequently due to modification and restart planning.

Since the last inspection, all required audits of reactor facility activities and reviews of programs, procedures, equipment, and proposed tests or experiments had been completed and documented as required. The audits were completed by designated individuals and reviewed by the RSRS.

c. Conclusion

RSRS review and audit functions required by the TS were being completed and documented.

6. Maintenance Logs and Records

a. Inspection Scope (IP 69001)

To verify that the licensee's operational and maintenance activities have been conducted consistent with regulatory requirements, the inspector reviewed selected aspects of:

- UFTR Maintenance Log Register
- UFTR Work Assignment and Maintenance Log pages for 2012, 2013, and to date in 2014
- UFTR Annual Report for period 2011-2012 and 2012-2013
- Select UFTR Operating Log Records from March 2014 to present

- UFTR SOP-0.2, “Control of Maintenance,” Rev. 5, dated September 2003
- Select UFTR Work Assignment and Maintenance Log

b. Observations and Findings

The inspector reviewed the maintenance records for scheduled and unscheduled preventive and corrective maintenance activities since last inspection. The maintenance records indicated that routine and preventive maintenance were well controlled and documented. When maintenance items were completed, system operational checks were performed to ensure that affected systems were operable before returning them to service.

c. Conclusion

Maintenance logs, records, reviews, and performance satisfied TS and procedure requirements.

7. Fuel Handling

a. Inspection Scope (IP 69001)

To ensure that the licensee was following the requirements specified in TS 3.7, 4.2.7, and 5.8, the inspectors reviewed selected aspects of the following:

- Fuel handling and training records for 2010
- UFTR Operating Procedure C.1 to C.7

b. Observations and Findings

The inspectors determined that the reactor has not operated since 2010 and fuel has not been used, moved, or inspected since then.

c. Conclusion

Fuel movements and inspections were conducted in accordance with TS and procedural requirements.

8. Exit Meeting Summary

The inspectors reviewed the inspection results with members of licensee management and UFTR staff at the conclusion of the inspection on December 18, 2014. The licensee acknowledged the findings and did not identify as proprietary any of the material provided to or reviewed by the inspectors during the inspection.

PARTIAL LIST OF PERSONS CONTACTED

M. Berglund	Operations and Maintenance Supervisor
D. Cronin	Licensing Engineer
K. Jordan	Facility Director
B. Shea	Reactor Manager

INSPECTION PROCEDURE USED

IP 69001	Class II Research and Test Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

Open

50-083/2013-201-01	IFI	Review the licensee's actions to ensure facility operators are proficient prior to restart.

LIST OF ACRONYMS USED

10 CFR	Title 10 of the *Code of Federal Regulations*
ADAMS	NRC's Agencywide Documents Access and Management System
E-Plan	Emergency Plan
HVAC	Heating, Ventilating, and Air Conditioning
IFI	Inspector Follow-up Item
IP	Inspection Procedure
NRC	U.S. Nuclear Regulatory Commission
QA	Quality Assurance
Rev.	Revision/Revised
RSRS	Reactor Safety Review Subcommittee
SOP	Standard Operating Procedure
SRO	Senior Reactor Operator
TCN	Temporary Change Notice
TS	Technical Specifications
UFTR	University of Florida Training Reactor