

March 12, 2008

Dr. William G. Vernetson
Director of Nuclear Facilities
Department of Nuclear and
Radiological Engineering
P. O. Box 11830
University of Florida
Gainesville, FL 32611

SUBJECT: NRC INSPECTION REPORT NO. 50-083/2008-201

Dear Dr. Vernetson:

On February 25-28, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your University of Florida Training Reactor facility. The enclosed report documents the inspection results, which were discussed on February 28, 2008, with you and Don Munroe, University of Florida Radiation Control Officer.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations of activities in progress. Based on the results of this inspection, no safety concerns or noncompliances with NRC requirements were identified. No response to this letter is required.

In accordance with Section 2.390, "Public inspections, exemptions, and requests for withholding," of Title 10 of the *Code of Federal Regulations*, 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 Publicly Available Records component of NRC's 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 Craig Bassett at 404-358-6515.

Sincerely,

/RA/

Johnny H. Eads, Jr., Branch Chief
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

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

Enclosure: NRC Inspection Report No. 50-083/2008-201
cc w/enclosure: Please see next page

University of Florida

Docket No. 50-083

cc:

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ACCESSION NO.: ML080670348

TEMPLATE #: NRR-106

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DATE	03/06/08	03/07/08	3/12/08

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

Docket No: 50-083

License No: R-56

Report No: 50-083/2008-201

Licensee: University of Florida

Facility: University of Florida Training Reactor

Location: Gainesville, FL

Dates: February 25-28, 2008

Inspector: Craig Bassett

Approved by: Johnny H. Eads, Branch Chief
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

University of Florida
University of Florida Training Reactor
Inspection Report No.: 50-083/2008-201

The primary focus of this routine, announced inspection was the onsite review of selected aspects of the licensee's Class II research reactor safety program including: organizational structure and staffing, review and audit and design change functions, procedures, radiation protection, effluent and environmental monitoring, and transportation of radioactive materials since the last NRC inspection of these areas. The licensee's programs were acceptably directed toward the protection of public health and safety, and in compliance with NRC requirements.

Organizational Structure and Staffing

- The organizational structure was consistent with the requirements outlined in the Technical Specifications although there was currently no Reactor Manager. Staffing at the facility was at the minimum level required in Technical Specifications Section 6.2.3.

Review and Audit and Design Change Functions

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

Procedures

- Review, revision, control, and implementation of facility procedures satisfied Technical Specification requirements.

Radiation Protection Program

- Surveys were being completed and documented acceptably to permit evaluation of the radiation hazards present.
- Postings met the regulatory requirements specified in 10 CFR Parts 19 and 20.
- Appropriate dosimeters were being worn by staff members as required and doses were well within the NRC's regulatory limits.
- Radiation monitoring equipment was being maintained and calibrated as required.
- The Radiation Protection Program being implemented by the licensee satisfied regulatory requirements.

Effluent and Environmental Monitoring

- Effluent monitoring satisfied procedural and regulatory requirements and releases were within the specified regulatory and Technical Specification limits.

Transportation of Radioactive Materials

- Transfer of radioactive material from the University of Florida Training Reactor to the State of Florida (Agreement State) License was completed and documented in accordance with licensee procedural requirements.

REPORT DETAILS

Summary of Plant Status

The licensee's one hundred kilowatt modified Argonaut-UTR type research and test reactor continued to be operated in support of education, operator training, surveillance, contract or service work, and experiments. During the inspection, the reactor was not operated.

1. Organizational Structure and Staffing

a. Inspection Scope (Inspection Procedure [IP] 69001)

The inspector reviewed selected aspects of the following regarding the licensee's organization and staffing to ensure that the requirements of Sections 6.2.1 - 6.2.4 of Technical Specifications (TS), Amendment No. 25, dated January 12, 2006, were being met:

- current staff qualifications
- management responsibilities as outlined in the TS
- organizational structure for the University of Florida Training Reactor (UFTR)
- selected portions of the UFTR Operating Log pages for the past year through the present

b. Observations and Findings

The operations organizational structure had not functionally changed since the last NRC inspection (refer to NRC Inspection Report 50-083/2007-201). The operations staff, which was comprised of two Senior Reactor Operators, included the Facility Director and one person who worked part-time at the reactor. It was noted that there was currently no Reactor Manager employed at the facility. Three other students also worked part-time at the facility and functioned as laboratory (lab) and/or reactor facility technicians. TS Section 6.2.4 specified that UFTR personnel were required to meet the training and qualification criteria contained in the ANSI/ANS (American National Standards Institute) Standard 15.4-1977, "Standards for Selection and Training of Personnel for Research Reactors." The inspector verified that the education, training, and experience of the operations staff met ANSI/ANS 15.4-1977 requirements. Staffing, during reactor operation, was the minimum required. It was also noted that, although the lab/reactor facility technicians provided assistance in the area of radiation protection, UFTR staff continued to receive other health physics support from the University of Florida Radiation Control Officer (RCO) and his staff in the Environmental Health and Safety (EH&S) Department. Review of records verified that management responsibilities were administered as required by the TS and applicable procedures.

c. Conclusions

The organizational structure was consistent with the requirements outlined in the Technical Specifications although there was currently no Reactor Manager. Staffing at the facility was at the minimum level required in Technical Specifications Section 6.2.3.

2. Review and Audit and Design Change Functions

a. Inspection Scope (IP 69001)

In order to verify that the licensee had established and conducted reviews and audits as required in TS Section 6.2.5, the inspector reviewed selected aspects of:

- facility design changes and records for the past year
- Reactor Safety Review Subcommittee meeting minutes for 2006 and 2007
- Reactor Safety Review Subcommittee (RSRS) Executive Committee meeting minutes for 2006 and 2007
- safety review and audit records for the past two years and licensee responses to the reviews and audits
- UFTR Standard Operating Procedure (SOP)-0.1, "Operating Document Controls," Revision (Rev.) 4, dated June 2007
- UFTR SOP-0.2, "Control of Maintenance," Rev. 5, dated September 2003 and the latest Temporary Change Notice (TCN) dated November 2005
- UFTR SOP-0.3, "Control of Documentation of UFTR Modifications," Rev. 1, dated October 1999 and the latest TCN dated September 2003
- UFTR SOP-0.4, "10 CFR 50.59 Evaluation and Determination," Rev. 2, dated July 2000 and the latest TCN dated September 2003
- UFTR SOP-0.5, "UFTR Quality Assurance Program," Rev. 3, dated February 2003 and the latest TCN dated June 2007
- UFTR Form SOP-0.2A, "UFTR Maintenance Log Page," Rev. 5, dated September 2003
- UFTR Form SOP-0.3A, "QA Document Checklist for Modification Packages," Rev. 1, dated October 1999
- UFTR Form SOP-0.4A, "Unreviewed Safety Question (10 CFR 50.59) Evaluation and Determination," Rev. 2, dated July 2000
- UFTR Form SOP-0.4B, "Supporting Material for 10 CFR 50.59 Determination," Rev. 2, dated July 2000
- UFTR Form SOP-0.5E, "Annual QA Audit Checklist," Rev. 3, dated February 2003 and the latest TCN dated November 2005

b. Observations and Findings

(1) Review and Audit Functions

The RSRS and the RSRS Executive Committee met on numerous occasions during the period from January 2006 to December 2007. At least one meeting was held each quarter at intervals not to exceed four months as required by TS Section 6.2.5 (2). Committee membership satisfied the charter requirements stipulated in the TS. Review of the meeting minutes indicated that the committee provided guidance and direction to ensure suitable oversight of reactor operations. The RSRS minutes and audit records also showed that safety reviews and individual audits had been completed at the required frequency and submitted to the Dean of the College of Engineering within three months of completion for the functional areas specified by TS Section 6.2.5(4). The audits appeared to be comprehensive and well documented. The inspector noted that the licensee took appropriate corrective actions in response to the audit findings when needed. Committee records documented that procedure changes were reviewed as required as well.

(2) Design Change Functions

The inspector reviewed the modification package checklists, 10 CFR 50.59 Evaluation and Determination forms, and corresponding design change packages of selected changes for 2007. From these reviews, the inspector determined that the evaluations had adequate supporting documentation and information. Additionally, the inspector found that the 10 CFR 50.59 reviews and approvals were focused on safety and met TS and UFTR procedure requirements. Post installation verification testing of systems or equipment that had been changed was completed as required. Procedure and drawing changes were included in the change packages and were consistent with TS and UFTR requirements for facility changes. None of the changes posed a safety question or required a change to the TS.

c. Conclusions

Audits and reviews were being conducted by the RSRS in accordance with the requirements specified in TS Section 6.2.5. The licensee's design change program was being implemented as required.

3. Procedures

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to ensure that the requirements of TS Section 6.3 were met:

- administrative controls for changing procedures
- records of changes and temporary changes to procedures
- RSRS meeting minutes from January 2006 through December 2007
- UFTR SOP-0.1, "Operating Document Controls," Rev. 4, dated June 2007
- UFTR SOP-0.5, "UFTR Quality Assurance Program," Rev. 3, dated February 2003 and the latest TCN dated June 2007
- UFTR Form SOP-0.1A, "Cover Sheet/Change Request Form," Rev. 4, dated June 2007
- UFTR Form SOP-0.1C, "Review Standard," Rev. 4, dated June 2007

b. Observations and Findings

Procedures were available for those tasks and items required by TS Section 6.3. The procedures provided adequate guidance for the conduct of reactor and other operations. The inspector verified that the facility procedures were being reviewed biennially as required by procedure and were revised as needed.

The inspector reviewed the process used to make changes and temporary changes to facility procedures. The licensee implemented the change, review, and approval process by use of administrative procedures UFTR SOP-0.1 and -0.5. The changes and temporary changes had been controlled, and reviewed and approved by the RSRS as required.

The inspector reviewed training records and interviewed the staff, and determined that the training of personnel on procedures and subsequent changes to procedures was effective. The inspector determined that use of, and adherence to, procedures was acceptable.

c. Conclusions

The inspector determined that the procedural change, control, and implementation program was acceptably maintained as required by TS and the applicable procedures.

4. Radiation Protection Program

a. Inspection Scope (IP 69001)

The inspector reviewed the following to verify compliance with 10 CFR Parts 19 and 20 and TS Sections 3.4.1 and 4.2.4:

- UFTR facility dosimetry records for 2006 and 2007
- University of Florida "Radiation Control Guide," last revised December 1999
- radiation and contamination survey records for 2007 through the date of the inspection
- University of Florida "Radiation Safety Short Course Study Guide," last issued August 1999
- selected University of Florida (UF) Radiation Control Committee meeting minutes for 2006 and 2007
- calibration and periodic check records for selected radiation monitoring instruments documented on the applicable forms for 2006, 2007, and to date in 2008
- "Radiation Worker Instructions – Training Manual," University of Florida Training Reactor Facilities, Nuclear and Radiological Engineering Department, last issued February 2006
- ALARA Policy as outlined the "University of Florida Training Reactor Facility As Low As Reasonably Achievable (ALARA) Program," Rev. 1, dated August 2002
- 3rd through 4th Quarter ALARA Reports for 2006 and 1st through 3rd Quarter ALARA Reports for 2007 of the UF Radiation Control and Radiological Services Department for the Radiation Control Committee
- UFTR SOP-D.1, "UFTR Radiation Protection and Control," Rev. 5, dated December 1993 and the latest TCN dated October 2001
- UFTR SOP-D.2, "Radiation Work Permit," Rev. 11, dated October 2003
- UFTR SOP-D.3, "Primary Equipment Pit Entry," Rev. 4, dated October 2001
- UFTR SOP-D.4, "Removing Irradiated Samples from UFTR Experimental Ports," Rev. 7, dated October 2001
- UFTR SOP-D.1, Appendix I, Table 1, "Quarterly Exposure Limits for the UFTR Facility," Rev. 5, dated December 1993 and the latest TCN dated April 1994
- UFTR Form SOP-D.1A, "UFTR Radiation Weekly Survey," Rev. 5, dated December 1993
- UFTR Form SOP-D.1B, "UFTR Swipe Survey Results," Rev. 5, dated December 1993
- UFTR Form SOP-D.2A, "Radiation Work Permit, University of Florida Training Reactor," Rev. 11, dated October 2003
- UFTR Form SOP-D.2C, "Radiation Work Permit Survey, University of Florida Training Reactor," Rev. 11, dated October 2003
- UFTR Quarterly #2 (Q-2 Surveillance), "Calibration Check of Area and Stack Radiation Monitors," Rev. 3, dated February 2003 and the latest TCN dated September 2005 (controlled by UFTR SOP-0.5)
- UFTR Quarterly #4 (Q-4 Surveillance), "Unrestricted Area Indoor/Outdoor Radiation Survey," Rev. 3, dated February 2003 (controlled by UFTR SOP-0.5)
- UFTR Quarterly #5 (Q-5 Surveillance), "Restricted Area Radiation Survey," Rev. 3, dated February 2003 and the latest TCN dated October 2003 (controlled by UFTR SOP-0.5)

- UFTR Quarterly #6 (Q-6 Surveillance), "Check of Posting Requirements," Rev. 3, dated February 2003 and the latest TCN dated September 2007 (controlled by UFTR SOP-0.5)
- UFTR Quarterly #9 (Q-9 Surveillance), "Quarterly Calibration of Air Particulate Detector," Rev. 3, dated February 2003 (controlled by UFTR SOP-0.5)

The inspector also toured the facility and observed the various radiological signs and other postings as well.

b. Observations and Findings

(1) Surveys

The inspector reviewed weekly radiation and contamination surveys conducted by reactor staff personnel. These were surveys of facility controlled areas including the Radiochemistry Laboratory (Lab) and classroom, the Neutron Activation Analysis (NAA) Lab, the Control Room, and the Reactor Cell from 2007 through the date of the inspection. The inspector also reviewed quarterly general area radiation surveys of restricted and unrestricted areas completed by the licensee accompanied by UF EH&S Department personnel. The results were documented on the appropriate forms and were evaluated and reviewed as required. No readings or results were noted that exceeded set action levels. The licensee indicated that corrective action would be taken if results were detected that were above these levels.

(2) Postings and Notices

The inspector reviewed the postings at the entrances to various controlled areas including the Control Room, the Reactor Cell, and the Radiochemistry Lab in the UFTR facility. The postings were acceptable and indicated the radiation and contamination hazards present. Other postings also showed the industrial hygiene hazards present in the areas. The facility radioactive material storage areas were noted to be properly posted. No unmarked radioactive material was detected in the facility. Copies of notices to workers were posted in various locations throughout the facility, including on a bulletin board in the Control Room. The inspector noted that the copies of NRC Form-3, "Notice to Employees," posted at the facility, as required by 10 CFR Part 19.11, were the current version.

(3) Dosimetry

The licensee provided reactor staff personnel with dosimetry from a National Voluntary Laboratory Accreditation Program-accredited vendor (Landauer). Pocket Ion Chambers (PICs) were routinely given to visitors for use during tours of the facility. Through direct observation, the inspector determined that dosimetry was acceptably used by facility personnel and visitors as well.

The inspector noted that the licensee used Optically Stimulated Luminescent (OSL) dosimeters for staff whole body monitoring of beta and gamma radiation exposure with an additional component to measure fast/thermal neutron radiation. The licensee used thermoluminescent dosimeter (TLD) finger rings for extremity monitoring as needed. These were periodically sent to the vendor for processing.

An examination of the OSL dosimeter and TLD results for the past two years showed that the highest occupational doses, as well as doses to the public, were within 10 CFR Part 20 limitations. The records showed that the highest annual whole body exposure received by a single individual for 2006 was 75 millirem (mr) deep dose equivalent (DDE). That individual also received an extremity exposure of 290 mr and a shallow dose equivalent (SDE) of 157 mr for that year. For 2007, the highest routine annual whole body exposure received by a single individual was zero (0) mr DDE, 0 mr extremity exposure, and 41 mr SDE. These doses were well within limits specified in 10 CFR Part 20.

(4) Radiation Monitoring Equipment

The calibration records of selected portable survey meters, friskers, fixed radiation detectors, and air monitoring instruments in use at the facility were reviewed. The records showed that the portable instrument calibrations were completed by campus EH&S Division personnel and fixed radiation detectors and air monitors were typically calibrated by reactor staff personnel. The calibrations were tracked and controlled using a Microsoft Access database. The inspector confirmed that the frequencies of the calibrations, completed quarterly or semiannually, satisfied the requirements established in the TS Section 4.2.4 and 10 CFR 20.1501(b). All instruments checked by the inspector had a current calibration sticker attached.

(5) Radiation Protection Program

The licensee's Radiation Protection Program was established through the UF "Radiation Control Guide", last revised December 1999, and the UFTR SOPs. The program required that all personnel, who had unescorted access to radiation areas or to work with radioactive material, receive training in radiation protection, policies, procedures, requirements, and facilities. The inspector verified that the program was being reviewed annually as required.

The ALARA Policy was outlined and established in the UF "Program for Maintaining Occupational Radiation Exposure for Non-Medical Licensed Activities at the University of Florida, As Low As Reasonably Achievable (ALARA)," dated January 18, 2005, in Section 7 of the TS, and in the "University of Florida Training Reactor Facility As Low As Reasonably Achievable (ALARA) Program," Rev. 1, dated August 2002. The ALARA Policy provided guidance for keeping doses as low as reasonably achievable and was consistent with the guidance in 10 CFR Part 20.

(6) Radiation Work Permit Program

The inspector reviewed the Radiation Work Permits (RWPs) that had been written as stipulated in UFTR SOP-D.2 and used during 2006 and 2007. It was noted that the controls specified in the RWPs were acceptable and applicable for the type of work being done. The RWPs had been initiated, reviewed, and approved as required. Following completion of the work covered by the various RWPs, they had been terminated as required.

(7) Radiation Protection Training

The inspector reviewed the radiation worker (rad worker) training given to staff members and to others such as part-time assistants and/or students. Initial training

included attending the UF EH&S Division's "Radiation Safety Short Course." Specific instructions for working at the UFTR were provided in the "Radiation Worker Instructions" training and the "Second Person Qualification" training for reactor staff, as well as for those who used the facility on a routine or periodic basis. Radiation

protection refresher training for licensee personnel was given every two years, basically through the Reactor Operator Requalification Program.

The initial and refresher training covered the topics specified in 10 CFR Part 19 as required. Training records showed that personnel were acceptably trained in radiation protection practices. The training program was found to be acceptable.

(8) Facility Tours

The inspector toured the Control Room, Reactor Cell, and other selected support laboratories and offices. Control of radioactive material and control of access to radiation and high radiation areas were acceptable. As noted earlier, the postings and signs for these areas were appropriate.

c. Conclusions

The inspector determined that the Radiation Protection Program being implemented by the licensee satisfied regulatory and TS requirements because: 1) surveys were being completed and documented acceptably; 2) postings met regulatory requirements; 3) personnel dosimetry was being worn as required and doses were well within the NRC's regulatory limits; 4) radiation monitoring equipment was being maintained and calibrated as required; and, 5) the radiation protection training program was acceptable.

5. Effluent and Environmental Monitoring

a. Inspection Scope (IP 69001)

The inspector reviewed the following to verify compliance with the requirements of 10 CFR Part 20 and TS Sections 3.4.2 - 3.4.6 and 4.2.4:

- results of the analyses of air samples taken from the Reactor Room and the stack
- results of the analyses of liquid samples taken from the primary system, the secondary system, and the shield tank
- data concerning environmental releases and effluent monitoring contained in the licensee's "Monthly Utilization and General Activities Reports" for 2006 and 2007
- UFTR SOP-D.1, "UFTR Radiation Protection and Control," Rev. 5, dated December 1993 and the latest TCN dated October 2001
- UFTR SOP-D.7, "Circulation, Sampling, Analysis, and Discharge of Holdup Tank Wastewater," Rev. 1, dated April 2002 and the latest TCN dated November 2005
- UFTR Form SOP-D.1C, "Portable Air Sample Activity and LLD Calculation," Rev. 5, dated December 1993
- UFTR Form SOP-D.1D, "Liquid Sample Activity and LLD Calculation," Rev. 5, dated December 1993
- UFTR Form SOP-D.7A, "Liquid Sample Activity and LLD Calculation," Rev. 1, dated April 2002
- UFTR Form SOP-D.7B, "UFTR Waste Water Holdup Tank Release Authorization," Rev. 1, dated April 2002

- UFTR Form SOP-E.6B, "Argon-41 Stack Effluent Concentration," Rev. 2, dated October 2003
- UFTR Quarterly #2 (Q-2 Surveillance), "Calibration Check of Area and Stack Radiation Monitors," Rev. 3, dated February 2003 and the latest TCN dated September 2005 (controlled by UFTR SOP-0.5)
- UFTR Quarterly #4 (Q-4 Surveillance), "Unrestricted Area Indoor/Outdoor Radiation Survey," Rev. 3, dated February 2003 (controlled by UFTR SOP-0.5)
- UFTR Semiannual #4 (S-4 Surveillance), "Measurement of Argon-41 Stack Concentrations," controlled by UFTR SOP-E.6, "Argon-41 Concentration Measurement," Rev. 2, dated October 2003 and the latest TCN dated October 2005

b. Observation and Findings

The inspector reviewed the records documenting liquid and airborne releases to the environment for the past two years. The inspector determined that gaseous releases continued to be calculated as required by procedure and were adequately documented. The releases were determined to be within the annual dose constraints of 10 CFR 20.1101 (d), 10 CFR Part 20 Appendix B concentrations, and TS limits. This was documented in the licensee's "Monthly Utilization and General Activities Reports" issued for information and review by the RSRS. COMPLY code calculations conducted by the UF EH&S Division for the UFTR indicated an effective dose equivalent to the public of 0.2 mr for 2006 and 0.3 mr for 2007. As the result of observation of the facility by the inspector, no new potential release paths were found.

Liquid releases were approved by the Facility Director or Reactor Supervisor and the Radiation Control Officer after analyses indicated that the releases met regulatory requirements for discharge into the sanitary sewer. It was noted that there was one release in 2006 and one in 2007.

The inspector also reviewed the cumulative environmental monitoring OSL dosimeter results for 2006 and 2007. The effective dose equivalent to the public was well within the regulatory limits. In addition, the inspector reviewed the calibration records of the area and stack monitoring systems. These systems had been calibrated quarterly as required by TS Section 4.2.4.

c. Conclusions

Effluent monitoring satisfied procedural and regulatory requirements and releases were within the specified regulatory and TS limits.

6. Transportation

a. Inspection Scope (IP 86740)

The inspector reviewed the following to verify compliance with TS Section 3.4.6 and procedural requirements for transferring licensed material:

- records of radioactive material transfers from the reactor license to the State of Florida materials license for 2004 and to date documented on various forms
- UFTR SOP-D.4, "Removing Irradiated Samples from UFTR Experimental Ports," Rev. 7, dated October 2001

- UFTR SOP-D.5, "UFTR Reactor Waste Transfer," Rev. 2, dated June 2002
- UFTR SOP-D.6, "Control of UFTR Radioactive Material Transfers," Rev. 1, dated April 2000 and the latest TCN dated October 2003
- UFTR Form SOP-D.4A, "Record of Sample Irradiation and Disposition," Rev. 7, dated October 2001
- UFTR Form SOP-D.5A, "Radioactive Reactor Waste Transfer Checklist," Rev. 2, dated June 2002
- UFTR Form SOP-D.5B, "Radioactive Reactor Waste Container Inventory," Rev. 2, dated June 2002
- UFTR Form SOP-D.5C, "Swipe Samples Analysis Report," Rev. 2, dated June 2002
- UFTR Form SOP-D.5D, "Radioactive Waste Container Radiation Survey," Rev. 2, dated June 2002
- UFTR Form SOP-D.6A, "University of Florida Training Reactor/University of Florida Radioactive Material Transfer Record," Rev. 1, dated April 2000
- UFTR Form SOP-D.6B, "University of Florida/University of Florida Training Reactor Radioactive Material Transfer Record," Rev. 1, dated April 2000
- UFTR Form SOP-D.6C, "University of Florida Training Reactor/University of Florida Activated Foil Transfer Record," Rev. 1, dated April 2000
- UFTR Form SOP-D.6D, "University of Florida Training Reactor/University of Florida Neutron Radiography Film Cassette Transfer Record," Rev. 1, dated April 2000
- UFTR Form SOP-D.6E, "University of Florida Training Reactor/University of Florida Rabbit System Sample Package Transfer Record," Rev. 1, dated April 2000

b. Observations and Findings

Through records review and discussions with licensee personnel, the inspector determined that the licensee had transferred radioactive material and solid waste produced by reactor operations to the university's "State of Florida Radioactive Materials License" (Agreement State License), License No. 356-1, expiration date March 31, 2010, for possession, shipment, or disposal. All transfers were recorded on the appropriate and applicable forms and transfer documentation was kept on file as required.

c. Conclusions

Transfer of radioactive material from the UFTR to the State of Florida (Agreement State) License was completed and documented in accordance with facility procedural requirements.

7. Exit Meeting Summary

The inspector reviewed the inspection results with members of licensee management at the conclusion of the inspection on February 28, 2008. The licensee acknowledged the findings presented and did not identify as proprietary any of the material provided to or reviewed by the inspector during the inspection except for certain documents pertaining to security.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

M. Berglund	Senior Reactor Operator
M. Yenatskyy	NAA Lab/Reactor Facility Technician
W. Vernetson	Facility Director

Other Personnel

D. Munroe	Radiation Control Officer, Radiation Control and Radiological Services Department, EH&S Division, University of Florida
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INSPECTION PROCEDURE (IP) USED

IP 69001	Class II Research and Test Reactors
IP 86740	Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Closed

None.

PARTIAL LIST OF ACRONYMS USED

ANSI	American National Standards Institute
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DDE	Deep dose equivalent
EH&S	Environmental Health and Safety Department
LLD	Lower limit of detection
mr	millirem
NAA	Neutron Activation Analysis
NRC	Nuclear Regulatory Commission
OSL	Optically Stimulated Luminescent (dosimeter)
RCO	Radiation Control Officer
Rev.	Revision
RSRS	Reactor Safety Review Subcommittee
RWP	Radiation Work Permit
SOP	Standard Operating Procedure
TLD	Thermoluminescent dosimeter
TCN	Temporary Change Notice
TS	Technical Specifications
UF	University of Florida
UFTR	University of Florida Training Reactor