

November 28, 2003

Dr. Richard Powell
Vice President for Research
University of Arizona
Tucson, AZ 85721-0066

SUBJECT: NRC INSPECTION REPORT NO. 50-113/2003-201

Dear Dr. Powell:

This letter refers to the inspection conducted on November 17-20, 2003, at your Nuclear Reactor Laboratory TRIGA Reactor. The inspection included a review of activities authorized for your facility. The enclosed report presents the results of that inspection.

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 concern or noncompliance of Nuclear Regulatory Commission (NRC) requirements was identified. No response to this letter is required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at (the Public Electronic Reading Room) <http://www.nrc.gov/NRC/ADAMS/index.html>.

Should you have any questions concerning this inspection, please contact Craig Bassett at (404) 562-4712.

Sincerely,

/RA/

Patrick M. Madden, Section Chief
Research and Test Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-113
License No. R-52

Enclosure: NRC Inspection Report No. 50-113/2003-201
cc w/enclosure: See next page

University of Arizona

Docket No. 50-113

cc:

Office of the Mayor
P.O. Box 27210
Tucson, AZ 85726-7210

Arizona Radiation Regulatory Agency
4814 S. 40th Street
Phoenix, AZ 85040

University of Arizona
Nuclear Research Laboratory
ATTN: Dr. John Williams, Reactor Director
Bldg. 20, Rm 200
Tucson, AZ 85721-0020

University of Arizona
Nuclear Research Laboratory
ATTN: Mike Gavelek, Reactor Supervisor
Bldg. 20, Rm. 200
Tucson, AZ 85721-0020

University of Arizona
ATTN: Dr. Caroline M. Garcia
Assistant Director, Arizona Research Labs
Gould-Simpson Bldg. 1011
P.O. Box 210077
Tucson, AZ 85721-0077

University of Arizona
ATTN: Daniel Silvain, Radiation Safety Officer
1640 North Vine
Tucson, AZ 85721-0020

Test, Research and Training
Reactor Newsletter
202 Nuclear Sciences Center
University of Florida
Gainesville, FL 32611

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ACCESSION NO.: ML033300389

TEMPLATE #: NRR-106

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

Docket No: 50-113

License No: R-52

Report No: 50-113/2003-201

Licensee: University of Arizona

Facility: Nuclear Reactor Laboratory

Location: Engineering Building (202)
Tucson, Arizona

Dates: November 17-20, 2003

Inspector: Craig Bassett

Approved by: Patrick M. Madden, Section Chief
Research and Test Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

The primary focus of this routine, announced inspection was the on-site review of selected aspects and activities of the licensee's Class II research reactor safety programs including: organizational structure and staffing, design control and review and audit functions, reactor operations, fuel handling, operator requalification, surveillance, maintenance, procedures, and emergency preparedness 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 and staffing were consistent with Technical Specifications requirements for current operations.

Design Control and Review and Audit Functions

- A design change program and procedure were in place and were being implemented as required.
- The review and audit program satisfied Technical Specification requirements.

Reactor Operations

- Operational activities were consistent with applicable Technical Specification and procedural requirements.

Fuel Handling

- Fuel handling and inspection activities were being completed and documented in accordance with the requirements specified in the Technical Specification and facility procedures.

Operator Requalification

- The Requalification program was being acceptably implemented, the program was up-to-date, and plan requirements were met.

Surveillance

- The licensee's program for completing surveillance inspections and Limiting Conditions for Operation confirmations satisfied Technical Specification requirements.

Maintenance

- Maintenance logs, records, and performance satisfied Technical Specification and procedure requirements.

Experiments

- The approval and control of experiments met Technical Specification and regulatory requirements.

Procedures

- Facility procedures and use satisfied Technical Specification requirements. The procedural control and implementation program satisfied TS requirements.

Emergency Preparedness

- The emergency preparedness program was conducted in accordance with the requirements stipulated in the Emergency Plan.

REPORT DETAILS

Summary of Plant Status

The licensee's TRIGA Mark-II reactor continued to be operated in support of sample irradiation, education, operator training and requalification, and surveillance activities. During the inspection the reactor was operated on Tuesday and Wednesday at various power levels to complete operator requalification and surveillance requirements.

1. Organizational Structure and Staffing

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

The inspector reviewed the following regarding the licensee's organization and staffing to ensure that the requirements of Sections 6.1 of Technical Specifications (TS), Amendment No. 18, dated April 9, 2001, were being met:

- University of Arizona (UA) Nuclear Reactor Laboratory organizational structure and staffing
- management responsibilities and staff qualifications
- staffing requirements for the safe operation of the facility
- Operating Log Number (No.) 46, pages (pp.) 1-214, documenting facility activities for the past two years
- University of Arizona Research Reactor (UARR) Procedure, UARR 100, "Administrative and Operating Procedures," Revision (Rev.) dated May 1999

b. Observations and Findings

The Nuclear Reactor Laboratory (NRL) organizational structure and the responsibilities of the reactor management and staff had not changed since the last inspection (see NRC Inspection Report No. 50-113/2002-201). Current licensed staff consisted of the Director, Nuclear Reactor Laboratory and the Reactor Supervisor, both of whom were qualified Senior Reactor Operators (SROs), and one Reactor Operator (RO). There was also an Electronic Technician on staff at the NRL.

The reactor operations staff's qualifications satisfied the training and experience requirements stipulated in the TS. The operations log and associated records confirmed that shift staffing met the minimum requirements for duty personnel. Review of records verified that management responsibilities were administered as required by TS and applicable procedures.

c. Conclusions

The organizational structure and staffing were consistent with TS requirements for current operations.

2. Design Control and Review and Audit 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 and to verify that any modifications to the facility were consistent with 10 CFR 50.59 and were reviewed as stipulated in TS Section 6.3, the inspector reviewed selected aspects of:

- Reactor Committee (RC) meeting minutes for the past two years
- minor and substantive procedural changes and the associated RC approval
- Reactor Up-grade and Instrument Maintenance Log No. 4, pp. 56-84 and 149-150
- safety review and audit records for the past two years documented by the licensee through the use of UARR 159, "TRIGA Audit of Operations," Revision dated May 2000
- responses to the safety reviews and audits
- UARR 100, "Administrative and Operating Procedures," Rev. dated May 1999
- changes reviewed using the licensee's safety evaluation procedure, UARR 165, "Procedure for Review of Changes, Tests, and Experiments for the University of Arizona Research Reactor," Rev. 0, approved March 2001

b. Observations and Findings

The approval for changes and/or modifications were documented in the RC minutes. Changes were controlled by requiring a staff evaluation and a committee review. Completion of the changes or modifications were recorded in the Operations Log and the Reactor Up-grade and Instrument Maintenance Log. Although no recent changes or modifications had been initiated by the licensee, the inspector reviewed the package for the Control Rod Position Indicators. Replacement completed January 11, 2000. The documentation and information concerning the replacement of the LCDs were acceptable. Post installation verification testing of the system was documented. Through this review, the inspector verified that a design change program was in place at the facility.

The RC membership satisfied TS requirements and the Committee's procedural rules. The RC had quarterly meetings and a quorum was present as required. Appointment letters for recently appointed members were current as well. Review of the minutes indicated the committees provided guidance, direction and oversight, and ensured suitable use of the reactor. The minutes provided an acceptable record of RC review and audit functions and of RC safety oversight of reactor operations.

Audits were performed monthly throughout the year meeting the annual frequency requirements. Other periodic audits, including the biennial audit of the Emergency Plan, were also completed. The audits appeared to be acceptable.

c. Conclusions

The licensee's design change program and procedure were in place and were being implemented as required. The review and audit program satisfied TS requirements.

3. Reactor Operations

a. Inspection Scope (IP 69001)

To verify that the licensee was operating the reactor and conducting operations in accordance with TS Section 3 and procedural requirements, the inspector reviewed selected portions of the following:

- staffing for operations documented in Operating Log No. 46, pp. 1-214
- Console and Monitor Calibration Data Notebook, pp. 109-187
- Reactor Up-grade and Instrument Maintenance Log No. 4, pp. 56-84 and 149-150
- UARR Annual Reports for the periods from July 1, 2000 - June 30, 2001; July 1, 2001 - June 30 2002; and, July 1, 2002 - June 30, 2003
- UARR 100, "Administrative and Operating Procedures," Rev. dated May 1999
- UARR 147, "Instructions for Staff Members During Operation of the University of Arizona TRIGA Reactor," Rev. dated November 1998
- UARR 150, "Reactor Operational Rules," Rev. dated September 2000
- UARR 151, "Instructions for Daily Surveillance of Reactor Instrumentation, Safety Systems, Area Monitors, and Continuous Air Monitor," Rev. dated December 2000
- UARR 152, "Preliminary Checklist," Rev. dated November 1998, (checklists for reactor pre-start-up) for the period from January-November 2003
- UARR 153, "Critical Approach Checklist," Rev. dated February 1994, (checklists for reactor start-up and shut down) for the period from January-November 2003
- UARR 154, "Pulsing Checklist," Rev. dated November 1998, for the period from January-November 2003

The inspector also observed reactor operations, including reactor start-up and shutdown, on Tuesday and Wednesday during the week of the inspection.

b. Observations and Findings

Reactor operations were carried out following written procedures and TS requirements. Significant problems and events, including reactor scrams, were identified in the logs and records, and were reported and resolved as required before the resumption of operations under the authorization of an SRO. The inspector verified that these items, and other TS and procedure required entries, were logged in the Operating Log and cross-referenced with other logs and checklists as required. A review of the logs and records indicated that TS operational limits had not been exceeded. Operations records confirmed that shift staffing met the minimum requirements for duty personnel.

c. Conclusions

Operational activities were consistent with applicable TS and procedural requirements.

4. Fuel Handling

a. Inspection Scope (IP 69001)

To verify that TS Section 4.1 and procedural requirements were being met, the inspector reviewed selected aspects of:

- Fuel Logbook
- fuel handling equipment and instrumentation
- fuel movement and inspection records
- UARR 103, "Procedures for Detection of a Faulty Fuel Element," Rev. dated July 1994
- UARR 105, "Procedures for Fuel Element Changing," Rev. dated July 1994
- UARR 116, "Procedures for Installation and Removal of In-Core Irradiation Facilities," Rev. dated July 1994
- UARR 121, "Procedures for Use of the Fuel Element Inspection Tool," Rev. dated December 1999

b. Observations and Findings

Procedures for refueling, fuel movement, and TS required inspections/surveillances had been reviewed and approved as required and were available to ensure controlled operations. Fuel movement, log keeping, and data recording was being completed as directed by the procedures. The most recent five-year fuel element inspection had been completed on May 24, 2002, as required. Data recorded for fuel handling was clear and cross-referenced in fuel and operations logs. Log entries clearly identified, as required by procedure, that a minimum of two persons were present when fuel was being moved.

c. Conclusions

Fuel handling and inspection activities were completed and documented as required by TS and facility procedures.

5. Operator Requalification

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to ensure that the requirements of the Operator and Senior Operator Requalification Program for the University of Arizona Research Reactor, Rev. 1, dated September 15, 1989, were being met:

- status of operator licenses
- operator active duty confirmation
- operator training and examination records
- operator physical examination records
- Operating Log No. 46, pp. 1-214

- UARR 129, "Procedures for the Conduct of Operating Personnel in the Control Room and Reactor Room," Rev. dated July 1994

b. Observations and Findings

The inspector verified that the currently licensed operators were successfully completing the emergency procedure and abnormal events training, reactivity manipulations, and participating in the ongoing training as required by the NRC-approved Requalification Plan. Lectures were conducted as required and the lecture outlines for the program included appropriate subject material. Training records contained the documentation required by the program and indicated that requirements for completion of an annual operating test, a biennial written examination, and participation in the annual emergency drill were being fulfilled. Required quarterly operating hours, as an SRO, RO, or supervisor, were being tracked and completed. Biennial medical exams had been conducted as required. Checklists used for tracking requalification requirements were up-to-date and ensured that the plan elements were accomplished. Previous problems noted in NRC Inspection Report No. 50-113/2002-201, concerning the failure of operators to take the biennial written examination and failure to review the Administrative, Operating, and Emergency Procedures as required by the program, had been resolved.

The inspector also observed an annual operating test conducted by the Reactor Supervisor for the other SRO licensed to operate the reactor at the facility. The test was thorough and detailed, and the SRO completed it satisfactorily.

c. Conclusions

The Requalification Program was being acceptably implemented, the program was up-to-date, and plan requirements were met.

6. Surveillance

a. Inspection Scope (IP 69001)

To verify that the licensee was meeting the requirements of TS Section 4, the inspector reviewed selected aspects of:

- surveillance, calibration, and test data sheets and records
- Operating Log No. 46, pp. 1-214
- Console and Monitor Calibration Data Notebook, pp. 109-187
- Reactor Up-grade and Instrument Maintenance Log No. 4, pp. 56-84 and 149-150
- UARR Annual Reports for the periods from July 1, 2000 - June 30, 2001; July 1, 2001 - June 30 2002; and, July 1, 2002 - June 30, 2003
- UARR 102, "Procedure for Semi-Annual Visual Inspection of the Transient Rod Drive Cylinder and Air Supply System," Rev. dated November 1998
- UARR 107, "Procedure for Control Element Removal and Inspection," Rev. dated July 1994

- UARR 108, "Procedures for Repair and Calibration of Electronic Equipment in the Console and Control Rod Drive Systems," Rev. dated March 2001
- UARR 122, "Procedures for Measurement of Control Rod Drop Times," Rev. dated July 1994
- UARR 125, "Procedures for Power Calibration of the University of Arizona TRIGA Reactor," Rev. dated October 1997
- UARR 126, "Procedures for Control Rod Calibration of the University of Arizona Reactor," Rev. dated July 1994
- UARR 140, "Procedure for Pulse Chamber Calibration," Rev. dated July 1994
- UARR 142, "Procedure for Testing Maximum Reactivity Insertion Rate for TRIGA Control Rods in Manual Mode of Operation," Rev. dated July 1994
- UARR 143, "Procedure for Calibrating the Period Meter," Rev. dated July 1994

b. Observations and Findings

The licensee used various checklists to track daily, monthly, and other periodic checks, audits, drills, training, and inspections, as well as verifications for TS required Limiting Conditions for Operation (LCOs). The checklists included the date the surveillance or LCO was last performed, the date it was presently completed, and information on where the data was documented, and by whom. These checklists provided clear and concise documentation and control of reactor operational tests and surveillances. All data reviewed, including surveillance inspections and LCO verifications, were completed on schedule as required by TS and in accordance with licensee procedures. All results reviewed were within prescribed TS and procedure parameters and in close agreement with the previous surveillance results.

c. Conclusions

The licensee's program for completing surveillance inspections and LCO confirmations satisfied TS and licensee administrative controls.

7. **Maintenance**

a. Inspection Scope (IP 69001)

To verify that the licensee was meeting the requirements of their Preventive Maintenance Program and complying with TS Section 5, the inspector reviewed selected aspects of:

- Operating Log No. 46, pp. 1-214
- equipment maintenance records
- Console and Monitor Calibration Data Notebook, pp. 109-187
- Reactor Up-grade and Instrument Maintenance Log No. 4, pp. 56-84 and 149-150
- UARR Annual Reports for the periods from July 1, 2000 - June 30, 2001; July 1, 2001 - June 30 2002; and, July 1, 2002 - June 30, 2003
- UARR 109, "General Procedures for the Repair, Modification, Calibration, or Installation of Equipment," Rev. dated March 2001

- UARR 139, "Procedure for Repair or Modification of the Fast Irradiation Facility (FIF)," Rev. dated November 1998
- UARR 155, "Monthly Checklist," Rev. dated June 1999
- UARR 156, "Annual Checklist," Rev. dated December 2000
- UARR 159, "TRIGA Audit of Operations," Rev. dated May 2000

b. Observations and Findings

Routine/preventive maintenance was controlled and documented in the Reactor Upgrade and Instrument Maintenance Log (and cross referenced in the Operating Log) consistent with the TS and licensee procedures. Unscheduled maintenance or repairs were reviewed to determine if they required a 50.59 evaluation. Following maintenance and/or repair, equipment verifications and operational systems checks were performed to ensure system operability before being returned to service. This included a statement signed by the RS indicating that the system had been tested for operation and that the reactor was approved for operation.

During a facility tour the inspector noted that Control Room and Reactor Room equipment was operational. No missing or malfunctioning equipment was noted. Equipment, and the facility in generally, appeared to be well maintained.

c. Conclusions

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

8. Experiments

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to verify compliance with TS Sections 3.7 and 6.8:

- experimental program requirements
- approved reactor experiments documented in Experiment Plans
- RC meeting minutes for the past two years
- experimental administrative controls and precautions
- Operating Log No. 45, pp.286, 290, & 291
- TRIGA Irradiation Request and Material Transfer Forms Nos. 1903-1912
- UARR 10, "Neutron Irradiation and Radioisotope Production in the University of Arizona Nuclear Reactor," Rev. dated November 1998
- UARR 110, "Procedures for Performing Irradiations in the Irradiation Facilities or in the Water Outside the Reactor Core," Rev. dated July 1994
- UARR 113, "Procedures for Installation and Use of the Neutron Radiography Tube," Rev. dated July 1994
- UARR 116, "Procedures for Installation and Removal of In-Core Irradiation Facilities," Rev. dated July 1994

- UARR 130, "Procedures for the Review and Performance of Experiments," Rev. dated March 2001
- UARR 159, "TRIGA Audit of Operations," Rev. dated May 2000

b. Observations and Findings

The inspector noted that all the experiments conducted at the facility were well-established procedures that had been in place for several years. The most recently proposed new experiment, Experiment 96-1, was approved in May 1996 with more recent variations of the experiment, Experiment 98-1 approved in November 1998, and another version dated September 2001. No experiments had been conducted since September 2001 at the facility. The inspector verified that the experiments had been reviewed and approved by the Director of the NRL, or his designee, and the RC, and that new or significantly different ones would be referred to the RC for review and approval as required.

Through reviewing the Operating Log and interviewing staff members, the inspector verified that experiments were conducted as required by the TS and the approved Experiment Plan. The checklist for RC review of experiments ensured that experiments would conform to TS and license requirements and that hazards would be identified and analyzed.

c. Conclusions

The approval and control of experiments met TS and applicable regulatory requirements.

9. Procedures

a. Inspection Scope (IP 69001)

To verify compliance with TS Section 6.3.a, the inspector reviewed selected portions of the following:

- RC meeting minutes for the past two years
- administrative controls
- selected procedures as noted above
- records of changes to procedures
- procedural implementation

b. Observations and Findings

Administrative policies and controls had been developed for changing and reviewing procedures. Written changes were reviewed and approved by the Director, NRL and the RC as required and documented in the RC meeting minutes. Training of personnel on procedures and changes was acceptable. Oversight and review of procedure implementation was provided by facility management and the RC. NRL staff members conducted TS activities in accordance with applicable procedures. Records showed that procedures for potential malfunctions (e.g., radioactive releases and contaminations, and reactor equipment problems) were available as required.

c. Conclusions

Procedural control and implementation programs satisfied TS requirements.

10. Emergency Preparedness

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of:

- Emergency Plan for the University of Arizona Nuclear Reactor Laboratory, Rev. 9, dated May 2003
- Letters of Agreement between the licensee and the various support organizations
- documentation of the emergency drills held in 2001, 2002, and 2003 and the follow-up critiques
- UARR 101, "Emergency Procedures," Rev. dated May 1999
- UARR 101, "Emergency Procedures Implementing Appendix," Rev. dated September 2001
- UARR 160, "University of Arizona Research Reactor Biennial Emergency Plan Audit," Rev. dated March 2001

b. Observations and Findings

The inspector reviewed the Emergency Plan (E-Plan) in use at the NRL and verified that the E-Plan was audited annually by the Reactor Supervisor and biennially by the RC as required. The Emergency Implementing Procedures were reviewed and revised as needed to ensure effective implementation of the E-Plan.

Through direct observation, records review, and interviews with emergency organization personnel (i.e., emergency responders), the inspector determined that they were capable to respond, and knowledgeable of the proper actions to take, in case of an emergency. Training for NRL staff and Radiation Control Office personnel had been conducted annually as required.

The inspector verified that the Letters of Agreement with the various support agencies had been maintained and updated as necessary. The letters were dated as follows: City of Tucson dated January 14, 2003; Rural/Metro Southwest Ambulance dated January 17, 2003; University Medical Center dated January 15, 2003; UA Radiation Control Office dated January 9, 2003; and, UA Police Department dated January 15, 2003. The inspector also noted that communications capabilities with these support groups were acceptable and had been periodically tested.

The inspector reviewed the annual emergency drills that had been conducted for the past three years. It was noted that off-site support organization notification and/or participation was as required by the E-Plan. A critique was held following each drill to discuss the strengths and weaknesses noted during the exercise and to develop possible solutions to the problems identified.

On Tuesday morning, the inspector visited the University Medical Center and observed the facilities and equipment staged there to handle emergency situations. The facility set-up and the provisions staged there were adequate to handle any problem that might arise at the NRL.

The inspector also observed portions of a UA Campus Emergency Exercise coordinated by the University of Arizona Police Department (UAPD); the inspector attended the follow-up debriefing or critique as well. The exercise was held on Tuesday morning and involved a challenging scenario with various complicating facets. Participants included members from the campus student body, UAPD, the UA Campus Emergency Response Team, the Tucson Police Department, the Tucson Fire Department, Pima County Office of Homeland Security, the Rural Metro Fire Department, and the local office of the Federal Bureau of Investigations (FBI). A critique, held following the exercise, allowed participants and controllers the opportunity to discuss strengths noted during the drill and areas for improvement. The exercise appeared to be a success and was a very valuable learning experience for all involved.

c. Conclusions

The emergency preparedness program was conducted in accordance with the requirements stipulated in the Emergency Plan.

11. Access Control

a. Inspection Scope (IP 69001)

To verify compliance with facility procedures dealing with access control to the NRL, the inspector reviewed selected portions of the following:

- UARR 100, "Administrative and Operating Procedures," Rev. dated May 1999
- procedural implementation

b. Observations and Findings

TS Section 6.3.a.1 requires that written procedures shall be in effect and followed for the startup, operation, and shutdown of the reactor. UARR 100, "Administrative and Operating Procedures," Rev. dated May 1999, states in Part II, "Operation Procedures," Section 2.1, that specified persons, including the Reactor Supervisor, may authorize the entry of visitors into the UARR Laboratory if: a) there is a valid reason, b) the visitor presents no hazard to the facility or reactor operations, and c) an escort is assigned for supervising the visitor while in the Reactor Laboratory.

On Tuesday afternoon, the inspector asked to review various logbooks and records that were stored in the Control Room, which is part of the Reactor Laboratory. The inspector inquired as to whether or not it would be acceptable to remain in the Control Room while reviewing the records instead of taking all the records to another area. The licensee indicated that the inspector could remain in the Control Room during the

review. After the Reactor Supervisor admitted the inspector into the Control Room, the Reactor Supervisor left the area and allowed the inspector to remain behind with no escort. After approximately 45 minutes, the inspector left the Control Room to attend the debriefing concerning the Campus Emergency Exercise that had been conducted earlier that day.

Upon returning, the licensee informed the inspector that a violation of the facility procedure, UARR 100, had occurred. Subsequently, the inspector was provided with an escort whenever he was in the Control Room. The licensee was informed that this licensee-identified and corrected violation (involving failure to provide an escort for a visitor in the Control Room) is being treated as a Non-Cited Violation (NCV), consistent with Section VII.B.1 of the NRC Enforcement Policy (NCV 50-113/2003-201-01).

c. Conclusions

One Non-Cited Violation was identified for failure to provide an escort for a visitor in the NRL Control Room.

12. Follow-up on Previously Identified Inspector Follow-up Items

a. Inspection Scope (IP 92701)

The inspector followed up on an Inspector Follow-up Item (IFI) that had been identified and documented in a previous inspection report. The inspector reviewed the issue with the licensee to determine what actions, if any, had been taken and the acceptability of those actions.

b. Observations and Findings

IFI 50-113-/1999-201-01 (Closed): Follow-up on the licensee's actions to evaluate the need for additional written documentation or procedures for calibration sources prepared "in-house."

The inspector interviewed licensee representatives and reviewed the written documentation concerning calibration sources. The licensee explained the use of the current procedures and supporting documentation and indicated that no further documentation was required for the use and control of the calibration sources. The documentation and procedures appeared to be adequate and were sufficient to close this IFI. This issue is considered closed.

c. Conclusions

One IFI was reviewed and closed during this inspection.

13. Exit Interview

The inspection scope and results were summarized on November 20, 2003, with licensee representatives. The inspector discussed the findings for each area reviewed. No dissenting comments were received from the licensee. Although safeguards information was reviewed during the inspection no such material is included in this report.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

M. Cusanovich	Director, Arizona Research Laboratory (representing the Vice President for Research, UA)
M. Gavelek	Reactor Supervisor and Senior Reactor Operator
W. Lohmeier	Electronic Technician
R. Offerle	Reactor Operator
D. Silvain	Reactor Radiation Safety Officer
J. Williams	Director, Nuclear Radiation Laboratory

Other Personnel

T. Bahill	Chairman, Reactor Committee
D. Hill	Member, Reactor Committee
E. Mejia	Sergeant, University of Arizona Police Department and Member of the Reactor Committee
B. Seastone	Commander, University of Arizona Police Department

INSPECTION PROCEDURES USED

IP 69001:	Class II Non-Power Reactors
IP 92701:	Follow-up

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-113/2003-201-01	NCV	Failure to provide an escort for a visitor in the Control Room as required by procedure UARR 100.
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Closed

50-113/1999-201-01	IFI	Follow-up on the licensee's actions to evaluate the need for additional written documentation or procedures for calibration sources prepared "in-house."
50-113/2003-201-01	NCV	Failure to provide an escort for a visitor in the Control Room as required by procedure UARR 100.

PARTIAL LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
FIF	Fast Irradiation Facility
IFI	Inspector Follow-up Item
IP	Inspection Procedure
LCO	Limiting Conditions for Operation
NCV	Non-Cited Violation
NRL	Nuclear Radiation Laboratory
NRC	Nuclear Regulatory Commission
RC	Reactor Committee
RO	Reactor Operator
SRO	Senior Reactor Operator
TS	Technical Specifications
UA	University of Arizona
UAPD	University of Arizona Police Department
UARR	University of Arizona Research Reactor