

July 1, 2005

Dr. Warren Day, Reactor Administrator  
U.S. Department of the Interior  
Geological Survey  
Denver Federal Center  
Box 25046, MS 915  
Denver, CO 80225-0046

SUBJECT: NRC INSPECTION REPORT NO. 50-274/2005-201

Dear Dr. Day:

This letter refers to the inspection conducted on June 20-23, 2005, at your U.S. Geological Survey TRIGA Reactor Facility. 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 observation of activities in progress. Based on the results of this inspection, no safety concerns or noncompliances of NRC requirements were identified. No response to this letter is required.

In accordance with 10 CFR 2.390 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/reading-rm/adams.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. 50-274  
License No. R-113

Enclosure: NRC Inspection Report No. 50-274/2005-201

cc w/enclosure: Please see next page

U.S. Geological Survey

Docket No. 50-274

cc:

Mayor  
City Hall  
Denver, CO 80202

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

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**TEMPLATE #: NRR-106**

OFFICE	RNRP:RI	RNRP:LA	RNRP:SC
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DATE	/ /2005	6/30/2005	6/30/2005

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

Docket No: 50-274

License No: R-113

Report No: 50-274/2005-201

Licensee: United States Geological Survey

Facility: Geological Survey TRIGA Reactor

Location: Building 15, Denver Federal Center  
Denver Colorado

Dates: June 20-23, 2005

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

United States Geological Survey  
Report No. 50-274/2005-201

The primary focus of this routine, announced inspection was the on-site review of selected aspects of the United States Geological Survey TRIGA Reactor Facility safety programs including: organization and staffing, review and audit and design change functions, reactor operations, procedures, maintenance and surveillance, experiments, fuel movement, operator requalification, and emergency preparedness since the last NRC inspection of these areas. The licensee's programs were determined to be directed toward the protection of public and facility worker health and safety and were in compliance with NRC requirements.

### Organization and Staffing

- The organizational structure and functions were consistent with the requirements specified in Section H of the Technical Specifications.

### Review and Audit and Design Change Functions

- Audits and reviews were being conducted by the Reactor Operations Committee in compliance with the requirements specified in Chapter/Section 3 of the Reactor Operations Manual and Section H.2 of the Technical Specifications.
- Based on the records reviewed, the inspector determined that the licensee's design change program was being implemented as required.

### Operations

- Reactor operations and logs were acceptable and in accordance with procedural and Technical Specifications and License requirements.

### Procedures

- Based on the procedures and records reviewed and observations of staff during the inspection, the procedural control and implementation program was determined to be satisfying Technical Specifications requirements.

### Maintenance and Surveillance

- The facility maintenance program was being implemented as required by facility procedures.
- The licensee's program for completing surveillance checks and tests and confirming Limiting Conditions for Operation satisfied Technical Specifications requirements.

### Experiments

- Conduct and control of experiments and irradiations met the requirements specified in the Technical Specifications Section I and the applicable experiment authorizations and procedures.

### Fuel Handling

- Fuel handling activities and documentation were as required by the Technical Specifications and facility procedures.

### Operator Requalification

- The requirements of the Operator Requalification Program were being met and the program was being acceptably implemented.

### Emergency Preparedness

- The current facility Emergency Plan and implementing procedures were being reviewed biennially as required and updated as needed.
- Emergency response equipment was being maintained and alarms were being tested monthly as required.
- Letters of Agreement with the University of Colorado Hospital and the Department of Energy were being updated biennially as required.
- Annual evacuation drills were being conducted as required by the Emergency Plan.
- Emergency preparedness training was being completed as required.

## REPORT DETAILS

### **Summary of Plant Status**

The licensee's one megawatt Research and Test Reactor continued to be operated in support of U.S. Geological Survey programs. During the inspection the reactor was operated at full power Wednesday and Thursday to support ongoing experimental and research work.

#### **1. Organization 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 Section H of Technical Specifications (TS), Amendment No. 8, dated March 16, 1998, were being met:

- organizational structure for the Geological Survey TRIGA Reactor (GSTR) Facility
- staffing requirements for safe operation of the facility
- current staff qualifications
- Reactor Operations Manual (ROM), Chapter/Section 3, "Nuclear Center Organization," dated November 2004
- U.S. Geological Survey TRIGA Reactor Annual Reports for 2003 and 2004

##### b. Observations and Findings

The organizational structure and staffing had not changed in function since the last inspection (refer to NRC Inspection Report No. 50-274/2004-201) but personnel changes had occurred. The operations staff was made up of the Reactor Supervisor, who was also a Senior Reactor Operator (SRO), the Radiation Safety Officer (RSO) for all United States Geological Survey (USGS) organizations at the Denver Federal Center, who was also an SRO, and a third SRO. One person who had been in training to become a Reactor Operator (RO) was no longer employed at the facility. The licensee was in the process of hiring another person to be trained as an RO. The reactor HP staff consisted of one full time radiological health technician and the aforementioned RSO. Chapter/Section 3.4.1 of the ROM stated that the training and qualifications contained in the American National Standards Institute (ANSI) Standard 15.4 "Standards for Selection and Training of Personnel for Research Reactors" were the minimum for USGS TRIGA Reactor Facility personnel. The inspector confirmed that the reactor staff met ANSI 15.4 education, training, and experience requirements.

##### c. Conclusions

The licensee's organization and staffing were in compliance with the facility TS Section H.

## 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 by TS Section H.2 and to verify that the requirements of 10 CFR 50.59 were being met, the inspector reviewed selected aspects of:

- Reactor Operations Committee (ROC) meeting minutes for 2004 and 2005
- safety review records and audit reports for the past two years
- responses to the audit reports
- ROC Committee charter outlined in the U.S. Geological Survey Manual, 308.44, "Reactor Operations Committee," dated February 5, 1999
- ROM, Chapter/Section 3, "Nuclear Center Organization," dated November 2004
- facility design change records for the past two years
- facility configuration records
- GSTR Experiment Review Checklist

### b. Observations and Findings

#### (1) Review and Audits Functions

The inspector verified that the ROC semiannual meeting schedule, as well as the committee membership, satisfied TS Section H.2, ROC charter, and ROM requirements. Review of the meeting minutes for the past two years indicated that the committee met at least twice a year and provided guidance, direction, and oversight for the reactor and ensured suitable and safe reactor operations.

The ROC minutes and audit records showed that safety reviews and individual audits had been completed for the functional areas specified by TS Sections H.2, H.5, and I.3 and at the frequency specified in Chapter/Section 3.8 of the ROM. The inspector noted that audit topics included reactor operations, maintenance and operations logs, fuel movement, facility procedures, the operator requalification program, and the Radiation Protection Program. The inspector reviewed the results of the audits for the past two years had been completed in May 2004 and May 2005. The inspector determined that the audit findings and licensee actions taken in response to the findings were acceptable.

#### (2) Design Control Functions

The inspector determined that design changes at the GSTR required a facility staff review followed by an ROC review and subsequent approval. No design changes had been processed during the past two years. The most recent review, conducted almost three years ago, involved replacement of the reactor console chart recorder with a new paperless chart recorder. The inspector reviewed the records and determined that the review had been performed as required and had been reviewed and approved by the ROC. From the review and interviews with licensee personnel, the inspector determined that an appropriate 10 CFR 50.59

design change program was in place at the facility and that staff reviews and ROC reviews and approvals were focused on safety and met licensee program requirements.

c. Conclusions

Audits and reviews conducted by the ROC were in accordance with the requirements specified in Section H.2 of the TS and Chapter/Section 3 of the ROM. Based on the records reviewed, the inspector determined that the licensee's design change program was being implemented as required.

**3. Operations**

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to verify operation of the reactor in accordance with TS Sections C - E:

- staffing for operations as required by ROM, Chapter/Section 5.2
- Reactor Operations Logbooks Numbers (Nos.) 121 - 125
- U. S. Geological Survey, Department of the Interior, Facility License, (No. R-113), Amendment 9, dated April 15, 1998
- U.S. Geological Survey TRIGA Reactor Annual Reports for 2003 and 2004
- selected startup, operational, and shutdown activities on June 22 and 23, 2005
- selected GSTR Facility Start-Up Checklists including Page 1, Revision (Rev.) 8 dated April 2005, and Page 2, Rev. 7, dated April 2002
- daily TRIGA Prestart Test data sheet printouts for April 2005 through the present
- selected GSTR Facility Shutdown Checklists, Rev. 13, dated April 2002
- selected GSTR Facility Monthly Checklists, Rev. 7, dated September 1997
- ROM, Chapter/Section 5, "Operating Procedures," Rev. 4, dated October 1995
- GSTR Procedure No. 1, "Procedure for Reactor Startup, Operation, and Shutdown," last reviewed May 9, 2005
- GSTR Procedure No. 6, "Procedure for Loading and Unloading Irradiation Facilities," last reviewed October 27, 2003
- GSTR Procedure No. 14, "Procedure for Overhead Crane Operation," last reviewed May 2, 2004

b. Observations and Findings

The inspector reviewed the operations logs from February 2004 through the present. The inspector also reviewed Daily Start-Up and Shutdown Checklists and Monthly Checklists. Additionally, the inspector observed selected operational activities involving reactor startup, shutdown, and steady state operation on June 22 and 23, 2005. Reactor operations were carried out in accordance with written procedures as required by TS Section H.3. Information on the operational status of the facility was generally recorded accurately in log books or on checklists as required by Section 3.C. of the Facility License and ROM Chapter/Section 5. Scrams were identified in the logs and records, and were reported and resolved as required before the resumption of

operations. Through interviews with operators, the inspector confirmed that shift staffing met the minimum requirements for duty and on-call personnel as required by ROM Chapter/Section 5.2.4. Complete shift staffing was not typically recorded in the logs.

c. Conclusions

Based on the procedures and records reviewed, and observations made during the inspection, the inspector determined that reactor operations and logs were acceptable and in accordance with procedural, TS, and License requirements.

**4. Procedures**

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to ensure that safety standards and written instructions for those activities specified in TS Sections H.2 and H.3 were in effect:

- observation of procedural implementation
- records of changes and temporary changes to procedures
- selected ROM Administrative Procedures and GSTR Operations Procedures
- ROC meeting minutes documenting procedure change reviews and approvals

b. Observations and Findings

The inspector reviewed ROM Chapters/Sections 4, 5, and 8, and selected specific GSTR Operating Procedures contained in ROM Chapter/Section 5. These ROM Chapter/Sections contained descriptions of the administrative, operations, and HP procedures for the facility. The inspector confirmed that written procedures were available for those tasks and items required by TS Sections H.2 and H.3. The ROM procedures were reviewed and revised as needed; the GSTR procedures were reviewed biennially and revised as needed. The licensee controlled changes to procedures which were only implemented after being reviewed and approved by the ROC.

After review of the 2004 training records and interviews with staff, the inspector determined that the training of personnel on procedures was adequate. During tours of the facility, the inspector observed that personnel performed facility operations and tasks in accordance with applicable procedures.

c. Conclusions

Based on the procedures and records reviewed and observations of staff during the inspection, the inspector determined that the procedural control and implementation program was acceptably maintained.

## 5. Maintenance and Surveillance

### a. Inspection Scope (IP 69001)

To verify that the maintenance and surveillance programs were being conducted as required in TS Sections C through E, the inspector reviewed selected aspects of:

- GSTR Maintenance Log No. 1, pages 147-148, 161-162, and 174-175
- Reactor Operations Logbooks Nos. 121 - 125
- reactor operations, periodic checks, tests, and verifications
- surveillance, calibration, and test data sheets and records
- U.S. Geological Survey TRIGA Reactor Annual Reports for 2003 and 2004
- selected GSTR Facility Start-Up Checklists including Page 1, Rev. 8 dated April 2005, and Page 2, Rev. 7, dated April 2002
- selected GSTR Facility Shutdown Checklists, Rev. 13, dated April 2002
- selected GSTR Facility Monthly Checklists, Rev. 7, dated September 1997
- GSTR Procedure No. 2, "Procedure for Reactor Power Calibration," last reviewed May 9, 2005
- GSTR Procedure No. 3, "Procedure for Control Rod Calibration," last reviewed May 2, 2004
- GSTR Procedure No. 7, "Procedure for Control Rod Measurement, Inspection, or Replacement," last reviewed May 2, 2004
- GSTR Procedure No. 21, "Procedure for Measuring Control Rod Drop Time," last reviewed October 27, 2003

### b. Observations and Findings

#### (1) Maintenance

The inspector reviewed selected maintenance guidance and other associated maintenance records including the Maintenance Log. The records reviewed indicated that routine and preventive maintenance was controlled, conducted, and documented in the Maintenance or Operations Log consistent with licensee procedures. Verifications and operational systems checks were performed to ensure system operability before an item of equipment or a system was returned to service. Unscheduled maintenance or repairs were reviewed to determine if they required a 10 CFR 50.59 evaluation.

#### (2) Surveillance

Surveillance checks, inspections, and verifications were tracked through the Daily and/or Monthly Checklists. Documentation of completion of these activities was maintained in the Checklists and/or in the Operations or Fuel Logbooks. This system was found to provide adequate control of the reactor operational tests and checks, and Limiting Conditions for Operation (LCO) verifications.

The inspector reviewed selected records of TS required checks, tests, and LCO verifications performed since January 2004. These included the daily checkouts

that provide control rod scram, withdraw prevent, and interlock functions, and weekly conductivity tests, as well as monthly surveillance checks of the reactor ventilation system, building alarms, radiological safety, and reactor water system. Other periodic surveillances and verifications were reviewed including power calibrations, control rod inspections and fuel elements inspections. The review showed that the periodic checks, tests, and verifications for TS required LCOs and surveillances were completed as required. The results of these activities were within prescribed TS limits and procedure parameters and in agreement with the previous surveillance results.

c. Conclusions

The licensee's maintenance program was being implemented as required by GSTR procedures. The program for surveillance checks and LCO confirmations satisfied TS requirements.

**6. Experiments**

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to assure compliance with TS Section I:

- experiment program requirements contained in ROM Chapter/Sections 4.5 through 4.8
- U.S. Geological Survey TRIGA Survey Reactor Experiment Authorization Forms including Parts I, II, and III for Experiment Nos. L-114, L-115, C-31, P-16, and O-20
- selected U.S. Geological Survey TRIGA Survey Reactor Radioisotope Request and Receipt (RR&R) Forms which had been completed during April - June 2005
- other related experiment authorizations, logs, and records
- U.S. Geological Survey TRIGA Reactor Annual Reports for 2003 and 2004

b. Observations and Findings

Experiments at the GSTR were considered as either Class I or Class II experiments. Class I experiments were those that had been performed previously or were minor modifications to previous experiments. They could typically be approved by the Reactor Supervisor (RS). Class II experiments were new experiments or major modifications of previously existing ones. These were required to be reviewed and approved by the ROC. The inspector noted that all current experiments were reviewed on an annual basis by the RS and approved if still active and the appropriate controls remained in effect.

The inspector reviewed selected experiment authorizations and two new experiment authorization forms. The authorization forms listed a description of the experiment, the experiment class, limiting conditions for reactor operations, personnel authorized to deliver and/or pick up samples, and the license number of the authorized recipient.

The new experiments were designated as Class I and both involved isotope production. This review confirmed that experiments were reviewed and approved by the RS or would be referred to the ROC for approval as required. The review of current experiment authorizations, RR&R forms, and related reactor log book entries and observation of two activation runs, confirmed that experiments were installed, performed, and removed as outlined in the approved experiment authorizations. The inspector also determined that the resulting radioisotopes that were produced were appropriately controlled and transferred as required and documented on the RR&R forms.

It was noted that the RR&R forms were generally complete and accurate but three forms were noted that did not contain all the required information. When the inspector informed the licensee about the three forms, they were corrected by the appropriate staff members who had filled out the forms. The licensee was informed that this issue of properly completing the RR&R forms will be identified by the NRC as an Inspector Follow-up Item (IFI) and will be reviewed during a future inspection (IFI 50-274/2005-201-01).

The inspector observed the insertion of an experimental sample into the reactor and removal of another. The samples were handled as prescribed by procedure and in accordance with proper radiological controls.

c. Conclusions

The control and performance of experiments were acceptable and in accordance with Experiment Authorization and TS Section I requirements.

**7. Fuel Handling**

a. Inspection Scope (IP 69001)

To verify compliance with TS Sections D.6 and G, the inspector reviewed selected aspects of:

- fuel movement and examination records
- Reactor Operations Logbooks Nos. 121 - 125
- fuel handling equipment and instrumentation
- Fuel Element Location Board maintained in the Reactor Room
- GSTR Fuel Book containing the various USGS TRIGA Reactor Fuel Element History sheets for all the elements at the facility
- GSTR Procedure No. 4, "Procedure for Fuel Loading and Unloading," last reviewed May 2, 2004
- GSTR Procedure No. 8, "Procedure for Measuring Fuel Elements," last reviewed November 5, 2004
- GSTR Procedure No. 9, "Procedure for Locating Fuel Element Cladding Failure," last reviewed May 2, 2004

b. Observations and Findings

The inspector reviewed the GSTR procedures for fuel movement and maintenance of fuel logs and inspection records. Fuel movement, inspection, log keeping, and data recording followed the guidance specified in the facility procedures and met TS Section D.6 requirements. Data recorded for fuel movement was clear and cross referenced in Fuel and Operations Logs. Through review of the fuel movement and inspection records and interviews with operations staff, the inspector verified that fuel was moved and controlled according to established procedure and in accordance with TS requirements. The inspector also verified that fuel was being stored in the locations indicated by licensee records and as required in TS Section G.

c. Conclusions

Fuel handling activities and the documentation thereof were acceptable and in accordance with procedural and TS requirements.

**8. Operator Requalification**

a. Inspection Scope (IP 69001)

To verify that the licensee was complying with the requirements of the NRC-approved operator requalification program, the inspector reviewed selected aspects of:

- operator active duty status
- effective dates of current operator licenses
- Appendix 3-1 to ROM Chapter/Section 3, entitled "U.S. Geological Survey TRIGA Reactor Operator Requalification Program," dated September 1989
- individual operator training records documented on GSTR Reactor Operator Requalification OJT forms for the periods from January 2003 - December 2004 and from January 2005 - December 2006
- physical examination records documented on NRC Form 396 records
- operator competence evaluation and written examination records

b. Observations and Findings

As noted above, there were three SROs at the facility, one of whom was also the RSO for all USGS organizations at the Denver Federal Center. The operator licenses of these three individuals were current. One person, a student from the Colorado School of Mines, who had been in training to become an RO was no longer employed at the facility. The licensee was in the process of hiring another person to be trained as an RO. That person was scheduled to begin work at the facility in August 2005.

The inspector reviewed the various operators' training records and confirmed that all the licensed SROs were knowledgeable of the appropriate subject material required by the program as demonstrated by successful completion of annual written examinations. Individual requalification records also showed that each operator demonstrated operational competence by completing annual operating performance

exams administered by the Reactor Supervisor as required by the program. The inspector further confirmed that the SROs had completed the required reactivity manipulations and the quarterly hours of operation required by the program. Each operator had also received a biennial medical exam as required by 10 CFR 55 Subpart C.

c. Conclusions

The requirements of the Operator Requalification Program were being met and the program was being acceptably implemented.

**9. Emergency Preparedness**

a. Inspection Scope (IP 69001)

To verify compliance with the facility Emergency Plan, the inspector reviewed selected aspects of:

- training records for the past two years
- emergency drills and exercises for 2003 and 2005
- emergency response facilities, supplies, equipment and instrumentation
- Emergency Plan implementing procedures contained in ROM Chapter/Section 7, "Emergency Procedures," dated May 1998
- U.S. Geological Survey TRIGA Reactor Annual Reports for 2003 and 2004
- offsite support agreements with DOE Rocky Flats and the University of Colorado Hospital
- University of Colorado Hospital Radiation Disaster Plan (current version)
- University of Colorado Hospital External Disaster Plan (Plan D) (most recent version)
- University of Colorado Hospital Emergency Incident Command System - Job Action Sheet - Radiation Safety Officer

b. Observations and Findings

The inspector reviewed the licensee's emergency plan (E-Plan) entitled, "Emergency Plan for the U.S. Geological Survey TRIGA Reactor Facility," dated February 2005, in use at the facility. The E-Plan was the same as the version most recently submitted to the NRC. The E-Plan was audited and reviewed at least biennially (typically annually) by the ROC as required by TS Section H.5 and revised as needed. The implementing procedures were also reviewed annually and revised as needed to ensure the effectiveness of the E-Plan. Through random checks of the emergency equipment and portable detection instrumentation, the inspector determined these resources were being maintained as required by the E-Plan. Alarms were being tested monthly as required.

Through reviews of training records and drill summaries and critiques, and through interviews with GSTR personnel, the inspector confirmed that emergency response training was given as required by the E-Plan and that emergency responders were

knowledgeable of the proper actions to take in case of an emergency. It was noted that Emergency drills had been conducted as required by the E-Plan. Each drill provided a practical and reasonable test of the participants' knowledge and skills. Critiques were held following the drills to discuss the strengths and weaknesses identified during the exercise and to develop possible solutions for any problems identified. The inspector also verified that Letters of Agreements with outside response organizations (e.g., the University of Colorado Hospital and Department of Energy, Rocky Flats Field Office) were in effect, had been updated biennially as required, and were adequate.

The inspector met with hospital personnel from the University of Colorado Hospital (UCH) at their hospital complex in Denver, CO. The hospital staff had established an effective plan and developed appropriate procedures for dealing with radiological emergencies of varying magnitudes. Also, the UCH maintained adequate supplies and equipment for such an eventuality. The inspector noted that there was a good working relationship between GSTR and hospital personnel.

c. Conclusions

The inspector concluded that the emergency preparedness program was conducted in accordance with the Emergency Plan because: 1) the Emergency Plan and implementing procedures were being reviewed biennially as required and updated as needed, 2) emergency response equipment was being maintained and alarms were being tested monthly as required, 3) Letters of Agreement with the local hospital and the DOE were being updated biennially as required, 4) annual evacuation drills were being conducted as required, and 5) emergency preparedness training was being completed as required.

**10. Follow-up on Previous Open Items**

a. Inspection Scope (IP 92701)

The inspector reviewed the licensee's actions taken in response to a previously identified Inspector Follow-up Item as follows:

b. Observation and Findings

(Closed) IFI 50-274/2004-201-01 - Follow-up on the licensee's commitment to conduct biennial security tabletop exercises or drills to evaluate facility and support organization response to potential threats.

During a previous inspection at the facility, it was noted that the licensee had committed to conducting biennial security tabletop exercises or drills to evaluate the facility's and support organizations' response to potential threats. This issue was reviewed during this inspection. The inspector noted that the licensee had held a drill on April 23, 2005, which involved a simulated take-over of the facility by two terrorists. Approximately 50 people participated in the drill including GSTR staff members, Federal Protective Service officers, West Valley Metro Fire Department personnel,

and officers from the Lakewood Police Department. A critique was held following the drill and many substantive comments were made concerning ways to improve coordination and communications. This IFI is considered closed.

c. Conclusions

One IFI was reviewed, actions were taken by the licensee, and the issue was closed.

**11. Exit Meeting Summary**

The inspector reviewed the inspection results with members of licensee management at the conclusion of the inspection on June 23, 2005. 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.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Licensee Personnel

T. DeBey, Manager, GSTR and Reactor Supervisor  
V. Labson, Chief Scientist and Crystal Imaging and Characterization Team Leader  
(representing W. Day, Reactor Administrator)  
G. Lightner, Radiological Health Technician, GSTR  
D. Liles, U.S. Geological Survey RSO and Senior Reactor Operator, GSTR  
R. Perryman, Senior Reactor Operator, GSTR

### Other Personnel

T. Close, Senior Safety Officer, UCH  
J. Feist, Safety Officer, Support Services/Engineering, UCH  
M. Graf, Dispatch Site Manager, Denver Mega Center, FPS, Department of Homeland Security  
J. Strzelczyk, Associate Professor, Division of Radiological Sciences and UCH RSO,  
Department of Radiology, School of Medicine, UCH  
D. Tyndell, WMD/HAZMAT Coordinator, FPS, Department of Homeland Security

## **INSPECTION PROCEDURE (IP) USED**

IP 69001      Class II Research and Test Reactors  
IP 92701      Follow-up on Unresolved and Open Items

## **ITEMS OPENED, CLOSED, AND DISCUSSED**

### Opened

50-274/2005-201-01    IFI      Follow-up to ensure that the licensee is completing the RR&R forms so that they contain all the required information.

### Closed

50-274/2004-201-01    IFI      Follow-up on the licensee's commitment to conduct biennial security tabletop exercises or drills to evaluate facility and support organization response to potential threats.

## **PARTIAL LIST OF ACRONYMS USED**

ANSI            American National Standards Institute  
E-Plan         Emergency Plan  
FPS             Federal Protective Service  
GSTR           Geological Survey TRIGA Reactor  
IFI              Inspector Follow-up Item  
LCO             Limiting Conditions for Operation

No(s).	Number(s)
NRC	Nuclear Regulatory Commission
Rev.	Revision
RO	Reactor Operator
ROC	Reactor Operations Committee
ROM	Reactor Operations Manual
RR&R	Radioisotope Request and Receipt (form)
RS	Reactor Supervisor
RSO	Radiation Safety Officer
SRO	Senior Reactor Operator
TS	Technical Specifications
UCH	University of Colorado Hospital
USGS	United States Geological Survey