

March 31, 2016

Dr. Robert Dimeo, Director
National Institute of Standards and Technology
NIST Center for Neutron Research
U.S. Department of Commerce
100 Bureau Drive, Mail Stop 8561
Gaithersburg, MD 20899-8561

SUBJECT: NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY—NUCLEAR
REGULATORY COMMISSION ROUTINE INSPECTION REPORT
NO. 50-184/2016-201

Dear Dr. Dimeo:

From March 14–17, 2016, the U.S. Nuclear Regulatory Commission (NRC or the Commission) conducted an inspection at the National Institute of Standards and Technology Center for Neutron Research facility. The enclosed report documents the inspection results which were discussed on March 17, 2016, with you and members of your staff.

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

In accordance with Title 10 of the *Code of Federal Regulations* Section 2.390, "Public inspections, exemptions, requests for withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (Agencywide Document 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).

R. Dimeo

- 2 -

If you have any questions concerning this inspection, please contact Craig Bassett at (301) 466-4495 or by electronic mail at Craig.Bassett@nrc.gov.

Sincerely,

/RA/

Anthony J. Mendiola, Chief
Research and Test Reactors Oversight Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-184
License No. TR-5

Enclosure:
As stated

cc: See next page

National Institute of Standards and Technology

Docket No. 50-184

cc:

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

Director, Department of State Planning
301 West Preston Street
Baltimore, MD 21201

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

Director, Department of Natural Resources
Power Plant Siting Program
Energy and Coastal Zone Administration
Tawes State Office Building
Annapolis, MD 21401

President
Montgomery County Council
100 Maryland Avenue
Rockville, MD 20850

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

R. Dimeo

- 2 -

If you have any questions concerning this inspection, please contact Craig Bassett at (301) 466-4495 or by electronic mail at Craig.Bassett@nrc.gov.

Sincerely,

/RA/

Anthony J. Mendiola, Chief
Research and Test Reactors Oversight Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-184
License No. TR-5

Enclosure:
As stated

cc: See next page

DISTRIBUTION:

PUBLIC	RidsNrrDprPrta Resource	RidsNrrDprPrtb
PROB r/f	MNorris	MCompton
CBassett, NRR	NParker, NRR	AMendiola, NRR
XYin, NRR		

ADAMS ACCESSION NO.: ML16085A005

* concurrence via e-mail

NRC-002

OFFICE	NRR/DPR/PROB*	NRR/DPR/PROB*	NRR/DPR/PROB
NAME	CBassett	NParker	AMendiola
DATE	3/30/16	3/29/16	3/31/16

OFFICIAL RECORD COPY

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

Docket No: 50-184

License No: TR-5

Report No: 50-184/2016-201

Licensee: National Institute of Standards and Technology

Facility: National Bureau of Standards Reactor

Location: Gaithersburg, MD

Dates: March 14–17, 2016

Inspector: Craig Bassett

Approved by: Anthony J. Mendiola, Chief
Research and Test Reactors Oversight Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Enclosure

EXECUTIVE SUMMARY

National Institute of Standards and Technology
National Bureau of Standards Reactor
NRC Inspection Report No. 50-184/2016-201

The primary focus of this routine, announced inspection was the onsite review of selected aspects of the National Institute of Standards and Technology (the licensee's) 20 Megawatt Class I test reactor facility safety program including: (1) organization and staffing, (2) review and audit functions and design change control, (3) procedures, (4) radiation protection program, (5) environmental monitoring program, and (6) transportation of radioactive materials since the last U.S. Nuclear Regulatory Commission (NRC) inspection of these areas. The licensee's program was acceptable directed toward the protection of public health and safety and in compliance with NRC requirements.

Organization and Staffing

- The organizational structure was consistent with Technical Specifications (TSs) Sections 6.1 and 6.3.
- Health physics staffing appeared to be adequate for the current level of operations.

Review and Audit Functions and Design Change Control

- The Safety Evaluation Committee was meeting as required and reviewing the topics outlined in the TSs.
- The Safety Audit Committee was conducting annual audits as required.
- The design change program being implemented at the facility satisfied NRC requirements.

Procedures

- The procedure revision, control, and implementation program satisfied TSs requirements.

Radiation Protection Program

- Surveys were being completed and documented as required.
- Postings met the regulatory requirements specified in Title 10 of the *Code of Federal Regulations* Parts 19 and 20.
- Personnel dosimetry was being worn as required and recorded doses were within the NRC's regulatory limits.
- Radiation monitoring equipment was being maintained and calibrated as required.

- Radiation work permits were generated as needed to provide guidance and precautionary requirements for on-going and emergent work at the facility.
- The radiation protection training program being implemented by the licensee satisfied regulatory requirements.

Environmental Monitoring Program

- Effluent monitoring satisfied NRC requirements and releases were within regulatory limits.
- Effluent monitoring equipment was being calibrated as required.

Transportation of Radioactive Materials

- The program for transportation of radioactive materials satisfied U.S. Department of Transportation and NRC regulations.

REPORT DETAILS

Summary of Facility Status

The National Institute of Standards and Technology (NIST or the licensee) Center for Neutron Research (NCNR) continued to operate the 20 Megawatt test reactor, commonly known as the National Bureau of Standards Reactor (NBSR), in support of laboratory experiments and various types of research. During the inspection, the reactor was operated on the normal operations cycle.

1. Organization and Staffing

a. Inspection Scope (Inspection Procedure (IP) 69006)

To verify that the licensee was complying with the requirements specified in Technical Specifications (TSs) Sections 6.1 and 6.3, the inspector reviewed selected aspects of the following:

- Current NBSR organization
- Staffing of the NBSR Health Physics Group
- Management and staff responsibilities outlined in the TSs
- NBSR Administrative Rule 2.0, "Personnel Requirements," issued July 30, 2009

b. Observations and Findings

The inspector noted that the organizational structure had not changed since the last inspection in the area of radiation protection (refer to NRC Inspection Report No. 50-184/2015-201). The group leader of the facility Reactor Health Physics (RHP) Group continued to report to the Director, NCNR. The inspector noted that this organization was generally reflected in TSs Section 6.1.1 and Figure 6.1

The inspector also noted that the RHP group was composed of the group leader and nine staff members. Six of these individuals, including the group leader, were Health Physicists (HPs); the others were Health Physics (HP) technicians. The staffing level appeared to be adequate to support the current level of activity at the facility.

c. Conclusion

The organizational structure was consistent with TSs 6.1 and 6.3 requirements. HP staffing appeared to be adequate for the current level of operations.

2. Review and Audit Functions and Design Change Control

a. Inspection Scope (IP 69007)

The inspector reviewed the following to ensure that the requirements of TSs 6.2, "Review and Audit," and Title 10 of *Code of Federal Regulations* (10 CFR) 50.59, "Changes, Test and Experiments," were being implemented in accordance with NRC regulations:

- Safety Evaluation Committee (SEC) meeting minutes for March 2014 through the present (Meeting Nos. 379 and 380) including subcommittee meeting minutes
- NBSR Procedure No. NBSR-0007-DOC-04, "Engineering Manual," Rev. 4
- Reactor HP Procedure, HP-1.2, Revision (Rev.) A, "ALARA [As Low As Reasonably Achievable] and Program Review"
- 2015 Reactor Audit in Accordance with TSs 6.2.4 (1-4), conducted by the Audit Subcommittee of the NCNR Safety Evaluation Committee
- 2014 Annual Report of the Safety Assessment Committee for Calendar Year 2014 (the 2015 report had not been issued to date)
- Annual Review of the Reactor Radiation Protection Program, completed by the Group Leader, RHP Group, for 2014 and a portion of 2015
- Quarterly Facility Audit Reports completed by RHP Group staff members for 2015
- NBSR Engineering Change Request (ECR) No. 887, and the associated NBSR Engineering Change Notice (ECN)
- NBSR ECR No. 932, and the associated NBSR ECN
- NBSR ECR No. 943, and the associated NBSR ECN
- Operations Report No. 66, "NBSR Annual Report," for the period from January 1, 2013, through December 31, 2013, issued March 31, 2014
- Operations Report No. 67, "NBSR Annual Report," for the period from January 1, 2014, through December 31, 2014, issued April 8, 2015

b. Observations and Findings

(1) Review and Audit Functions

Records of the meetings held by the SEC from March 2014 through the date of the inspection were reviewed. It was noted that the requirements stated in TSs Sections 6.2.1 through 6.2.4 were being fulfilled. A charter had been approved for the SEC explaining the review and audit responsibilities of the committee. The meeting minutes showed that meetings were held at least semiannually as required by the SEC charter and reviews of proposed changes to the facility, experiments, and procedures were conducted by the SEC or a designated subcommittee. The minutes also indicated that the SEC provided appropriate guidance and direction for reactor operations and ensured suitable use and oversight of the reactor.

Other records reviewed by the inspector showed that annual independent audits had been conducted by designated Safety Assessment Committees as required by TS Section 6.2.5. The inspector reviewed the last two audits and noted that the audit teams provided an independent review of the NCNR reactor operations and the performance of the SEC as outlined in the TSs. The audit teams also made various observations which the licensee had addressed or was in the process of addressing.

It was noted that the facility radiation protection program was being reviewed annually as required by 10 CFR 20.1101(c). The inspector also reviewed quarterly audits of the facility completed by HP staff members. The audits included observations of facility conditions, radiation level readings and contamination surveys of various areas, and recommendations for improvements as required by procedure.

(2) Design Change Control

The inspector met with the quality assurance engineer who managed the engineering change request program. The inspector reviewed three changes pertaining to radiation protection systems and/or equipment that had been proposed and implemented. The changes were acceptably documented and reviewed in accordance with the TSs and the licensee's guidelines. It was noted that all of the ECNs included: (1) a design description, (2) safety considerations, and (3) a safety evaluation and conclusions. None of the changes met the criteria in 10 CFR 50.59 for further review or NRC approval. The design change program appeared to be implemented in accordance with NRC requirements.

c. Conclusion

The SEC was meeting as required and reviewing the topics outlined in the TSs and an annual audit was being conducted as required. The Safety Assessment Committee was conducting audits as required. The design change program was being implemented by the licensee in accordance with NRC requirements.

3. Procedures

a. Inspection Scope (IP 69008)

The inspector reviewed the following to ensure that the requirements of TS 6.4 were being met concerning written procedures for radiation protection:

- Procedure revision, review, and approval process
- SEC and subcommittee meeting minutes for March 2014 through the present
- Selected NCNR Health Physics Instructions (HPIs) for the RHP Group

- Selected NCNR Health Physics Procedures (HPPs) for NBSR personnel
- NBSR Administrative Rule 5.0, "Procedures and Manuals," issued June 5, 2010

b. Observations and Findings

The inspector noted that the RHP Group at NCNR continued to use three types of procedures. One type was high-level guidance documents developed by the NIST Office of Safety, Health, and Environment (OSHE), to implement the radiation safety program for the various NIST sites around the United States. Another type consisted of the HPPs for the NBSR issued and used by the reactor operations group. These procedures applied only to the NCNR and the work conducted there. The third set of procedures consisted of instructions, the HPIs, developed for RHP Group staff at the facility. The HPIs had been revised and reformatted using interdivisional procedures developed by the NIST Gaithersburg Radiation Safety Division (GRSD) as a basis.

c. Conclusion

Licensee HP procedure changes were being reviewed and approved as required.

4. Radiation Protection Program

a. Inspection Scope (IP 69012)

The inspector reviewed selected aspects of the following to verify compliance with 10 CFR Part 20, "Standards for Protection Against Radiation," TSs 3.7 and 4.7, and procedural requirements:

- Selected HPPs and HPIs
- ALARA Policy as outlined in various HPPs
- Copies of radiation work permits (RWPs) for 2015 and to date in 2016
- Selected HP survey records documented on "Duty HP Weekly Data Summary," sheets for 2015 and to date in 2016
- Selected HP contamination survey records documented in the Smear Data Analysis Logbook for 2015 and to date in 2016
- Quarterly Facility Audit Reports, which included survey records, completed by RHP Group staff members for 2015
- NIST Personnel Dosimetry Summary records for facility personnel for 2014 and the first three quarters of 2015 (the most recent available)
- Calibration and periodic check records for portable radiation monitoring instruments documented on "NIST HP Survey Instrument Calibration," forms
- Calibration records for area radiation monitors (ARMs) documented on the form "Confinement Area Radiation Monitors," RM 1-1
- Facility Operations Reports for the past 2 years (Nos. 66 and 67)

The inspector also observed the use of dosimetry and radiation monitoring equipment during tours of the facility. In addition, the inspector accompanied the Duty HP during surveys in the C-200, C-100, basement, and guide hall areas.

b. Observations and Findings

(1) Surveys

The inspector reviewed the results of selected surveys including: (1) daily general area radiation surveys of work areas, (2) weekly contamination surveys of controlled areas at the facility, (3) monthly general area radiation surveys of the interior uncontrolled areas and the area around the exterior of the NCNR, (4) radiation and contamination surveys conducted during the quarterly audits, and (5) contamination surveys of various items being removed from the controlled areas of the facility for 2015 and to date in 2016. The surveys had been completed as stipulated by procedure and the results were documented on the appropriate forms. Areas or items found to be contaminated were decontaminated and then surveyed again to verify there was no contamination present. The survey program appeared to be adequate.

The inspector accompanied the Duty HP during rounds of the facility to check on the radiation and contamination levels in the various areas and around experimental instruments in the facility. The Duty HP was knowledgeable and diligent in checking for any problems that might exist. The inspector also took radiation level readings in various areas. The readings noted by the inspector were similar to those found by the Duty HP and no anomalies were noted.

In addition, on various occasions during tours of the facility, the inspector noted that exit frisking was completed by facility personnel using hand and foot monitors and/or portal monitors. Frisking practices were found to be acceptable.

(2) Postings and Notices

The inspector reviewed the postings at the entrances to, and inside, various controlled areas including the C-100 area, the basement area, and the guide hall. The postings were acceptable and indicated the radiation hazards present. Other postings also showed the industrial hygiene hazards present in the areas. The facility's radioactive material storage areas were noted to be properly posted. No unmarked radioactive material was found in the facility. Copies of current notices to workers, required by 10 CFR Part 19, "Notices, Instructions And Reports To Workers: Inspection And Investigations," were posted in the main hallways of the facility as well as near or above the racks where personnel dosimeters were stored.

(3) Dosimetry and Personnel Exposure

Through direct observation of licensee staff members, the inspector determined that dosimetry was worn acceptably. An examination of the Thermoluminescent Dosimeter (TLD) results indicating radiation exposures at the facility for 2014 and the first three quarters of 2015 showed that occupational whole body doses, as well as doses to the public, were within 10 CFR Part 20 limits.

The facility also collected and analyzed urine samples for tritium bioassay purposes. The highest attributable doses in 2014 and 2015 from tritium were also within 10 CFR Part 20 limits.

The inspector also verified that NRC Form 5 letters had been prepared for those facility personnel who had received a dose greater than 100 millirem during 2014. All those who should have received a letter had been issued the appropriate letter and form. The final dose data had not yet been made available for NCNR personnel; thus, the letters/reports for the 2015 reporting period had not been issued to date.

(4) Calibration and Operation of Radiation Monitoring Equipment

The calibration of portable survey meters was typically completed by NIST GRSD personnel as well as by reactor HP staff. Calibration of fixed radiation detectors, air monitoring instruments, and other instrumentation associated with the reactor was completed by the Reactor Instrumentation Group. The calibration records of selected portable survey meters, friskers, and ARMs that were in use at the facility were reviewed. The inspector verified that portable instruments were now being calibrated annually and records were being maintained as required. The ARMs were checked monthly and calibrated annually. The inspector verified that the radiation monitoring instruments required in TSs 3.7 and 4.7 were operable and were being tested and calibrated as required.

(5) Radiation Work Permit Program

The inspector reviewed RWPs that had been written and used in 2015 and those issued to date in 2016. There were various "standing" RWPs that remained in effect for the entire year due to the repetitive nature of the work they covered. Other RWPs were generated for specific work, such as fuel storage pool activities, instrument calibration work, and fuel handling. It was noted that the controls specified in the RWPs were acceptable and applicable for the work being done. Also, the RWPs had been reviewed and approved as required.

(6) Radiation Protection Program

The radiation protection program was established and described in various licensee documents including: (1) NIST Administrative Manual, Chapter 12, "Safety," Subchapter 12.03, "Ionizing Radiation Safety;" (2) HPPs for the NBSR; and (3) HPIs for the RHP Group. These documents were revised as needed and were approved by the appropriate organizations. The inspector noted that the documents contained acceptable instructions concerning audits, safety, training, and personnel responsibilities. As noted above, the radiation protection program was reviewed each year as required by 10 CFR 20.1101(c).

The ALARA policy was also outlined in the aforementioned documents. The ALARA program provided guidance for keeping doses ALARA and was consistent with the requirements in 10 CFR Part 20. The ALARA program at the facility appeared to be effective.

(7) Radiation Protection Training

The training program was set up so that authorized beam users, pneumatic tube (rabbit) users, laboratory users, radioisotope users, and all other types of radiation workers, including NIST staff, received radiation protection training. The inspector noted that individuals who required unescorted access to the reactor facility and/or who worked with radioactive material completed a course on radiation safety principles or provided evidence that they had received such training at another facility. Refresher training was given every 2 years and completion was tied to a person's facility access authorization, which was also renewed biennially.

The inspector verified through records review, direct observation, and licensee interviews that facility employees, guest researchers, and emergency responders had received the required training at the required frequency. The inspector also participated in the biennial refresher training provided by the facility.

(8) Facility Tours

The inspector observed activities in various laboratories, the C-100 or the experimental floor area, and the guide hall. The inspector also toured other areas, including the C-200 area (which included the control room), portions of the basement area, including the pneumatic tube (rabbit) labs, and other selected areas including the spent fuel storage area and the process area. Control of radioactive material and access to radiation and high radiation areas was acceptable. As noted earlier, the postings and signs for these areas were appropriate.

c. Conclusion

The inspector determined that the radiation protection and ALARA programs being implemented by the licensee satisfied regulatory requirements. Specifically, (1) surveys were being completed as required, (2) postings met regulatory requirements, (3) personnel dosimetry was being worn as required and doses were within the NRC's regulatory limits, (4) radiation monitoring equipment was being maintained and calibrated as required, and (5) radiation protection training was provided to facility employees and guest users.

5. Environmental Monitoring Program

a. Inspection Scope (IP 69004)

The inspector reviewed selected aspects of the following to ensure that the requirements in 10 CFR Part 20 were being met and the calibrations and monitoring required in TSs 3.7 and 4.7 were being conducted:

- Selected HPPs and HPIs
- Tritium and Argon-41 release data sheets
- Building 235 environmental survey sheets
- Licensee COMPLY code calculations for 2014 and 2015
- Gammatracer data results for 2015 and to date in 2016
- NIST environmental sample analysis results for 2013 and 2014
- TLD results for environmental stations for 2015 through the date of the inspection
- Calibration records for the stack gas monitors documented on the form "Building Exhaust Stack Radiation Monitor," RM 4-1
- Calibration records for the fission product monitor documented on the form "Helium Sweep Gas Radiation Monitor," RM 3-2
- Calibration records for the secondary coolant monitor documented on the form "Secondary Cooling N16 Radiation Monitor," RM 3-1
- Calibration records for the tritium concentration monitor documented on the form "Certification of Calibration," issued by the monitor vendor, Canberra
- Facility Operations Report for the past 2 years (Nos. 66 and 67)

b. Observations and Findings

Environmental vegetation samples were collected and prepared quarterly for analysis during April through September using standard techniques in accordance with HPI 8-2. Environmental soil samples were collected and prepared quarterly for analysis during October through March. Environmental water samples were collected and prepared quarterly for analysis throughout the year. The 2014 and 2015 results of these various analyses were acceptably documented and the results, which showed no significant changes when compared with previous years, were outlined in the licensee's Annual Operations Report.

The inspector reviewed the records documenting liquid and airborne releases to the environment for the past 2 years. The inspector determined that liquid and gaseous releases continued to be monitored as required by the TSs. The resultant amount of activity that was released was calculated as required by procedure and was acceptably documented. Separate calculations were performed by the licensee using the Environmental Protection Agency's COMPLY computer code. The annual releases were determined to be within the annual dose constraints of 10 CFR 20.1101(d), 10 CFR 20.1301, and TSs limits.

On-site gamma radiation monitoring was completed using the reactor facility stack effluent monitor and various environmental TLDs in accordance with the applicable procedures. The data indicated that there were no measurable doses above any regulatory limits. These results were reported in the facility Annual Operations Reports for 2013 and 2014 (the report for 2015 was not yet available). Through observation of the facility, the inspector found no new potential release paths.

The inspector reviewed the calibration records of the stack gas, fission product, secondary coolant, and tritium monitoring systems. The systems were being calibrated annually according to procedure as required.

c. Conclusion

Effluent monitoring satisfied license and regulatory requirements and releases were within the TSs and regulatory limits. Effluent monitoring equipment was being calibrated as required.

6. Transportation of Radioactive Material

a. Inspection Scope (IP 86740)

The inspector reviewed the following documents to determine compliance with NRC and Department of Transportation (DOT) regulations governing the transport of radioactive material as specified in 10 CFR Parts 20 and 71 and 49 CFR Parts 171–178:

- Licenses of shipment recipients
- Material Transfer Request forms for 2015
- Radioactive material shipment records for 2015
- Training records for those designated as “shippers”

b. Observations and Findings

The inspector reviewed records of shipments of radioactive material made during 2015. Through this review and discussions with licensee personnel, the inspector determined that the licensee had shipped radioactive material designated as Low Specific Activity since the previous inspection in this area. The records indicated that the radioisotope types and quantities involved were

calculated and dose rates measured as required. The records also indicated that the shipping containers were appropriate and had been labeled if required. The radioactive material shipping records reviewed by the inspector had been completed and maintained as required by NRC and DOT regulations.

The inspector verified that the licensee was maintaining copies of consignees' radioactive material possession licenses as required. If the current copy of the license was not available at NCNR, the licensee was aware that they were required to contact the consignee and obtain a current copy before a shipment could be made. The licensee also maintained on file the certificates of compliance pertaining to those shipping containers that were used to ship radioactive material as required. In addition, the inspector verified that the licensee staff members assigned to complete and/or review the shipping paperwork were trained and that refresher training was being completed at least triennially as required.

c. Conclusion

The program for transportation of radioactive materials satisfied DOT and NRC regulations.

7. Follow-up on Previously Identified Issues

a. Inspection Scope (IP 92701)

The inspector reviewed the actions taken by the licensee in response to a previously identified Inspector Follow-up Item (IFI), IFI 50-184/2015-201-01.

b. Observations and Findings

During an inspection in 2015, it was noted that the organizational structure had changed since the last inspection in the area of radiation protection (refer to NRC Inspection Report (IR) No. 50-184/2014-201). As noted in the 2014-201 IR, the group leader of the NIST reactor health physics (HP) group previously reported to the NIST campus Director of Radiation Protection. Because of an organizational change at NIST, the reactor HP group leader was reassigned and directed to report to the Director, NIST Center for Neutron Research. The inspector noted that this change was not clearly reflected in the current TSs. The licensee indicated that they were preparing an amendment request to obtain NRC approval to modify the TSs to more accurately reflect the revised organizational structure. The licensee was informed that the submission of an amendment request for a change to the TSs would be followed by the NRC as an Inspector Follow-up Item.

During this inspection the inspector discussed this issue with the licensee. It was noted that the licensee had not yet submitted a letter to the NRC concerning the organization and reporting change. The licensee planned to do so this year. This issue remains open.

c. Conclusions

One IFI was discussed but remains open.

8. Exit Interview

The inspection scope and results were summarized on March 17, 2016, with members of licensee management. The inspector described the areas inspected and discussed the preliminary inspection findings. The licensee acknowledged the results of the inspection and did not identify as proprietary any of the material provided to or reviewed during the inspection.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Barvitskie	Reactor Health Physicist
P. Brand	Chief, Reactor Engineering and Chair, Hazards Review Committee
D. Brown	Senior Reactor Health Physicist and Leader, Reactor HP Group
R. Dimeo	Director, NIST Center for Neutron Research
G. Downing	Leader, Nuclear Methods Division and Chair, Safety Evaluation Committee
D. Flynn	Irradiation Coordinator and Senior Reactor Operator
D. Hughes	Chief, Reactor Operations and Chair, Procedures Review Subcommittee
F. Scarano	Reactor Health Physics Technician
M. Schwaderer	Reactor Health Physicist
R. Strader	Quality Assurance Program Manager
J. Tracy	Reactor Health Physicist

Other Personnel

J. Shupe	Certified Health Physicist, Radiation Facilities Group, Gaithersburg Radiation Safety Division, OSHE
----------	--

INSPECTION PROCEDURES USED

IP 69004:	Class 1 Research and Test Reactor Effluent and Environmental Monitoring
IP 69006:	Class 1 Research and Test Reactors Organization, Operations, and Maintenance Activities
IP 69007:	Class 1 Research and Test Reactors Review and Audit and Design Change Functions
IP 69008:	Class 1 Research and Test Reactor Procedures
IP 69012:	Class 1 Research and Test Reactor Radiation Protection
IP 86740:	Inspection of Transportation Activities
IP 92701:	Follow-up on Previously Identified Items

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Discussed

50-184/2015-201-01	IFI	Follow-up on the licensee's actions to request approval to modify the TSs to more accurately reflect the current organizational structure with the facility HP group leader reporting to the Director of the NCNR.
--------------------	-----	--

Closed

None

LIST OF ACRONYMS USED

10 CFR	Title 10 of the <i>Code of Federal Regulations</i>
ALARA	As Low As Reasonably Achievable
ARM	Area Radiation Monitor
ECN	Engineering Change Notice
ECR	Engineering Change Request
GRSD	Gaithersburg Radiation Safety Division
HP	Health Physics/Health Physicist
HPI	Health Physics Instruction
HPP	Health Physics Procedure
IP	Inspection Procedure
NBSR	National Bureau of Standards Reactor
NCNR	NIST Center for Neutron Research
NIST	National Institute of Standards and Technology
NRC	U.S. Nuclear Regulatory Commission
RHP	Reactor Health Physics
RWP	Radiation Work Permit
SEC	Safety Evaluation Committee
OSHE	Office of Safety, Health, and Environment
TLD	Thermoluminescent Dosimeter
TSs	Technical Specifications