July 30, 2007

Mr. M. J. Curley, Director
Leslie C. Wilbur Nuclear Reactor Facility
Worcester Polytechnic Institute
100 Institute Road
Worcester, MA 01609

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 50-134/2007-201

Dear Mr. Curley:

This letter refers to the routine, announced inspection conducted on July 10-12, 2007, at the Worcester Polytechnic Institute Leslie C. Wilbur Nuclear Reactor Facility. The enclosed report documents the inspection results, which were discussed on July 12, 2007, with Dr. John Orr, Provost, and other members of your staff.

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, the NRC has identified a violation of NRC requirements. The violation is cited in the enclosed Notice of Violation (Notice). The circumstances surrounding it are described in detail in the subject inspection report. You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response in accordance with its policies to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

Should you have any questions concerning this inspection, please contact Marcus H. Voth at 301-415-1210.

Sincerely,

/RA/
Michael J. Case, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-134
License No. R-61
Enclosures:
1. Notice of Violation
2. NRC Inspection Report No. 50-134/2007-201
cc w/enclosures: See next page

cc:

City Manager
City Hall
455 Main Street, Room 309
Worcester, MA 01608

Dr. John A. Orr
Provost *ad interim* and Dean of Undergraduate Studies
Office of Academic Affairs
Worcester Polytechnic Institute
100 Institute Road
Worcester, MA 01609

Frank Diliado III, District Chief
Worcester Fire Department
Worcester, MA 01608

Department of Environmental Protection
One Winter Street
Boston, MA 02180

Director
Radiation Control Program
Department of Public Health
90 Washington Street
Dorchester, MA 02121

Nuclear Preparedness Manager
Massachusetts Emergency Management Agency
40 Worcester Road
Framingham, MA 01702-5399

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

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ENCLOSURE 1

NOTICE OF VIOLATION

Leslie C. Wilbur Nuclear Reactor Facility
Worcester Polytechnic Institute

Docket No. 50-134
License No. R-61

During an NRC inspection conducted on July 10-12, 2007, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR 50.54(q) states, “A licensee authorized to possess and/or operate a research reactor or a fuel facility shall follow and maintain in effect emergency plans which meet the requirements in appendix E to this part.” Contrary to this requirement, at the time of the inspection the licensee did not meet their emergency plan commitments. Specifically, two of the three positions designated in the plan to be the Emergency Director were no longer staffed and the third designee was not readily available to perform in that capacity had there been an emergency.

This is a Severity Level IV violation (Supplement VIII).

Pursuant to the provisions of 10 CFR 2.201, the Worcester Polytechnic Institute is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the responsible inspector, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or Demand for Information may be issued as to why the facility license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC’s document system (ADAMS), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. ADAMS is accessible from the NRC Web site at (the Public Electronic Reading Room) http://www.nrc.gov/reading-rm/adams.html. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed

copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated at Rockville, Maryland
this

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

Docket No:	50-134
License No:	R-61
Report No:	50-134/2007-201
Licensee:	Worcester Polytechnic Institute
Facility:	Leslie C. Wilbur Nuclear Reactor Facility
Location:	Worcester, Massachusetts
Dates:	July 10-12, 2007
Inspector:	Marcus H. Voth, Lead Stephen C. Pierce
Approved by:	Michael J. Case, Director Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

Worchester Polytechnic Institute
Leslie C. Wilbur Nuclear Reactor Facility
NRC Inspection Report No. 50-134/2007-201

The primary focus of this routine, announced inspection was the on-site review of selected aspects and activities at the licensee's Class II research reactor, considering the fact that the reactor fuel had been moved to fuel storage racks in the pool, the licensee had committed to proceed toward decommissioning, and the last Senior Reactor Operator had left the organization. Relevant aspects of the following areas were inspected: organization and staffing, operations logs and records, procedures, operator requalification, surveillance and limiting conditions for operations, experiments, health physics, design changes, committees, audits and reviews, emergency preparedness, maintenance logs and records, fuel handling, transportation, and follow-up of a previously identified item.

The licensee's programs were acceptably directed toward the protection of public health and safety, and in compliance with NRC requirements with the exceptions noted below.

Organization and Staffing

- The organization and staffing were consistent with Technical Specification requirements at the time of the inspection; all fuel was removed form the reactor as an initial step toward decommissioning.

Operations Logs and Records

- Operational activities were consistent with applicable Technical Specification requirements.

Procedures

- Procedural control and implementation satisfied Technical Specification requirements.

Surveillance and Limiting Conditions for Operations

- The licensee's program for completing surveillance inspections satisfied the Technical Specification.

Experiments

- The Technical Specification requirements of experiments were being met.

Health Physics

- The licensee's health physics program was in compliance with Technical Specification and regulatory requirements.

Design Changes

- The licensee maintained a program for the review of facility changes pursuant to 10 CFR 50.59.

Committees, Audits and Reviews

- Review and oversight functions required by the Technical Specifications were acceptably completed by the Radiation, Health, and Safeguards Committee.

Emergency Preparedness

- Emergency preparedness drills were conducted in accordance with the requirements stipulated in the Emergency Plan.
- Emergency support groups (fire and police) appeared well prepared to perform their duties as described in the Emergency Plan.
- The failure to have an Emergency Director available as stated in the Emergency Plan constitutes a violation (VIO 50-134/2007-201-01).

Maintenance Logs and Records

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

Fuel Handling

- Fuel handling activities for the final core offload was completed and documented as required by Technical Specification and facility procedures.

Transportation

- No transportation activities were performed under the reactor license since the previous inspection.

Follow-up of Previously Identified Issues

- Open item IFI 50-134/2005-201-01, concerning the Radiation, Health, and Safeguards Committee review of Health Physics Procedure 20, was closed.

REPORT DETAILS

Summary of Facility Status

At the time of this announced routine inspection the licensee's Leslie C. Wilbur Nuclear Reactor Facility (LCWNRF or NRF), licensed to operate at a maximum steady-state thermal power of ten kilowatts (10 kW), had ceased operation and was being prepared for decommissioning. In a June 27, 2007 letter, the licensee had informed the Nuclear Regulatory Commission (NRC) of the following:

- The Reactor Director (RD), S. LaFlamme, resigned effective June 30, 2007. [This left Worcester Polytechnic Institute (WPI) with no licensed Senior Reactor Operator (SRO) on its staff.]
- Effective July 1, 2007, WPI Compliance Officer M. Curley, was appointed RD.
- The licensee's intent was to move the reactor fuel into storage positions in the pool before the departure of the current RD.
- The licensee certified that the reactor would not be operated after June 30, 2007.
- Arrangements were being pursued to reinstate the SRO license of R. Steele, a full time WPI employee whose SRO license had recently expired.
- An application for a possession only amendment to the license was being prepared.
- Steps had been initiated to remove reactor fuel from the site as soon as possible.
- The licensee intended to decommission, engaging TLG Services, Inc. as their contractor.

During the July 10-12, 2007 inspection the NRC inspectors interacted primarily with the campus Radiological Safety Officer (RSO) and the Assistant Radiological Safety Officer (ASRO) who had been a de facto transition team with the out-going RD. Both of these individuals were members of the Radiation, Health, and Safeguards Committee (RHSC), the ARSO also being the SRO candidate noted above. The newly appointed RD was out of town for the duration of the inspection.

1. Organization 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 Section 4 of the Technical Specifications (TS), License Amendment No. 10, dated September 1988, were being met:

- Worcester Polytechnic Institute organizational structure and staffing
- management responsibilities and staff qualifications
- interim arrangements in preparation for decommissioning
- L. Bobek, Independent Consultant, WPI NRF Staffing Assessment, April 14, 2006
- July 5, 2007 letter, from Provost J. Orr to M. Curley, appointing Mr. Curley as RD and a member of the RHSC

b. Observations and Findings

The NRF organizational structure consisted of faculty and staff members from throughout the WPI organization, appointed by and reporting to the Provost for matters related to the NRF. Included were the RD, the chairman and members of the RHSC, and the RSO and ARSO. Pursuant to the TS Section 5.1, the RD was responsible to the Provost and the RHSC for conformance to the facility license provisions and all local and NRC safety regulations. This organizational structure conformed to TS Sections 5.1 Facility Administrator, 5.2 Radiation, Health, and Safeguards Committee, and 5.3 Radiological Safety Officer. However, the position entitled Dean of Faculty and Vice President in the TS was entitled Provost.

When WPI had a Nuclear Engineering Program embedded in the Mechanical Engineering Department, the RD reported to the Head of the Mechanical Engineering Department. At the time of the inspection the Nuclear Engineering Program had been eliminated and the RD no longer reported to Mechanical Engineering.

Within the NRF organization there were effectively no NRC licensed operators available at the time of the inspection. The previous RD held an SRO license but had resigned from WPI; the newly appointed RD did not hold an SRO license. One student who held an SRO license had left campus permanently. Five students held RO licenses but the licensee stated that it was not the NRF's intention to use them in the future. However, license termination requests for these seven licensed ROs and SROs had not been initiated pursuant to 10 CFR 50.74. The licensee had arranged with the NRC to administer an SRO examination for their ARSO in August of 2007. This individual previously held an SRO license for the NRF but relinquished it effective May 9, 2007.

In the previous inspection (Inspection Report No. 50-134/2005-201) the inspector observed that the facility staffing situation was tenuous with low man-power levels; the inspector did not observe any safety issues associated with the staffing problems, but noted that potential. With the commitment to terminate operations and decommission the facility the workforce demands have changed. The licensee stated intentions to use the decommissioning contractor in place of the reactor operating organization to the extent possible, realizing that WPI remains the licensee and retains ultimate responsibility for all license and regulatory requirements. Oversight by the RHSC appeared to be unaffected by changes in the reactor operating organization. Likewise, the radiological safety program remained intact through the continuing oversight of the RSO and ARSO. The NRC will continue to monitor staffing of the NRF to evaluate whether further regulatory oversight is necessary.

The licensee reported that an amendment request was imminent, requesting the NRC to issue a possession-only license amendment to reflect steps underway toward decommissioning.

c. Conclusions

The organization and staffing were consistent with TS requirements at the time of the inspection; all fuel was removed from the reactor as an initial step toward decommissioning.

2. Operation Logs and Records

a. Inspection Scope (IP 69001)

The inspector reviewed the following to ensure that selected records were maintained as required by TS Sections 5.6 and 5.8:

- Licensee Annual Reports, dated January 27, 2006 and January 30, 1007
- WPI Nuclear Reactor Facility Logbook XIII for the period October 25, 2004 to June 27, 2007
- Procedure OP-01, Check-out and Operation, Revision 3, dated October 2001

b. Observations and Findings

Operating logs and records indicated that since the last inspection the reactor had been operated in a manner consistent with past operations and TS requirements. The reactor logbook recorded that on June 27, 2007, all reactor fuel was removed from the reactor grid plate and placed in storage racks in the pool. Annual reports covering the period through 2006 had been submitted in accordance with TS 5.8.

c. Conclusions

Operational activities were consistent with applicable TS requirements.

3. Procedures

a. Inspection Scope (IP 69001)

The inspector audited the following to ensure that the requirements of TS Section 5.5 were being met concerning written procedures:

- WPI Procedures Manual
- administrative controls
- procedural implementation

b. Observations and Findings

The inspector determined that written procedures were prepared for the activities delineated in TS Section 5.5 and approved by the RHSC before they were implemented. The clarity and detail in the procedures was acceptable. The RHSC demonstrated a level of involvement and oversight representative of that needed for the decommissioning process.

c. Conclusions

Procedural control and implementation satisfied TS requirements.

4. Surveillance and Limiting Conditions for Operation

a. Inspection Scope (IP 69001)

The inspector reviewed the following to ensure that the surveillance requirements specified in TS Section 3.0 were being met:

- surveillance, calibration, and test data sheets and records for 2006
- WPI Nuclear Reactor Facility Logbook XIII for the period October 25, 2004 to June 27, 2007
- RHSC records book for 2006 to present

b. Observations and Findings

The inspector noted that selected daily, quarterly, semiannual, and annual checks, tests, and/or calibrations for TS-required surveillance and limiting conditions for operation (LCO) verifications were completed as required. The records and logs were noted to be complete and were being maintained as required. Documentation of all completed surveillances were submitted to the RHSC to ensure that there was effective oversight of facility operations. The checklists for each of the surveillances provided clear and concise documentation and control of reactor operational tests and surveillances.

A number of the semi-annual and annual surveillance requirements cannot be done in the permanent shutdown condition of the reactor because they require fuel in the reactor or the presence of a licensed SRO. These surveillances were last performed the first half of 2007 and the last half of 2006, respectively. The licensee stated intentions to submit a timely request for a possession only license amendment to avoid being in violation of TS requirements later this year.

c. Conclusions

The licensee's program for completing surveillance inspections satisfied the TS.

5. Experiments

a. Inspection Scope (IP 69001)

The inspector reviewed the following to verify compliance with TS Section 2.3:

- Letter from D. Adams, M. Curley, and J. Solomon (WPI) to USNRC regarding termination of reactor operations, June 27, 2007

b. Observations and Findings

The inspector verified that in its permanently shut down condition no experiments were being performed under the provisions of TS Section 2.3 Experiments.

c. Conclusions

The TS requirements of experiments were being met.

6. Health Physics Program

a. Inspection Scope (IP 69001)

The inspector reviewed the following to verify compliance with 10 CFR Part 19 and Part 20 and TS Sections 3.3 and 5.5:

- WPI RHSC Radiation Regulations Memorandum, dated October 1995
- Health Physics Procedure 03, "Survey Instrument Calibration", Revision 4, dated July 1996
- Landauer personnel dosimetry results for 2006 and 2007
- Reactor Visitor Dosimetry Log for 2007

b. Observations and Findings

The RSO and the ARSO applied the radiation protection program uniformly to the two licensed activities on campus (broad scope and the reactor). The licensee's program for radiological health and safety related to the reactor license was evaluated during this inspection.

Surveys of radiation levels and radioactive contamination throughout the NRF were performed monthly in accordance with written procedures. Results of the surveys were recorded and filed per procedure. Results were reviewed by the RSO and summaries of completed surveys were reported to the RHSC. The inspector verified that notices to workers required by 10 CFR Part 19 were current and posted in prominent locations. Radioactive material and radiation areas were found to be properly labeled and posted as required by 10 CFR Part 20.

Survey instruments and other laboratory measurement equipment was either calibrated on site per written procedure or sent offsite for calibration. The inspector verified that in the random sample of devices checked the calibration was current in every case.

The inspector reviewed the Reactor Visitor Dosimetry Log and found that doses recorded were minimal, on the order of 0.01 millirem per day. Personnel dosimetry records for radiation workers at the reactor were also reviewed and doses found to be minimal. The highest exposed individual in the quarter from January 15 through April 14, 2007, received 0.015 millirem.

The licensee maintained a radiation protection program incorporating as low as reasonably achievable (ALARA) principles which included training of radiation workers, periodic audits of the program, and oversight by the RHSC.

The licensee verified compliance with gaseous effluent limits from the reactor using the EPA COMPLY code, level 1, conservatively based in operation of the NRF at full power (10 kilowatts) 200 hours per year.

c. Conclusions

The licensee's health physics program was in compliance with TS and regulatory requirements.

7. Design Changes

a. Inspection Scope (IP 69001)

In order to verify that any modifications to the facility were consistent with 10 CFR 50.59, the inspector reviewed selected aspects of:

- Maintenance Log for the period January 1, 2006 to July 10, 2007
- Licensee Annual Report for 2006, submitted January 30, 2007

b. Observations and Findings

The licensee had a program in place for reviewing changes but had not made a change requiring an evaluation pursuant to 10 CFR 50.59 since 2005; that change reviewed as part of the previous inspection.

c. Conclusions

The licensee maintained a program for the review of facility changes pursuant to 10 CFR 50.59.

8. Committees, Audits, and Reviews

a. Inspection Scope (IP 69001)

The inspector reviewed the following to ensure that the requirements of TS Section 5.2 were being completed by the RHSC:

- WPI RHSC Radiation Regulations Memorandum, October 1995
- WPI RHSC Radiation Regulations Memorandum Appendix B, “RHSC Procedural Rules”, October 1995
- WPI RHSC Radiation Regulations Memorandum Appendix C, “Reports and Meetings Relative to the Nuclear Reactor Facility”, October 1995
- RHSC minutes for meetings held during 2006 and 2007

b. Observations and Findings

The RHSC met quarterly as required by TS with a quorum present in all cases. The membership satisfied the committee’s procedural rules and the TSs. One member of the RHSC resigned in July of 2006 and a replacement was named promptly. RHSC

members and the RHSC chairman were appointed to three year terms by letter from the Provost. The full time academic and administrative appointments of RHSC members at the time of the inspection were:

Manager of Environmental and Occupational Safety (RHSC Chairman)
University Compliance Officer (RD)
Professor of Biology and Biotechnology (RSO)
Technical Operations Manager, Department of Physics (ARSO)
Assistant Provost for Academic Affairs and Professor of English
Assistant Professor of Chemistry and Biochemistry
Assistant Professor of Biology and Biotechnology

The WPI RHSC Radiation Regulations Memorandum met the TS requirement for written procedures. The inspector considered the meeting minutes to be very complete and timely. Records included material reviewed at RHSC meetings as evidence that the committee met the TS requirement for review of operations, equipment performance, records, and procedures.

c. Conclusions

Review and oversight functions required by the TSs were acceptably completed by the RHSC.

9. Emergency Preparedness

a. Scope (IP 69001)

The inspector reviewed selected aspects of to verify compliance with TS and regulatory requirements:

- Emergency Preparedness Plan (E-Plan) for the Worcester Polytechnic Institute Nuclear Reactor Facility, dated February 1994
- Letters of Agreement with support agencies
- Memo from WPI Provost J. Orr to R. Steele (WPI ARSO) and D. Adams (WPI RSO), Interim Emergency Directors for the Nuclear Reactor, July 12, 2007

b. Observations and Findings

The inspector reviewed the E-Plan in use at the LCWNRF and verified that the E-Plan was being properly implemented at the facility. The inspector reviewed the emergency facilities, instrumentation, and equipment and verified that the off-site emergency response equipment was as described in the E-Plan. The inspector verified that letters of agreement had been established with the City of Worcester Police Department and Fire Department, and the University of Massachusetts Medical School.

Emergency evacuation drills had been conducted semi-annually as required by the E-Plan. All drills held were simple evacuations of the Stoddard-Washburn building. Critiques were written and discussed following the drills to document any problems identified during the exercises. The licensee has conducted orientation tours for the WPI Campus Police and the Worcester Fire Department.

The inspector visited the WPI Campus Police Operations Center on July 11, 2007, and found that they maintained vigilance for potential emergency conditions at the NRF and were prepared to respond to emergencies.

The inspector visited the City of Worcester Fire Department on July 11, 2007, and observed the supplies and equipment there that would be available in case of an emergency. There appeared to be a good working relationship between the licensee and this support organization. The inspector confirmed that the Fire Department was well prepared to handle in a highly professional manner emergencies that could occur at the LCWNRF.

The licensee's Emergency Preparedness Plan (E-Plan) designates numerous responsibilities for an Emergency Director in the event of an emergency. Section 3.1.1 of the E-Plan states that the Reactor Facility Director shall be the Emergency Director with a line of succession to include the Director of the WPI Nuclear Engineering Program and the SRO with most seniority. At the time of the inspection the Reactor Director was out of town and unavailable, the WPI Nuclear Engineering Program had been eliminated years earlier, and there were no SROs available. (The previous RD, who held an SRO, had recently resigned and a student SRO had left campus.) Upon being told of this deficiency the provost promptly issued a memo designating the ARSO and RSO as Interim Emergency Directors in the line of succession during the absence of the RD. The memo stated that it would remain in effect until a modified E-Plan could be submitted by WPI and approved by the NRC. Since the newly-designated Reactor Director was not present during the inspection the inspector was unable to assess his readiness to assume the responsibility of Emergency Director. The licensee was informed that the absence of an Emergency Director was an apparent violation (VIO) of 10 CFR 50.54(q) (VIO 50-134/2007-201-01).

c. Conclusions

Emergency preparedness drills were conducted in accordance with the requirements stipulated in the Emergency Plan. Emergency support groups (fire and police) appeared well prepared to perform their duties as described in the Emergency Plan. The failure to have an Emergency Director available as stated in the Emergency Plan constitutes a violation (VIO 50-134/2007-201-01).

10. Maintenance Logs and Records

a. Inspection Scope (IP 69001)

To verify that the licensee was meeting the requirements of TS Section 5 pertaining to maintenance, the inspector reviewed selected aspects of:

- Licensee Annual Reports, dated January 27, 2006 and January 30, 2007
- Maintenance Logbook #4 for the period January 1, 2006 to July 10, 2007

b. Observations and Findings

During a facility tour, the inspector noted that Control Room and Reactor Room equipment was operational and appeared to be well maintained. Maintenance practices and procedures were in effect, supporting the equipment presently required by the TS.

c. Conclusions

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

11. Fuel Handling

a. Inspection Scope (IP 69001)

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

- WPI Nuclear Reactor Facility Logbook XIII for the period October 25, 2004 to June 27, 2007
- fuel handling equipment and instrumentation
- Procedure OP-03, “Fuel Unloading Procedure”, Revision 2, dated July 2001

b. Observations and Findings

The inspector observed that all fuel had been removed from the reactor grid plate as the first step toward permanent shut down of the reactor in preparation for decommissioning. Records and logbook entries indicated that approved procedures had been used and that each fuel element was properly inventoried by serial number and location.

c. Conclusions

Fuel handling activities for the final core offload was completed and documented as required by TS and facility procedures.

12. Transportation

a. Inspection Scope (IP 86740)

To verify compliance with TS and procedural requirements, the inspector interviewed licensee personnel regarding the shipment of radioactive material.

b. Observations and Findings

The licensee stated that radioactive material shipments are generally not performed under the reactor license. The most recent shipments under the R-61 license were the receipt of new low enriched reactor fuel on December 20, 1988, and the offsite

shipment of irradiated highly enriched reactor fuel on August 9, 1989, which were reviewed in pervious inspections.

c. Conclusions

No transportation activities were performed under the reactor license since the previous inspection.

13. Follow-up of Previously Identified Items

a. Inspection Scope (IP 92701)

The inspector reviewed the RHSC records for the approval of Health Physics Procedure 20, RSO Reactor Facility Inspection, Revision 1, dated October 1993.

b. Observations and Findings

During the previous inspection an NRC inspector noted that the licensee was performing facility inspections on a monthly frequency while the procedure of record called for weekly inspections. While the licensee recalled approving the procedural change to monthly, this could not be verified in RHSC documentation and was treated as an inspector follow-up item (IFI 50-134/2005-201-01).

Following the previous inspection the RHSC reviewed and approved the procedure for monthly inspections. The inspector verified that RHSC documentation of the meeting following the inspection recorded approval of the change, supporting closure of the open item.

c. Conclusions

The open item, IFI 50-134/2005-201-01, concerning RHSC review of Health Physics Procedure 20 was closed.

14. Exit Meeting

The inspector presented the inspection results to licensee management at the conclusion of the inspection on July 12, 2007, including the apparent violation identified in Section 9 of this report. The licensee acknowledged the findings presented.

PARTIAL LIST OF PERSONS CONTACTED

D. Adams, Radiation Safety Officer
F. Diliado III, District Chief, Worcester Fire Department
J. Dylewicz, Campus Police Officer
D. Messier, Chairman, Radiation, Health, and Safeguards Committee
J. Orr, Provost *ad interim* and Dean of Undergraduate Studies
E. Parzych, Campus Police Dispatcher
R. Steele, Assistant Radiation Safety Officer

INSPECTION PROCEDURES USED

IP 69001	CLASS II NON-POWER REACTORS
IP 86740	TRANSPORTATION
IP 92701	FOLLOW-UP

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-134/2007-201-01 VIO	The Reactor Director, the sole individual designated as Emergency Director in the E-Plan who remains in the licensee's organization, was not available to respond to an emergency

Closed

50-134/2005-201-01 IFI	Follow-up to verify that the licensee received RHSC approval for the current version of the Health Physics procedures that are being used.

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
ALARA	As Low As Reasonably Achievable
ARSO	Assistant Radiation Safety Officer
CFR	Code of Federal Regulations
E-Plan	Emergency Preparedness Plan
IFI	Inspector Follow-up Item
IP	Inspection Procedure
kW	kilowatts
LCO	Limiting Conditions for Operations
LCWNRF	Leslie C. Wilbur Nuclear Reactor Facility
LOA	Letter of Agreement
NRC	Nuclear Regulatory Commission
NRF	Nuclear Reactor Facility
PARS	Publicly Available Records

RD	Reactor Director
RHSC	Radiation, Health, and Safeguards Committee
RSO	Radiation Safety Officer
RO	Reactor Operator
SRO	Senior Reactor Operator
TS	Technical Specifications
WPI	Worcester Polytechnic Institute
VIO	Violation