July 31, 2009

Mr. Richard L. Holm
Reactor Administrator
College of Engineering
University of Illinois at Urbana-Champaign
310 Engineering Hall, MC-266
1308 West Green Street
Urbana, IL 61801

SUBJECT: NRC INSPECTION REPORT 050-00151/08-01(DNMS) - UNIVERSITY OF ILLINOIS NUCLEAR REACTOR

Dear Mr. Holm:

On July 17, 2009, the NRC completed inspection activities at the permanently shut down University of Illinois Nuclear Reactor. The purpose of the inspection was a routine inspection to evaluate current reactor activities and discuss planned decommissioning activities. At the conclusion of the on-site inspection on July 17, the inspectors discussed the inspection findings with you.

This inspection consisted of an examination of current activities at the Nuclear Reactor as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection included a selective examination of procedures and representative records, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations.

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 in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). The NRC's document system is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

/RA/

Christine Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

Docket No. 50-151
License No. R-115

Enclosure:
NRC Inspection Report 050-00151/08-01(DNMS)

cc w/encl: Daren Perrero, IEMA
James Stubbins, University of Illinois

We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

/RA/

Christine Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

Docket No. 50-151
License No. R-115

Enclosure:
NRC Inspection Report 050-00151/08-01(DNMS)

cc w/encl: James Stubbins, University of Illinois
Daren Perrero, IEMA

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	050-00151
License No:	R-115
Report No:	050-00151/08-01(DNMS)
Licensee:	University of Illinois
Facility:	Nuclear Reactor
Location:	Urbana, Illinois
Date:	July 17, 2009
Inspectors:	William Snell, Senior Health Physicist Jeremy Tapp, Health Physicist
Approved by:	Christine Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

University of Illinois
Nuclear Reactor
NRC Inspection Report 050-00151/08-01(DNMS)

These inspection activities included a routine inspection to evaluate current routine reactor activities and discuss planned decommissioning activities. During the inspection the inspectors toured the nuclear reactor facilities and examined licensee records and procedures.

Decommissioning Activities

- The licensee's activities to maintain the Nuclear Reactor Laboratory were effective in controlling contamination and radioactive materials, with radiation postings and boundaries adequate and appropriate. Reactor Committee Meetings, program audits, emergency drills, surveillances, and recordkeeping, were all being conducted as required. (Section 1.0)

Report Details

1.0 Decommissioning Activities (69013)

1.1 Inspection Scope

The inspectors toured the facility to assess the radiation protection program and evaluate the licensee's postings and control of radioactive material and contamination. The inspectors reviewed the following records of procedure surveillances and Technical Specification requirements: Nuclear Reactor Laboratory Surveillance Procedure 3 (NRLSP-3) Monthly Checklist, for 2007, 2008, and 2009 through the month of July; NRLSP-4 Operations Quarterly Checklist, for 2007, 2008, and the 1st and 2nd Quarters of 2009; Nuclear Reactor Laboratory Surveillance Health Physics Procedure 2 (NRLHPP-2) Monthly Verification of Radiation Monitor Alarm Set Points, for 2007, 2008, and 2009 through the month of July; NRLHPP-08 Ludlum ARM Calibration Data Sheet, for 2007, 2008, and 2009 through the month of July; and the Reactor Committee Meeting Minutes required by Section 6.2.1 of the Technical Specifications. The inspectors also reviewed Section 9.2 of the Nuclear Reactor Laboratory Emergency Plan and Emergency Plan Implementing Procedure (EPIP) 13, regarding annual drill requirements and the personnel emergency response list, and the 2008 Annual Report: Illinois Advanced TRIGA Reactor License No. R-115/Docket No. 50-151.

1.2 Observations and Findings

The licensee's activities were limited to routine maintenance and surveillances. Since the reactor had been permanently shut down and all reactor fuel removed, area dose rates throughout most parts of the reactor facility were minimal. A high activity radium-beryllium source, which was being stored in an underground storage vault during the last inspection (February 2007), was disposed of through the Department of Energy. The licensee had roped off and posted an area to control access to stored activated graphite. All boundaries and postings were appropriate for the existing radiological conditions.

With all the fuel removed, there were no radiological surveillances specifically required by either the license or the Technical Specifications. However, to meet the license requirement to comply with 10 CFR Part 20, the licensee conducted surveys that were reasonable under the circumstances. Specifically, the licensee performed various weekly, monthly and quarterly surveillances, including quarterly contamination surveys and radiation surveys within the facility. Records of surveillances completed pursuant to NRLSP-3, NRLSP-4, NRLHHP-2, and NRLHPP-8, indicated all surveillances had been conducted as committed to with no significant issues identified. Annual emergency preparedness drills were conducted in 2007 and 2008, which included participation and response by the police and fire departments. The personnel response list was determined to be reflective of current University faculty and staff. Semiannual Reactor Committee Meetings were determined to be conducted as required with the necessary quorum, and the results documented. The semiannual Meeting Minutes were reviewed for 2007, 2008, and the first half of 2009. The content of the minutes indicated the Reactor Committee was reviewing pertinent issues as specified in Section 6.2.2 of the Technical Specifications. The content and scope of the 2008 Annual Report adequately addressed pertinent Nuclear Reactor Laboratory issues.

Discussions regarding the pending decommissioning of the reactor facilities indicated the time-table to begin the decommissioning project had not changed. The funds for the decommissioning have been allocated for fiscal year 2011, which begins July 1, 2010. The licensee's goal is to select a decommissioning contractor by the spring of 2010 with work beginning by the fall of 2010. The decommissioning process is expected to be completed in approximately one year, once begun.

2.0 Conclusion

The licensee's activities to maintain the Nuclear Reactor Laboratory were effective in controlling contamination and radioactive materials, with radiation postings and boundaries adequate and appropriate. Reactor Committee Meetings, program audits, emergency drills, surveillances, and recordkeeping, were all being conducted as required.

3.0 Exit Meeting Summary

The inspectors presented the inspection findings to the Reactor Administrator at the conclusion of the onsite inspection on July 17, 2009. The licensee indicated that none of the information discussed was proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

*Richard Holm, Reactor Administrator

*Person present at the exit meeting on July 17, 2009.

INSPECTION PROCEDURES USED

IP 69013 Research and Test Reactor Decommissioning

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened	None
Closed	None
Discussed	None

PARTIAL LIST OF DOCUMENTS REVIEWED

Licensee documents reviewed and utilized during the course of this inspection are specifically identified in the “Report Details” above.

LIST OF ACRONYMS USED

ARM	Area Radiation Monitor
CFR	Code of Federal Regulations
DNMS	Davison of Nuclear Materials Safety
EPIP	Emergency Plan Implementing Procedure
NRC	Nuclear Regulatory Commission
NRLHPP	Nuclear Reactor Laboratory Health Physics Procedure
NRLSP	Nuclear Reactor Laboratory Surveillance Procedure
TRIGA	Training, Research, Isotopes, General Atomic