

December 6, 2007

Mr. Terry Alexander, Executive Director  
Department of Occupation Safety & Environmental Health  
1239 Kipke Drive  
University of Michigan  
Ann Arbor, MI 48109-1010

SUBJECT: NRC INSPECTION REPORT 050-00002/07-01 (DNMS)  
FORD NUCLEAR REACTOR

Dear Mr. Alexander:

On November 14, 2007, the NRC completed inspection activities at the Ford Nuclear Reactor. The purpose of the inspection was to determine whether the decommissioning activities were conducted safely and in accordance with NRC requirements. Specifically, during onsite inspections on June 28 and November 13-14, 2007, the inspector evaluated decommissioning performance and radioactive waste management. At the conclusion of the on-site inspections on June 28 and November 14, 2007, the inspector discussed the inspection findings with the Reactor Manager.

This inspection consisted of an examination of decommissioning activities at the Ford 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 consisted of 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 for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

T. Alexander

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

Sincerely,

**/RA/**

Patrick L. Loudon, Chief  
Decommissioning Branch

Docket No. 50-002  
License No. R-28

Enclosure:  
Inspection Report 050-00002/07-01(DNMS)

cc w/encl: S. L. Ceccio, University of Michigan  
C. W. Becker, University of Michigan  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 50-002

License No. R-28

Report No. 050-00010/07-01(DNMS)

Licensee: University of Michigan

Facility: Ford Nuclear Reactor

Location: Ann Arbor, Michigan

Dates: June 28, 2007, and  
November 13-14, 2007

Inspector: William G. Snell, Senior Health Physicist  
Peter Lee, Ph.D., CHP, Health Physicist

Approved by: Patrick L. Loudon, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

Enclosure

## **EXECUTIVE SUMMARY**

### **University of Michigan - Ford Nuclear Reactor NRC Inspection Report 050-00002/07-01(DNMS)**

This routine decommissioning inspection included a review of the licensee's current performance related to decommissioning activities and radioactive waste management.

#### **Research and Test Reactor Decommissioning**

The inspectors determined that the licensee had complied with NRC and Department of Transportation regulations for shipments of radioactive waste. The inspectors determined that the licensee continued to be effective in controlling personal exposures, and that the licensee's program for the unrestricted release of equipment and materials was adequately implemented.

The licensee was adequately implementing the Review Committee to review decommissioning activities.

## Report Details<sup>1</sup>

### **1.0 Research and Test Reactor Decommissioning (69013)**

#### **1.1 Inspection Scope**

The inspectors evaluated radioactive waste shipments, reviewed radioactive waste shipping documents, and interviewed the individual responsible for waste shipments, to ensure compliance with NRC and U.S. Department of Transportation (DOT) regulations. The inspectors reviewed the external exposure records for licensee and contractor personnel performing core borings and cutting concrete blocks from the reactor wall, and reviewed the results of air sampling during the core borings and concrete block cutting. The inspectors reviewed the procedures and survey reports from the free release of equipment and materials.

The inspectors reviewed the conduct of the licensee's Review Committee.

#### **1.2 Observations and Findings**

During November 2008, the licensee made several LSA-1 shipments of concrete blocks from the dismantlement of the reactor pool wall, and slurry from cutting the concrete blocks. The licensee's shipping manifest showed that personnel packaged, labeled, and marked each shipping container according to the DOT and 10 CFR Part 71 transportation requirements. The licensee verified that the results of radiation and removable contamination levels were within applicable limits. The waste manifest included all required information. The inspectors observed two rail cars being readied for shipment of concrete blocks. The concrete blocks were adequately blocked and braced and the rail cars covered with tarps prior to shipment.

The highest external radiation dose received by an individual during 2007 was 153 mrem. The general air sampling during core boring and cutting the concrete blocks did not indicate workers received any positive internal exposures.

The licensee conducted the surveys in accordance with its procedures and did not indicate any positive result of contamination from the free release of equipment and materials.

The licensee's Review Committee was established to review decommissioning activities as directed by the Decommissioning Plan. The Review Committee was required to have a minimum of three members, an unspecified number of alternates, and meet at least semiannually. The inspectors discussed the Review Committee's performance with the Decommissioning Reactor Manager and reviewed the agenda from a June 27, 2007, Committee Meeting. All three permanent members of the Committee and four of the five current alternate members attended the June 27<sup>th</sup> meeting. The three permanent members are required to attend to have a quorum, and if a 100 percent agreement is not reached on an issue, that issue is tabled until the objecting members concerns have been satisfied. The Reactor Manager indicated another meeting was to be conducted in December to meet the semi-annual requirement for calendar year 2007.

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<sup>1</sup> A List of acronyms used in the report is included at the end of the Report Details.

### 1.3 Conclusion

The inspectors determined that the licensee had complied with NRC and Department of Transportation regulations for shipments of radioactive waste. The inspectors determined that the licensee continued to be effective in controlling personal exposures, and that the licensee's program for the unrestricted release of equipment and materials was adequately implemented.

The licensee was adequately implementing the Review Committee to review decommissioning activities.

### 2.0 **Exit Meeting Summary**

The inspectors presented the inspection results to licensee management at the conclusion of the onsite inspections on June 28 and November 14, 2007. The licensee acknowledged the findings presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

**SUPPLEMENTAL INFORMATION**  
**PARTIAL LIST OF PERSONS CONTACTED**

Licensee

\*C. Becker, Decommissioning Reactor Manager

\*Indicates presence at the exit meetings held on June 28 and November 14, 2007.

**INSPECTION PROCEDURES USED**

IP 69013      Research and Test Reactor Decommissioning

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened      None

Closed      None

Discussed      None

**LIST OF ACRONYMS USED**

CFR	Code of Federal Regulations
DOT	Department of Transportation
LSA	Low Specific Activity
NRC	Nuclear Regulatory Commission

**DOCUMENTS REVIEWED**

Documents used during the inspection were specifically identified in the Report Details, above.