

November 15, 2001

Dr. Denise Denton, Dean  
College of Engineering  
University of Washington  
371 Loew Hall MSFH-10  
Seattle, WA 98195

SUBJECT: NRC INSPECTION REPORT NO. 50-139/2001-201

Dear Dr. Denton:

This refers to the inspection conducted on September 27, 2001, at the University of Washington Nuclear Reactor 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 observations of activities in progress.

Based on the results of this inspection, no safety concerns or noncompliances of NRC requirements were identified. However, we continued to be concerned about the inability of the State of Washington to make sufficient funds available to start decommissioning activities. No response to this letter is required.

In accordance with 10 CFR 2.790 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/NRC/ADAMS/index.html>.

Should you have any questions concerning this inspection, please contact Mr. Craig Bassett at (404) 562-4712.

Sincerely,

*/RA/*

Patrick M. Madden, Section Chief  
Non-Power Reactors and Financial Section  
Operational Experience and  
Non-Power Reactors Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No.: 50-139  
License No.: R-73

Enclosure: NRC Inspection Report No. 50-139/2001-201

University of Washington

Docket No. 50-139

cc w/encl:

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Mayor of City of Seattle  
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U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No: 50-139

License No: R-73

Report No: 50-139/2001-201

Licensee: University of Washington

Facility: Nuclear Reactor Facility

Location: Nuclear Reactor Building, University of Washington  
Seattle, WA

Dates: September 27, 2001

Inspector: Craig Bassett

Approved by: Patrick M. Madden, Section Chief  
Non-Power Reactors and Financial Section  
Operational Experience and  
Non-Power Reactors Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

## EXECUTIVE SUMMARY

University of Washington Nuclear Reactor Facility  
Report No: 50-139/2001-201

The primary focus of this routine, announced inspection was the on-site review of selected aspects of the licensee's Class III non-power reactor (NPR) operation including: organization and staffing, review and audit functions, radiation protection, and security. A tour of the reactor facility was also conducted.

### Changes, Organization, and Staffing

- The responsibility for managing the University of Washington Nuclear Reactor (UWNR) facility remained with the Assistant to the Dean of the College of Engineering.
- Funds had been allocated by the State of Washington to begin decommissioning of the UWNR facility in 1998 but no work was ever started.
- No staff is assigned at the facility.

### Review and Audit Functions

- No Technical and Safety Committee (TSC) meetings had been held recently because there have been no changes to review in the status of the facility.
- Reviews and audits of decontamination and decommissioning activities have not been conducted because there were no ongoing activities in this area.

### Radiation Protection Program and Security

- Surveys were being completed and documented acceptably to permit evaluation of the radiation hazards that might exist.
- Postings met regulatory requirements.
- Area radiation monitors were being calibrated at the frequency specified in the Technical Specifications (TSs).
- Security of the facility was being maintained as required.

### Reporting Requirements

- There had been no abnormal occurrences at the facility that would require a report to the NRC.
- Annual reports were being submitted to the NRC as required.

## REPORT DETAILS

### **Summary of Plant Status**

The licensee's Argonaut reactor remains in a shutdown status. The NRC granted the licensee an Order authorizing dismantling of the facility and disposition of component parts in 1995. During the inspection, the licensee continued to possess the reactor but not operate it as stipulated in the license and applicable TSs.

#### **1. Changes, Organization, and Staffing**

##### a. Inspection Scope (Inspection Procedure (IP) 40755)

The inspector reviewed the following regarding the licensee's organization and staffing to ensure that the requirements of TS Sections III.A and B were being met:

- organizational structure
- management responsibilities
- requirements for safe maintenance of the UWNR Facility

##### b. Observations and Findings

As noted in a previous inspection report (50-139/98-201), the responsibility for managing the UWNR had been assigned to an Assistant to the Dean of the College of Engineering. This remained unchanged during this inspection. The inspector also noted that line responsibility for radiological safety at the facility included the University's Radiation Safety Officer as required.

The licensee's Argonaut research reactor was shut down June 30, 1988, and has not been operated since that date. All reactor fuel was shipped off site. The inspector verified that the reactor has remained in a shut down status since the last inspection. A decommissioning order was issued on May 1, 1995, contingent on funds being available to decommission. However, the licensee could not begin the decommissioning project because no funds had been allocated by the State of Washington. About one half of the money needed to complete the job was subsequently set aside for the project in 1998 but, because only about half the project could be completed, no decommissioning work had ever been initiated. At present, the licensee did not know whether or not the funds that had been appropriated in 1998 for the decommissioning project were still available. However, it was noted that now because of price inflation, particularly in waste disposal charges, much more additional money will be needed before any work can begin.

Through a review of records and discussions with licensee personnel, the inspector determined that no staff members were assigned at the facility. This was determined to be acceptable because there were no ongoing activities that would require permanent staff.

##### c. Conclusions

The responsibility for managing the UWNR remained with the Assistant to the Dean of the College of Engineering. Some funds had been allocated by the State of

Washington to begin decommissioning of the UWNR facility in 1998 but no work was ever started. No staff is currently assigned at the facility.

## **2. Review and Audit Functions**

### a. Inspection Scope (IP 40755)

The inspector reviewed the following to ensure that the requirements of TS Section III.C were being completed as required:

- TSC meeting minutes
- review and audit functions

### b. Observations and Findings

As noted during the inspection in 1998 (50-139/98-201), no TSC meeting minutes were available because the committee had not met. The reason that no meetings had been held was that nothing further could be done concerning the decommissioning of the reactor and no new issues had developed that warranted a meeting. The inspector noted that, if the State of Washington allocates more funds for decommissioning, the TSC will need to meet to review the project and determine how to proceed.

Because decommissioning of the research reactor had not been initiated, the TSC had not conducted any reviews or audits of the decontamination and decommissioning (D&D) project operators and activities as required by the TS. This was acceptable given the circumstances at the facility.

### c. Conclusions

No TSC meetings had been held recently because there have been no changes in the status of the facility to review. Reviews and audits of D&D project operators and activities had not been conducted because there were no ongoing activities in this area.

## **3. Radiation Protection Program and Security**

### a. Inspection Scope (IP 40755)

The inspector reviewed the following to verify compliance with 10 CFR Part 20 and the requirements of TS Sections I.A and B and II.A and B:

- health physics survey records
- radiological signs and posting
- area radiation monitor calibration records
- security of the UWNR facility

The inspector also toured the licensee's facility and observed the use of dosimetry and radiation monitoring equipment. Licensee personnel were interviewed as well.

b. Observations and Findings

(1) Surveys

Annual contamination and radiation surveys were completed by Health Physics technicians as required by TSs and licensee procedures. Results were evaluated as required. No effluents had been released from the facility.

(2) Postings

Postings at the entrances to the controlled areas were acceptable for the hazards present.

(3) Calibration

Through records review and discussions with licensee personnel, the inspector determined that the two area radiation monitors were being used and were being calibrated as required by the TSs.

(4) Security

Through direct observation and discussions with licensee personnel, the inspector determined that the reactor room is being maintained secure under a lock security system as required by the TSs. Access to the reactor room during working hours is controlled by Environmental Health and Safety (EH&S) personnel and the entrance doors to the reactor room are locked during non-working hours.

c. Conclusions

Surveys were being completed and documented acceptably to permit evaluation of the radiation hazards that might exist. Postings met regulatory requirements. Area radiation monitors were being calibrated at the frequency specified in the TS. Security of the facility was being maintained by EH&S personnel as required.

**4. Reporting Requirements**

a. Inspection Scope (IP 40755)

The inspector reviewed the following to ensure that the requirements of TS Section III.F and G were being met:

- abnormal occurrences
- significant changes in facility organization
- routine annual reports

b. Observations and Findings

The licensee stated that there had been no abnormal occurrences at the facility that would require a report to the NRC. The NRC staff contacted the facility after the Seattle area earthquake in early 2001. The inspector noted that the licensee had

contacted the NRC to notify the NRC when there had been a change of personnel in the position of Dean of the College of Engineering as required.

During the inspection in 1998, it was noted that the licensee was not providing the NRC with annual reports as required by the TSs. This issue was discussed with the licensee and the inspector was provided with annual reports for each year from 1998 to the present. The routine annual reports had been issued as required. This closes Non-Cited Violation 50-139/98-201-01.

c. Conclusions

There had been no abnormal occurrences at the facility that would require a report to the NRC. Annual reports were being submitted to the NRC as required.

**5. Exit Interview**

The inspection scope and results were summarized on September 27, 2001, with members of licensee management. The inspector described the areas inspected and discussed the inspection findings.

No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Licensee

S. Addison, Radiation Safety Officer, Environmental Health and Safety Office  
M. Carette, Assistant to the Dean, College of Engineering  
B. Pankow, Health Physicist Supervisor, Environmental Health and Safety Office

## **INSPECTION PROCEDURE USED**

IP 40755          Class III Non-Power Reactors

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

### Opened

None

### Closed

50-139/98-201-01      NCV          Failure to submit annual reports to the NRC as required.

## **LIST OF ACRONYMS USED**

CFR	Code of Federal Regulations
D&D	Decontamination and decommissioning
EH&S	Environmental Health and Safety
IP	Inspection Procedure
NCV	Non-cited Violation
NPR	Non-Power Reactor
NRC	Nuclear Regulatory Commission
PDR	Public Document Room
TS	Technical Specification
TSC	Technical and Safety Committee
UWNR	University of Washington Nuclear Reactor