

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-027/92-01  
Docket No. 50-027  
License No. R-76  
Licensee: Washington State University  
Pullman, Washington 99104  
Facility Name: Nuclear Radiation Center  
Inspection At: Washington State University  
Pullman, Washington  
Inspection Dates: June 8 - 10, 1992

Inspector:

Phillip M. Qualls  
P. M. Qualls, Reactor Inspector

7/13/92  
Date Signed

Approved by:

Robert J. Pate  
Robert J. Pate, Chief  
Safeguards, Emergency Preparedness  
and Nonpower Reactor Branch

7/13/92  
Date Signed

Summary:

Areas Inspected: Routine announced inspection by a region based inspector of the reactor operations program; including reactor operations, health physics, emergency planning and preparedness, transportation activities, followup items, and exit interview. Inspection procedures 30703, 40750, and 86740 were used.

Results: In the areas inspected, no deviations were identified. However, one non-cited violation was identified in the area of management review of reactor operations (See paragraph 2.h of the report details). The licensee conducts a program capable of meeting their safety objectives.

## DETAILS

### 1. Key Persons Contacted

The below listed persons were contacted during the course of the inspection.

- B. Bunce, Reactor Operator
- R. Filby, Member, Reactor Safeguards Committee
- H. Miller, Chairman, Reactor Safeguards Committee
- \*J. Neidiger, Reactor Supervisor
- \*W. Rayburn, Associate Dean, WSU Graduate School
- \*G. Tripard, Director, Nuclear Radiation Center

The inspector also contacted members of the licensee's administrative and technical staff during the course of this inspection.

\* Denotes those present at the exit meeting on June 10, 1992.

### 2. Class II Research and Test Reactor Operations (40750)

The inspector reviewed the operations, health physics, emergency preparedness, and regualification training for the TkIGA reactor. The items reviewed are discussed in the following subparagraphs.

#### a. Organization

The inspector reviewed the licensee's organization and found it consistent with the description of the organization described in section 6.2 of their Technical Specifications (TS).

#### b. Annual Reports

The inspector reviewed the annual reports for the periods July 1, 1989 through June 30, 1990, and July 1, 1990 through June 30, 1991. The information reported was consistent with the inspector's observations during this inspection.

#### c. Logs and Records

The inspector reviewed selected operating logs and maintenance records for 1991 and early 1992. The inspector noted that the records and logs were up to date with adequate information included to properly document facility operations. The inspector also noted that problems were clearly identified and documented in the logs and that the maintenance logs left a clear reviewable record of the maintenance accomplished.

#### d. Procedures

The inspector verified that the operator responsibilities are clearly defined in the licensee's procedures. The procedures also establish review requirements for procedural changes. The inspector reviewed operating procedures and verified that they were technically adequate

and met TS requirements. The inspector verified that the operators were using the current approved procedures.

e. Requalification Training

The inspector reviewed selected licensed operator requalification records. Licensee records indicated that all requalification requirements were being tracked and completed as required by their approved requalification plan.

f. Surveillance

The inspector reviewed selected surveillance records for the Area Radiation Monitor (ARM) and for the Ventilation System. No cases of missed surveillance requirements were identified. The procedures reviewed appeared to adequately meet TS requirements.

g. Experiments

The inspector reviewed the licensee's experiment records. The only recently approved new experiment involved exposing an irradiation structure placed adjacent to the exterior of the reactor core. This experiment had been properly reviewed and approved by facility management.

h. Reactor Safeguards Committee

The inspector reviewed the Reactor Safeguards Committee (RSC) meeting minutes and audit reports. The meetings minutes reflected a depth of review that indicated that the RSC was involved in reactor activities. The meetings were held at the required frequency with proper attendance by committee members as required by Technical Specifications (TS). The committee audits were conducted as required by TS. The audits were comprehensive and were discussed at RSC meetings. Adverse findings were tracked and corrected. The inspector compared the RSC Composition and Qualifications with the requirements of TS 6.5.2. The inspector noted that no committee member was a Senior Reactor Operator as required by the TS. The licensee had identified this deficiency and the committee Chairman was in the process of getting a license. The licensee-identified violation is not being cited because the criteria specified in Section V.G. of the Enforcement Policy were satisfied (92001-01).

i. Health Physics

The inspector reviewed the health physics practices at the facility. The radiation areas were clearly marked. Survey records were reviewed by the inspector and verified by conducting a confirmatory survey. The surveys were conducted at the required frequency. The inspector verified that all survey instrumentation observed was in calibration. The inspector observed a radiation survey conducted by licensee personnel and verified that proper radiological practices were being used. The inspector reviewed exposure records for 1991 and verified that no significant personnel exposure had occurred.

j. Design Changes

The inspector reviewed selected modifications made to the facility subsequent to the last inspection. All appeared to have been properly reviewed, approved, and implemented. Records show proper RSC and 10 CFR 50.59 review prior to change implementation.

k. Emergency Preparedness

The inspector verified through records review that drills were being conducted in accordance with licensee emergency plan requirements. The inspector verified through interviews with non-reactor technical staff personnel that they had been trained on the proper response to an emergency. The inspector reviewed the licensee's emergency plan and associated emergency procedures. The procedures adequately implemented the plan requirements.

l. Facility Tour

The inspector toured the reactor facility including the supporting mechanical, electrical, and ventilation rooms. All areas were well maintained. The inspector noted some areas where facility housekeeping was not comparable to other Nonpower/Research reactor standards which have been observed in Region V. Improvements needed in these areas were noted by facility management. Instrumentation was in calibration, emergency response equipment was available and maintained, and no fire or personnel hazards were identified.

m. Observed Facility Operations

The inspector observed a reactor shut-down (including completion of the checkoffs), steady-state reactor operations and a test of the facility alarms. In all cases the facility staff performed the activity in a competent professional manner, proper procedures and checklists were used, and the activities accomplished safely and expeditiously.

One non-cited violation was identified.

3. Transportation Activities (86740)

The inspector verified through discussions with facility personnel that no shipments of radioactive materials were accomplished by the facility using the NRC reactor license. The waste material is transferred to the State of Washington license prior to shipment. No deficiencies were identified.

No violations or deviations were identified.

4. Exit Meeting

The inspector met with the licensee management on June 10, 1992. The items listed in this report were discussed at that time.

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REQUEST COPY	REQUEST COPY	REQUEST COPY
YES NO	YES NO	YES NO

SEND TO PDR
YES NO

*Letter + envelope A only*