



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

July 26, 2007

Mr. Richard K. Smith
Vice President - Environmental Remediation
CBS Corporation
11 Stanwix Street, Room 370
Pittsburgh, Pennsylvania 15222

SUBJECT: TR-2 FACILITY - NRC INSPECTION REPORT 05000022/2007001

Dear Mr. Smith:

On July 10, 2007, the United States Nuclear Regulatory Commission completed an announced inspection at your TR-2 facility in Madison, PA. The enclosed report documents the inspection results, which were discussed with you on July 17, 2007.

The inspection examined decommissioning activities conducted under your license as they related to safety and compliance with the Commission's rules and regulations and conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified. No reply to this letter is required.

In accordance with Section 2.390 of the NRC's "Rules and Practices," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR) and will be accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Your cooperation with us is appreciated.

Sincerely,

/RA MBeardsley Acting for/
Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Docket No. 05000022
License No. TR-2

July 26, 2007

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See cc: on following page.

Distribution w/encl:

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Enclosure:
Inspection Report 05000022/2007001
w/Attachment: Supplemental Information

cc w/encl:
W. Vogel, Westinghouse Electric Company
R. Maiers, Commonwealth of Pennsylvania

U. S. NUCLEAR REGULATORY COMMISSION

Docket No. 05000022

License No. TR-2

Report No. 05000022/2007001

Licensee: Viacom, Inc. (CBS Corporation)

Facility: Westinghouse Test Reactor

Location: Madison, PA

On-site Inspection Date: March 14, 2007

In-office inspection period: March 15 - July 10, 2007

Inspectors: Mark C. Roberts
Senior Health Physicist
Decommissioning Branch
Division of Nuclear Materials Safety

John J. Hayes, Jr.
Senior Project Manager
Office of Federal and State Materials and Environmental
Programs
Division of Waste Management and Environmental Protection
Decommissioning and Uranium Recovery Licensing Directorate

Approved by: Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Former Westinghouse Test Reactor
Viacom, Inc. (CBS Corporation)
NRC Inspection Report 05000022/2007001

This routine, announced inspection included on-site review of various aspects of the licensee's programs concerning organization and staffing, maintenance and dismantlement activities, surveillance, radiation protection program, physical security, and effluents and environmental monitoring as they relate to the licensee's Class III research reactor. The inspection also included additional in-office inspection through telephone contact with licensee's representatives to discuss the activities of the facility's Radiation Safety Committee. The inspectors concluded that the licensee's programs were directed toward the protection of public health and safety, and were in compliance with NRC requirements.

Organization and Staffing

- Organization, staffing, reporting, and record-keeping met Technical Specification (TS) requirements and applicable sections of the Radiation Safety Committee (RSC) Charter.

Maintenance and Dismantlement Activities

- The decontamination and dismantlement of a supplemental ventilation system was consistent with the Decommissioning Plan (DP), TS, and licensee procedures.

Surveillance

- The annual radiological surveillance of the TR-2 (Test Reactor) facility was implemented and documented as required by TS and licensee procedures.

Radiation Protection Program

- The inspectors determined that the radiation protection program was effectively implemented by the licensee and satisfied regulatory requirements.

Physical Security

- The physical protection features of the Waltz Mill site satisfied site procedures, and access to the TR-2 facility was appropriately controlled.

Effluents and Environmental Monitoring

- No gaseous or liquid effluents were released from the TR-2 facility during this inspection period. Direct radiation measurements using thermoluminescent dosimeters (TLDs) were indistinguishable from results obtained at a background location.

REPORT DETAILS

Summary of Plant Status

The TR-2 (Test Reactor) reactor facility license is held by Viacom Corporation (now CBS Corporation). The facility is located within the Westinghouse Electric Company Waltz Mill Site (NRC License No. SNM-770) near Madison, PA. Certain support services for the TR-2 license are provided by Westinghouse staff. The reactor facility is being decommissioned under the TR-2 Decommissioning Plan (DP) dated July 25, 1997, as supplemented on March 20 and July 10, 1998, and authorized by License Amendment No. 8, dated September 30, 1998. The reactor tank and internals have been removed and disposed of as radioactive waste. No fuel remains on-site. The reactor containment is unoccupied and is entered for Technical Specification (TS) required surveillances and occasional tours. During this inspection no decommissioning activities were in progress. The licensee maintained the facility as required by the TSs and the DP.

1. Organization, Reporting, Audits, and Records

a. Inspection Scope (Inspection Procedures [IPs] 69001, 69002, and 69013)

The inspectors reviewed selected documents (including the Technical Specifications and annual reports) and discussed the facility status, staffing, and radiation safety committee (RSC) activities with CBS and Westinghouse representatives to assess compliance with TS and licensee procedure requirements.

b. Observations and Findings

The management and decommissioning staffing were consistent with TS requirements. A qualified radiological consultant chairs the TR-2 RSC. The RSC meetings were held at required frequencies and documented as required. The RSC was appropriately assigned responsibility for reviewing decommissioning work packages and conducting audits of decommissioning activities. However, the RSC has not had to perform these actions because no decommissioning activities have been conducted since the last inspection.

The 2003, 2004, and 2005 annual reports summarized the required information and were issued at the frequency specified in the TS.

c. Conclusions

Organization, staffing, reporting, and record-keeping met TS requirements and applicable sections of the RSC Charter.

Enclosure

2. Maintenance and Dismantlement Activities

a. Inspection Scope (IPs 69001, 69002, and 69013)

The inspectors reviewed the dismantlement and storage of the TR-2 reactor building ventilation system and demolition of the temporary wooden structure that housed the ventilation system to determine compliance with licensee procedural and regulatory requirements. The inspectors toured selected areas, reviewed selected documents, and interviewed cognizant personnel.

b. Observations and Findings

The inspectors toured the containment building and observed that most of the systems, structures, and components associated with the former test reactor had been removed and disposed of as radioactive waste. The RSO discussed the dismantlement of the supplemental ventilation system that was removed and placed into local storage within the facility. Because the system has not been used since decommissioning activities were discontinued in 2001, the ventilation system was disconnected because of the deteriorating condition of the temporary wooden structure that housed the system. Openings in the containment building resulting from the removal of the ventilation ducts were sealed to retain integrity of the building. The wooden portions of the structure were shipped to a facility in Tennessee for radiation surveys for bulk release. The ventilation system was placed into storage for potential future use.

c. Conclusions

The decontamination and dismantlement of a supplemental ventilation system was consistent with the DP, TS, and licensee procedures.

3. Surveillance

a. Inspection Scope (IPs 69001 and 69002)

The inspectors reviewed the results from the required annual survey of the Waltz Mill site retired areas, which included radiological survey data from within the TR-2 facility to determine compliance with TS and licensee procedural requirements. The inspectors also reviewed a consultant's report regarding a structural inspection of the facility. The inspectors obtained information by touring the areas, reviewing selected documents, and interviewing cognizant personnel.

b. Observations and Findings

Since no decommissioning activities were in progress at the TR-2 facility, the annual surveillance of the TR facility was conducted by Westinghouse radiation protection staff. Data obtained included: radiation and contamination measurements, air sampling and analysis, and collection and analysis of water samples from pits and tunnels. Radioactivity concentrations in air and water were compared to applicable 10 CFR Part 20 limits and found to be a small fraction of

these limits. The inspectors also reviewed an engineering consultant's report on the structural integrity of the TR-2 containment building and noted that the consultant did not identify any problems in the building.

c. Conclusions

The annual radiological surveillance of the TR-2 facility was implemented and documented as required by TS and licensee procedures.

4. Radiation Protection Program

a. Inspection Scope (IPs 69001)

The inspectors reviewed selected aspects of the radiation protection program to evaluate compliance with the requirements of 10 CFR Part 20, TS, and the licensee's procedures. The inspectors obtained information through tours of the areas, review of selected documents, and discussions with cognizant personnel.

b. Observations and Findings

The inspectors reviewed selected procedures and the radiation work permit (RWP) used for access to TR-2. The inspectors determined that RWP access requirements were appropriate for the radiological conditions of the facility.

During tours, the inspectors observed that caution signs, postings and controls in the TR were acceptable for the hazards involving radiation and contaminated areas and were implemented as required by 10 CFR 20. The inspector confirmed that current copies of NRC Form-3 and notices to workers were posted in areas in the facility as required by 10 CFR Part 19.

The calibration and periodic checks of the portable survey meters and radiation monitoring equipment were performed by the Westinghouse radiation protection staff. The radiation detection instrumentation at the access control point for the test reactor required annual calibration and periodic performance tests when in use. All instruments checked had current calibrations for the types and energies of radiation they were used to detect and/or measure, and had been checked for daily performance.

c. Conclusions

The inspectors determined that the radiation protection program was effectively implemented by the licensee and satisfied regulatory requirements.

5. Physical Security

a. Inspection Scope (IPs 69001, 69002, and 69013)

The inspectors reviewed selected aspects of the Waltz Mill site access control program and DP requirements for access to the TR-2 facility. The inspectors

obtained information through tours of the areas, review of selected documents, and discussions with cognizant personnel.

b. Observations and Findings

An industrial security program was in place to control access to the Waltz Mill site. Entrance points to the TR-2 facility were properly secured and access to the facility was appropriately controlled. The inspectors confirmed that the entrances to the facility were secured prior to entry and were properly secured by the licensee following exit. Entry logs appeared to have been properly completed.

c. Conclusions

The physical protection features of the Waltz Mill site satisfied site procedures and access to the TR-2 facility was appropriately controlled.

6. Effluents and Environmental Monitoring

a. Inspection Scope (IPs 69001 and 69002)

The inspectors reviewed relevant documents and interviewed cognizant individuals to determine if the licensee was in compliance with 10 CFR Part 20 and TS requirements.

b. Observation and Findings

Because no decommissioning activities have been conducted since the last inspection, the licensee has not made releases of gaseous or liquid effluents from the TR-2 facility. Groundwater can leak into the TR-2 facility from areas licensed under the SNM-770 license, but is pumped back into the SNM-770 area where it is collected and processed through the routine SNM-770 filtration, reverse osmosis, and ion exchange liquid waste cleanup equipment. This waste water is then analyzed and discharged through the site liquid waste processing systems. Since this process is a SNM-770 licensed process, liquid releases were not reviewed as part of this TR-2 inspection. The inspectors noted that a temporary barrier had been installed to eliminate one of the major pathways for groundwater infiltration into the TR-2 facility from areas under the SNM-770 license.

Environmental monitoring for TR-2 is performed under the SNM-770 license. Direct radiation was measured with a number of thermoluminescent dosimeters (TLDs) throughout the site and along the perimeter of the central operation area. These direct radiation measurements resulted in readings within the unrestricted areas that were indistinguishable from results obtained at a background location.

c. Conclusion

No gaseous or liquid effluents were released from the TR-2 facility during this inspection period. Direct radiation measurements using TLDs were indistinguishable from results obtained at a background location.

13. Exit Interview

The inspection scope and results were summarized in a July 17, 2007 telephone exit conference with the CBS Vice President - Environmental Remediation. The inspector discussed the findings for each area reviewed. The licensee acknowledged the findings. No proprietary information was reviewed by or provided to the inspectors.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

A. Lombardo, CHP CBS Corporation consultant - RSC Chairman (via telephone)
*R. Smith CBS Corporation - Vice President - Environmental Remediation
*W. D. Vogel Westinghouse Waltz Mill - Radiation Safety Officer

* attended exit interview

INSPECTION PROCEDURES USED

IP 69001 Class II Research and Test Reactors
IP 69002 Class III Research and Test Reactors
IP 69013 Research and Test Reactor Decommissioning

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Waltz Mill 2003 Annual Report, dated April 29, 2004
Waltz Mill 2004 Annual Report, dated May 10, 2005
Waltz Mill 2005 Annual Report, dated June 1, 2006
Radiation Work Permit 2007A-32-SC (G), Rev. 0, Tours and inspections in the WTR by visitors, regulatory agencies, and site personnel
Westinghouse Nuclear Services Departmental Procedure, WM-HP-IRAS-002, Rev. 0, Annual Surveillance of Inactive Retired Areas
Minutes of the Westinghouse Test Reactor Decommissioning Radiation Safety Committee Meeting, December 7, 2006, Meeting No. WTR-RSC-06-001
Appendix A to Test Reactor Decommissioning Plan, Technical Specifications for Test Reactor, Rev. 3, Attachment to NRC letter dated April 13, 2000
Westinghouse Test Reactor, TR-2, Final Decommissioning Plan, Rev. 1, January, 2000
Radiation Safety Committee Charter for Westinghouse Test Reactor Decommissioning Project, Revision 4, Version 09/01
2006 Annual Survey of the Waltz Mill Site Retired Areas, RWP Number 2005-31-SC, August 28 - September 1, 2006

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
CHP	Certified Health Physicist
DP	Decommissioning Plan
IP	Inspection Procedure
mR/hour	milliroentgens/hour
NRC	Nuclear Regulatory Commission
RSC	Reactor Safety Committee
RSO	Radiation Safety Officer
RWP	Radiation Work Permit
TLD	Thermoluminescent Dosimeter
TR	Test Reactor
TS	Technical Specifications