

November 21, 2003

Mr. Richard K. Smith
Director - Environmental Remediation
Viacom Inc.
11 Stanwix Street
Pittsburgh, PA 15222-1312

SUBJECT: NRC INSPECTION REPORT NO. 50-22/2003-201

Dear Mr. Smith:

This letter refers to the inspection conducted on October 6-7, 2003, at your Westinghouse Test Reactor at Waltz Mill. The inspection included a review of activities authorized for your 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. 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/reading-rm/adams.html>.

Should you have any questions concerning this inspection, please contact Stephen Holmes at 301-415-8583.

Sincerely,

/RA by Marvin Mendonca Acting for/

Patrick M. Madden, Section Chief
Research and Test Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-22
License No. TR-2

Enclosure: NRC Inspection Report No. 50-22/2003-201
cc w/encl.: Please see next page

Westinghouse/Waltz Mill

Docket No. 50-22

cc:

Mr. James G. Yusko
Pennsylvania Department of
Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Joseph Nardi, License Administrator
Westinghouse Electric Company
Box 355
Pittsburgh, PA 15230-0355

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

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U. S. NUCLEAR REGULATORY COMMISSION

Docket No. 50-22

License No. TR-2

Report No. 50-22/2003-201

Licensee: VIACOM/Westinghouse Electric Company Division

Facility: Westinghouse Test Reactor

Location: Waltz Mill, PA

Dates: October 6-7, 2003

Inspector: Stephen W. Holmes, Reactor Inspector

Approved by: Patrick M. Madden, Section Chief
Research and Test Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

This routine, announced inspection included on site review of various aspects of the licensee's programs concerning operations, emergency preparedness, physical security, radiation protection, and transportation activities as they relate to the licensee's Class III Research Reactor. 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 Specifications Sections 6.1, 6.5, 6.6, and Final Decommissioning Plan Section 2.4 requirements.

Review, Audit, and Design Change Functions

- The Radiation Safety Committee performed their review and oversight functions as required by Technical Specifications Section 6.2, Final Decommissioning Plan Section 2.4, and Radiation Safety Committee charter. No 10 CFR 50.59 Final Decommissioning Plan or facility design changes had been performed.

Decommissioning and Maintenance Activities

- The decommissioning and maintenance activities were consistent with the Final Decommissioning Plan, Technical Specifications, and licensee procedures.

Surveillance

- The program for surveillance and Limiting Conditions for Operations confirmation was being implemented in accordance with Technical Specifications Sections 3 and 4, Final Decommissioning Plan Section 6, and licensee procedures.

Emergency Preparedness

- Emergency response staffing was acceptable for the radiological hazards involved in a fire or injury involving the Test Reactor and in accordance with the licensee's Emergency Response Plan.

Radiation Protection Program

- The Radiation Protection Program being implemented by the licensee satisfied regulatory requirements.

Transportation Activities

- Radioactive waste was disposed of as required by Final Decommissioning Plan Section 3.3, 10 CFR Part 71, Department of Transportation 49 CFR Parts 172 and 173, and licensee procedures.

Physical Security

- The physical protection features of the Waltz Mill Site and Test Reactor, the equipment, procedures and access control, met the access control plan, Final Decommissioning Plan, Westinghouse Electric Company Nuclear Services Security Manual, and satisfied site procedures.

Effluents and Environmental Monitoring

- Gaseous and liquid effluent releases were well below 10 CFR 20, Appendix B limits. Doses to the public were also well below 10 CFR 20.1301 (a) and 10 CFR 20.1101(d) limits.

REPORT DETAILS

Summary of Plant Status

The reactor facility is being decommissioned under the TR-2 Final Decommissioning Plan (FDP) 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 was underway. The licensee was maintaining the facility as required by the TSs and the FDP.

1. Organization, Reporting, and Records

a. Inspection Scope (Inspection Procedure [IP] 40755)

The inspector reviewed the following to ensure staffing, reporting, and record keeping requirements specified in TS Sections 6.1, 6.5, and 6.6 were being met, the inspector reviewed:

- TS for the Test Reactor (TR), Waltz Mill Site (WMS), Amendment No. 12, dated May 25, 2000
- administrative controls and management responsibilities specified in TS Sections 6.1, 6.5, and 6.6
- organization and staffing for the TR
- TR, TR-2 FDP, Revision 1, dated January 2000
- Waltz Mill Radiation Safety Program Policies and Procedures, revised May, 12, 2003
- Waltz Mill (WM) Health Physics (HP) Radiation Exposure Management Procedure (REM)-157, Issue and return of Self-Reading Dosimeters
- WM-HP-REM-168, Visitor Dosimeter Issuance and Usage
- WM-HP-ALARA-336, Radiological Occurrence Reports
- WM-HP-TR-001, Access Control Plan
- TR containment building access logs from June 2000 to present
- WM 2002 Annual Report, dated May 1, 2003
- WM 2001 Annual Report, dated March 25, 2002
- WM 2000 Annual Report, dated March 9, 2001

b. Observations and Findings

The management and decommissioning structure consisted of Level 1- Individual responsible for the license, Level 2-Individual responsible for facility activities, and Level 3-Individual responsible for day-to-day supervision as outlined in TS Section 6.1.1, authorized by Amendment No. 10 dated November 23, 1999, and charted in Table 2-13 of the FDP. The inspector verified that these positions were filled, interviewed individuals, and determined that they were knowledgeable of their duties and responsibilities required by FDP Section 2.4 and TS 6.1.2. The inspector determined that, although individual personnel had changed, no functional changes had occurred in the organization since last inspected (refer to NRC Inspection No. 50-22/1999-202, ADAMS Accession No. ML022120503).

A review of the TR operations and maintenance logs showed that they were being completed as required by TS Section 6.6 and problems, if any, were being documented. Review of records verified that management responsibilities were administered and records maintained as required by TS Section 6.6 and licensee procedures.

The 2000, 2001, and 2002 annual reports summarized the required information and were issued at the frequency specified in TS Section 6.5.1. No special reports were submitted pursuant to TS Section 6.5.2

c. Conclusions

Organization, Staffing, Reporting, and Record keeping met TS Sections 6.1, 6.5, 6.6, and FDP Section 2.4 requirements.

2. Review, Audit, and Design Change Functions

a. Inspection Scope (IP 40755)

The inspector reviewed the following to ensure that the licensee had established and conducted reviews and audits as required in TS Section 6.2, the FDP, and the Reactor Safety Committee (RSC) charter and to decide whether modifications to the facility, if any, were consistent with 10 CFR 50.59:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- TR, TR-2 FDP, Revision 1, dated January 2000
- RSC meeting minutes from November 2000 through the present
- RSC decommissioning, facility activity, staff qualification, and licensee corrective actions audits from March 2000 through the present
- WM-HP-ALARA-338, ALARA Review
- RSC charter, dated May 2000

b. Observations and Findings

The RSC membership and meeting schedule met TS Section 6.2 and RSC charter requirements and a quorum was present at each meeting. The inspector reviewed the minutes of the last five RSC meetings (April 2000 to April 2003) and confirmed that the topics considered were as stipulated in TS Section 6.2.3 and the Committee's charter. The RSC, as required by TS Section 6.2.3 and 6.3, reviewed and approved new procedures and radiological safety significant revisions to existing ones. The RSC is also responsible for reviewing FDP and facility 10 CFR 50.59 changes, and TS and license change requests, as required by TS Section 6.2.3, FDP Section 2.4, and NRC regulations. No 10 CFR 50.59, FDP, or facility design changes had been performed since the last inspection.

The RSC conducted audits and reviews of the facility as required by TS Section 6.2.4, FDP Section 2.4, and licensee procedures. The inspector found the content of the reviews and audits to be consistent with the TS and the RSC charter requirements.

Results of the audits were discussed with the licensee and RSC recommendations for improvements were made.

The inspector determined that the RSC provided guidance, direction, and decommissioning oversight as required by TS Section 6.2.1.

c. Conclusions

The RSC performed their review and oversight functions as required by TS Section 6.2, FDP Section 2.4, and RSC charter.

3. Decontamination and Dismantlement Activities

a. Inspection Scope (IPs 40755 and 69001)

The inspector reviewed the following to ensure that activities at the site were proceeding as outlined in the TS, the FDP, and licensee procedures:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- TR, TR-2 FDP, Revision 1, dated January 2000
- Waltz Mill Westinghouse Test Reactor Decommissioning Project Control Manual (WMDT), Rev 11, Issued October 2001
- Work Package-1, Project Management
- Radiation Protection Manual (RPM), Revision 10, dated April 10, 2001
- Waltz Mill Radiation Safety Program Policies and Procedures, revised May, 12, 2003
- WM-HP-Administrative Procedure (ADMIN)-118, Radioactive Material Management Program Requirements
- WM-HP-ALARA-134 Request, Authorization, and Issue of Radiation Work Permits
- WM-HP-REM-168, Visitor Dosimeter Issuance and Usage
- WM-HP-Surveys & Surveillance Procedure (SURV)-133, Posting Radiation Areas and Access Control Zones
- WM-HP-SURV-220, Radiation Surveys
- WM-HP-SURV-254, Air Sampling Using Portable Air Samplers, Revision 1
- WM-HP-SURV-401, Lapel Air Sampling
- WM-HP-TR-001, Access Control Plan
- WM 2002 Annual Report, dated May 1, 2003
- WM 2001 Annual Report, dated March 25, 2002
- WM 2000 Annual Report, dated March 9, 2001
- Waltz Mill Remediation Project Monthly Reports, March 2000 to July 2001
- decommissioning logs and records

b. Observations and Findings

FDP Section 2.7, "Optional Decontamination and Dismantlement Activities with the WTR Containment Building", states, in part, that decontamination and dismantlement activities may be performed in other areas within the WTR containment building. It also states that these activities are not required for TR-2 decommissioning but may be performed prior to transfer of the remaining residual radioactivity to the SNM-770 License.

The inspector toured containment and reviewed selected entrance, operations, health physics, and containment logs from March 2000 to present. The inspector observed the condition of and reviewed selected records related to drilling, cutting, sawing and other activities performed during sampling or removal of ducting, piping, pumps, valves, and other reactor and auxiliary components from the Sub-pile Room, Rabbit Pump Room, Test Loop Cubicles, Test Loop Dump Tank Pits, Primary Coolant Pipe Tunnels, and Transfer Canal.

All piping, system components, and materials were removed from the facilities and disposed. Water was pumped out and processed as radioactive waste. Solids and sediment were removed and disposed as radioactive waste. The floors, walls, and ceiling surfaces were decontaminated and remaining deep hot spots in the concrete were documented in as-left surveys.

The decontamination and dismantlement activities were carried out following written procedures as required by TS Section 6.3, and FDP Section 2.4.1. Information on operational status of the facility was recorded in log books or checklists as required by procedures, providing a record of operational activities and events.

Since active decontamination and dismantlement ceased in the fall of 2001 operations were focused on maintaining the integrity and security of the facility, performing required health physics operations, and fulfilling TS maintenance and monitoring requirements.

Through record reviews, interviews with staff and contractors, and direct observations, the inspector determined that decontamination and dismantlement activities were performed as required by the TS, the FDP, and licensee procedures

c. Conclusions

The decontamination and dismantlement activities were consistent with the FDP, TS, and licensee procedures.

4. Surveillance

a. Inspection Scope (IP 40755)

The inspector reviewed the following to ensure that surveillances and Limiting Conditions for Operations (LCO) verifications were being completed as required by TS Sections 3 and 4, FDP Section 6, and licensee procedures:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- TR, TR-2 FDP, Revision 1, dated January 2000
- WMDT, Rev 11, Issued October 2001
- Waltz Mill Radiation Safety Program Policies and Procedures, revised May, 12, 2003
- WM-HP-29, Annual Surveillance of Retired Facilities
- WM-HP-ADMIN-112, Survey and Surveillance Program Requirements
- WM-HP-ENVIR-22, Environmental Radiation Surveillance
- WM-HP-SURV-220, Radiation Surveys

- WM-HP-SURV-230, Routine Surveillances
- WM-HP-TR-001, Access Control Plan
- TR containment building access logs from June 2000 to present
- 2002 Annual Survey of the WMS Retired Areas (July 16 to 31, 2003)
- 2003 Annual Survey of the WMS Retired Areas (September 18 to October 4, 2002)
- WM 2002 Annual Report, dated May 1, 2003
- WM 2001 Annual Report, dated March 25, 2002
- WM 2000 Annual Report, dated March 9, 2001
- associated surveillance and calibration data and records from June 2000, to present

b. Observations and Findings

The surveillances for the TR are to maintain the containment building and to protect the safety of the reactor staff and the public. The inspector reviewed selected weekly, monthly, quarterly, annual, and other periodic checks, tests, verifications, and calibrations for all TS-required surveillances and LCOs. They were being completed and documented as required by TS Sections 3, and 4, FDP Section 6, and licensee procedures. All the recorded results were within the TS and procedurally prescribed parameters and in close agreement with the previous surveillance results. The records and logs reviewed were accurate, complete, and were being maintained as required. All values checked by the inspector satisfied the limits/parameters listed in the procedure or checklist.

c. Conclusions

The program for surveillance and LCOs confirmation was being implemented in accordance with TS Sections 3 and 4, FDP Section 6, and licensee procedures.

5. Emergency Preparedness

a. Inspection Scope (IP 40755)

The inspector reviewed selected aspects of the following to evaluate the WMS emergency response capability:

- Emergency Response Plan (ERP) for the WMS, dated September 25, 1997
- ERP implementing procedures
- emergency call lists
- emergency response facilities, supplies, equipment and instrumentation
- training records

b. Observations and Findings

Although a NRC approved emergency plan is not required, the WMS, as an industrial complex, has an ERP, maintains its own fire brigade, and has an onsite medical clinic. Offsite medical support was provided by Westmoreland Primary Health Center. Training and tours of the facility were provided yearly to the staff. Interviews with staff and review of training records showed that a number are emergency medical technicians

and that they were knowledgeable of the hazards involved in responding to emergencies at the site. Emergency call lists at the guard station were available and accurate.

c. Conclusions

Emergency response staffing was acceptable for the radiological hazards involved in a fire or injury involving the reactor facility.

6. Radiation Protection Program

a. Inspection Scope (IPs 40755 and 69001)

The inspector reviewed the following to ensure that the requirements of 10 CFR Part 20, TS, and the licensee's Radiation Protection Program (RPP) were being met:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- WMDT, Rev 11, Issued October 2001
- Waltz Mill Radiation Safety Program Policies and Procedures, revised May, 12, 2003
- RPM, Revision 10, dated April 10, 2001
- WM-HP-ADMIN-105, Analytical Laboratory Administrative Procedure
- WM-HP-ADMIN-106, Dosimetry Program Requirements
- WM-HP-ADMIN-109, Radiation Protection Instrumentation Program
- WM-HP-ADMIN-112, Survey and Surveillance Program Requirements
- WM-HP-Analytical Procedure-432, Radiation Safety Analytical Equations
- WM-HP-ENVIR-22, Environmental Radiation Surveillance
- WM-HP-INST-7, Calibration of Laboratory Counters
- WM-HP-INST-11, Calibration of Continuous Air Monitors
- WM-HP-INST-12, Calibration of Count Rate Meters
- WM-HP-INST-17, Calibration of Portable Radiation Survey Meters
- WM-HP-REM-168, Visitor Dosimeter Issuance and Usage
- WM-HP-REM-324, TLD Issue Procedure
- WM-HP-SURV-220, Radiation Surveys
- TR containment building access logs from June 2000 to present
- RA-100, Gamma Spectroscopy Operation, dated March 15, 2001
- RA-300, Gas Flow Proportional Counter Instrument Operation, Dated December 15, 2001
- RA-400, Liquid Scintillation Counter Operation, dated March 28, 2002
- RSC meeting minutes from November 2000 through the present
- RSC decommissioning, facility activity, staff qualification, and licensee corrective actions audits from March 2000 through the present
- IATR 2000 Annual Report, dated February 2, 2001
- IATR 2001 Annual Report, dated February 18, 2002
- IATR 2002 Annual Report, dated February 5, 2003
- selected instrument calibration records
- Personnel dosimetry records from June 2000 to present

b. Observations and Findings

(1) Radiation Protection Program

Although individual procedures had been revised, the RPP had not appreciably changed since the last NRC inspection. The RPP was reviewed at least annually as required by 10 CFR 20.1101(c). This review and oversight were provided by the RSC as required by TS Section 6.2.4.

The inspector's review of procedure change records, RPM revisions, and radiation work permits, confirmed that the RSO specifically reviewed and approved RPP changes, experiments, and radiation protection related events/conditions as required by TS 6.1.2, FDP Section 3.2 and the RPP.

(2) Postings and Notices

During tours, the inspector 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, Subpart J. Through observations of and interviews with licensee staff and WMS security officers the inspector confirmed that personnel complied with the signs, postings and controls. No unmarked radioactive material was detected in the facility. 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.

(3) Surveys

The inspector audited annual and other periodic contamination and radiation surveys done since June 2000. They were performed and documented as required by the RSM, FDP Section 3.2.1, and TR survey procedures. HP surveys required for special decommissioning activities, such as truck door openings, radiation work permits, etc. were also performed and documented as required. Results were evaluated and corrective actions taken and documented when readings/results exceeded the licenses action levels of 200 dpm/100cm² for beta/gamma and 20 dpm /100cm² for alpha for removable contamination. The inspector's review of the survey records since June 2000, confirmed that contamination in the facility was infrequent, and acceptably monitored and controlled. The inspector determined that the survey program satisfied 10 CFR 20.1501(a) requirements.

(4) Dosimetry

The dosimetry program requirements and procedures had not changed since the last inspection. A National Voluntary Laboratory Accreditation Program-accredited vendor was used to provide dosimetry for personnel, environmental, and area monitoring. The inspector confirmed that dosimetry was being issued to staff and visitors as required by 10 CFR 20.1502, the RSM, and TR procedures. All exposures were well within NRC limits specified in 10 CFR 20.1201 and licensee's routine administrative limit of 1,000 mRem. Most records showed minimal exposure above background.

(5) Radiation Monitoring Equipment

The calibration and periodic checks of the portable survey meters, radiation monitoring instruments, and laboratory counters and analyzers were performed by the reactor staff, the HP staff, or certified vendors. The instrument calibrations are tracked using Data Ease. The inspector confirmed that the licensee's calibration procedures and annual, quarterly, semiannual and monthly calibration, test, and check frequencies satisfied TS Section 4.3.3, FDP Section 3.2.3, and 10 CFR 20.1501(b) requirements, and the American National Standards Institute N323 "Radiation Protection Instrumentation Test and Calibration" or the instrument's manufacturers' recommendations. The inspector verified that the calibration and check sources used were traceable to the National Institute of Standards and Technology and that the sources' geometries and energies matched those used in actual detection/analyses.

The inspector reviewed the calibrations performed since June 2000, and confirmed that the calibration for the portable survey meters and laboratory instruments in use had been done as required. All instruments checked had current calibrations for the types and energies of radiation they were used to detect and/or measure.

c. Conclusions

The inspector determined that, because: 1) surveys were being completed and documented as required by 10 CFR Part 20.1501(a), TS, and licensee procedures; 2) postings met regulatory requirements; 3) the personnel dosimetry program was acceptably implemented and doses were in conformance with licensee and 10 CFR Part 20 limits; and 4) portable survey meters and laboratory instruments were being maintained and calibrated as required, the RPP being implemented by the licensee satisfied regulatory requirements.

7. Inspection of Transportation Activities

a. Inspection Scope (IP 86740)

The inspector reviewed selected aspects of the following to ensure that transportation requirements of 10 CFR, 49 CFR, and licensee procedures were being met:

- Radioactive Material Control Manual, Revision 4, dated February 2000
- TR, TR-2 FDP, Revision 1, dated January 2000
- WM-HP-ADMIN-118, Radioactive Material Management Program Requirements
- WM-HP-41, Shipping of Byproduct, Source, and Special Nuclear Materials
- WM-HP-Radioactive Materials Program Procedure-515, Shipping Radioactive Material
- radioactive materials transportation and transfer records for 2001 and 2002
- Radioactive Material Waste Transfer Package LRW2001-47-RT, dated January 25, 2001
- Radioactive Material Waste Transfer Package LRW2001-78-RT, dated February 21, 2001
- Radioactive Material Waste Transfer Package LRW2001-291-RT, dated August 29, 2001
- Radioactive Material Waste Transfer Package LRW2001-337-RT, dated October 10, 2001
- IATR 2000 Annual Report, dated February 2, 2001
- IATR 2001 Annual Report, dated February 18, 2002

- IATR 2002 Annual Report, dated February 5, 2003

b. Observations and Findings

The requirements of 10 CFR 30.41, "Transfer of Byproduct Material", obligates the shipper, prior to transferring byproduct material to another entity, to verify that the transferee is authorized under 10 CFR 30.41(b) (1)-(7) to receive byproduct material and that their license authorizes the receipt of the type, form, and quantity of byproduct material being transferred.

Besides NRC regulations, shippers are required by 10 CFR Part 71, to comply with the applicable requirements of the DOT regulations in 49 CFR Parts 170 through 189.

The 49 CFR Part 173 requires that each shipper of a type 7A package maintain on file, a written document of the test and engineering evaluation or other data showing the package complies with the specification. Packages used at the TR are normally purchased from a vendor or provided by the contractor involved with the material being shipped. The inspector confirmed that the manufacturers' testing and evaluation documentation along with their packaging instructions were on file.

Approximately thirty-one (31) radioactive waste shipments were made from the TR since June 2000. Radioactive waste was sent to Envirocare, Alaron, GTS Dureteck, and other waste processors/facilities. The inspector reviewed four shipments and confirmed compliance with 10 CFR 30.41(b) (1)(7). The shipments consisted of bioshield concrete debris, metal and piping, activated metals, and scabble dust.

Through record reviews and interviews with staff, the inspector determined that: 1) boxes and drums were packaged as required by Envirocare, GTS Durateck, Alaron, and licensee and other waste processor/facility requirements; 2) radiation and contamination surveys performed prior to shipment were acceptable in scope and indicated that levels were below limits specified in 49 CFR 173.441 and 173.443; 3) the shipment manifests and other documents were prepared accurately and included all required information, including the shipper's certification, as specified in 10 CFR Part 20 Appendix G and, 49 CFR Parts 172 and 173; 4) Emergency response information and monitored telephone contacts were as required; and 5) marking and placarding were as required by 49 CFR Part 172, Subparts D, E, and F.

c. Conclusions

Based on the records reviewed and interviews performed, the inspector found the radioactive waste was disposed of as required by FDP Section 3.3, 10 CFR Part 71, Department of Transportation 49 CFR Parts 172 and 173, and licensee procedures.

8. Physical Security

a. Inspection Scope (IP 81401)

The inspector reviewed selected aspects of the following to evaluate the WMS access control capability:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- Westinghouse Electric Company Nuclear Services Security Manual (NSSM), latest revision September 23, 2003
- TR, TR-2 FDP, Revision 1, dated January 2000
- WM-HP-TR-001, Access Control Plan
- TR containment building access logs from June 2000 to present
- security systems, equipment and instrumentation
- implementation of the Waltz Mill NSSM

b. Observations and Findings

Although a NRC approved, security plan is not required for the WMS industrial complex, access to the site is controlled by use of fences and barriers, gates and secured access points, and identification and badging procedures. The inspector toured the WMS and confirmed that the physical protection systems (barriers and alarms), equipment, and instrumentation were as required by the NSSM and TR procedures.

Access to the reactor was described in FDP Section 2.2.2.1 and performed in accordance with WMDT Section 1.6, "Access Control Plans", and the NSSM. During the inspection, the inspector reviewed the access procedures, observed personnel entries into the reactor containment, and interviewed staff, security guards, and the Security/Emergency Medical Team Captain. Through these reviews, observations, interviews, and entree into the reactor containment, the inspector confirmed that access was controlled as required.

c. Conclusions

The physical protection features of the WMS and TR, the equipment, procedures and access control, met the access control plan, FDP, NSSM, and satisfied site procedures.

9. Effluents and Environmental Monitoring

a. Inspection Scope (IP 69001)

The inspector reviewed selected aspects of the following to ensure compliance with 10 CFR Part 20 and TS Sections 3.4, 4.3, 4.4, and 6.6 requirements:

- TS for the TR, WMS, Amendment No. 12, dated May 25, 2000
- WM-HP-ADMIN-118, Radioactive Material Management Program Requirements
- WM-HP-22, Environmental Radiation Surveillance, Revision 8
- WM-HP-ALARA-496, Estimating Concentrations of Airborne Radioactivity
- COMPLY Code results for the TR

- liquid effluent counting and analysis records from June to present
- gaseous effluent counting and analysis records from June to present
- IATR 2000 Annual Report, dated February 2, 2001
- IATR 2001 Annual Report, dated February 18, 2002
- IATR 2002 Annual Report, dated February 5, 2003

b. Observation and Findings

Since no fuel is on site, the only gaseous effluents are those produced during dismantlement and other decommission operations. The inspector audited the gaseous releases since June 2000. The results were calculated using the Environmental Protection Agency COMPLY code. The inspector's review of these releases confirmed that they met 10 CFR Part 20, Appendix B and TS Section 3.4 limits, TS Section 4.4 requirements, and the annual dose constraint specified by 10 CFR 20.1101(d).

As noted in Section 3, Decommissioning and Maintenance Activities, water removed from the TR was treated and processed as radioactive waste. All water was processed through the site liquid waste processing systems, analyzed, and discharged to the municipal sanitary sewer system as required by 10 CFR 20.2003 and TS Section 3.4.3.2. The inspector's review of these releases found that they were well below 10 CFR 20, App. B, Table 3 limits.

Environmental monitoring for the TR is being performed under the SNM-770 license. TS Sections 3.4 and 4.4 require that the SNM-770 monitoring continue to be implemented during decommissioning of the TR facility. Direct radiation was measured with a number of TLDs throughout the site and along the perimeter of the central operation area. Three environmental air sampling stations are located at 800-ft, 1200-ft, and 3600-ft downwind of the stack. Another is located 500-ft upwind of the stack. Soil and vegetation samples were collected annually from locations along the site boundary.

These direct radiation measurements resulted in readings within the unrestricted areas being statistically indistinguishable from background. Results of vegetation, soil, and water sample analyses also showed no statistical difference from the background.

c. Conclusion

Gaseous and liquid effluents releases were well below 10 CFR 20, App. B limits. Doses to the public were also well below 10 CFR 20.1301(a) and 10 CFR 20.1101(d) limits.

13. Exit Interview

The inspection scope and results were summarized on October 7, 2003, with licensee representatives. The inspector discussed the findings for each area reviewed. The licensee acknowledged the findings.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

*R. Smith	Viacom Director - Environmental Remediation
*W. D. Vogel	Waltz Mill Radiation Safety Officer
*A. J. Nardi	Westinghouse License Administrator
D.S. DeArmit	Westinghouse Security/EMT Captain
T. Frencheck	Counting Laboratory Technician
R. Hill	Counting Laboratory Quality Control Manager

* attended exit interview

INSPECTION PROCEDURES USED

IP 40755	Class III Non-power Reactors
IP 69001	Class II Non-Power Reactors
IP 81401	Plans, Procedures, and Reviews
IP 86740	Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ADMIN	Administrative Procedure
CFR	Code of Federal Regulations
DOT	Department of Transportation
ERP	Emergency Response Plan
FDP	Final Decommissioning Plan
HP	Health Physics
HPP	Health Physics Procedure
IP	Inspection Procedure
LCO	Limiting Condition for Operations
NRC	Nuclear Regulatory Commission
NSSM	Westinghouse Electric Company Nuclear Services Security Manual
REM	Radiation Exposure Management Procedure
RPM	Radiation Protection Manual
RPP	Radiation Protection Program
RSC	Reactor Safety Committee
SURV	Surveys & Surveillance Procedure
TR	Test Reactor
TS	Technical Specifications
WM	Waltz Mill
WMS	Waltz Mill Site
WMDT	Waltz Mill Westinghouse Test Reactor Decommissioning Project Manual