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VIACOM

March 9, 2001

Document Control Center
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: Viacom Inc.
Westinghouse Test Reactor TR-2; Docket No. 50-22
2000 Annual Report

In accordance with Section 6.6.1 of the Westinghouse Test Reactor (TR-2) Technical Specifications, a written annual report covering the status of the test reactor decommissioning is attached. The report covers the period beginning January 1, 2000 through December 31, 2000.

Also, pursuant to 10CFR50.59 (2) and as specified in 10CFR50.4, a report containing a brief description of the changes made in 2000 to the TR-2 license under the provisions of 10 CFR 50.59 including a summary of the safety evaluation has been incorporated.

If you have any questions regarding this matter, please write or call me at the above address and telephone number or contact Mr. Wayne Vogel at (724) 722-5924.

Sincerely,



Richard K. Smith
Director - Environmental Remediation

Attachment 1 - 2000 Annual Report

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Attachment 1

2000 Annual Report

**Waltz Mill Facility
Westinghouse Test Reactor
License No. TR-2
Docket No. 50-22**

Viacom Inc.

January 1, 2000 - December 31, 2000

2000 ANNUAL REPORT FOR RETIRED WESTINGHOUSE TEST REACTOR

U.S.N.R.C. LICENSE TR-2

DOCKET 50-22

EXECUTIVE SUMMARY

During the reporting period of January 1, 2000 through December 31, 2000, the Waltz Mill Decommissioning Project Team (WMDT) continued implementing the Westinghouse Test Reactor (WTR) Final Decommissioning Plan as approved by the NRC in Amendment 8 of the TR-2 License. The objective of the approved decommissioning plan is to terminate the TR-2 License. As described in the Decommissioning Plan, this is to be accomplished by removing the reactor tank, its internals and portions of the biological shield. This objective will also be met by providing the NRC sufficient documentation to demonstrate that the license termination requirements have been met including all documentation required for transferring the remaining residual radioactivity and WTR Facilities to the SNM-770 License.

Site decommissioning activities are conducted in accordance with approved procedures, work packages and the TR-2 License. All WTR work packages are reviewed and approved by the TR-2 Radiation Safety Committee (RSC). The RSC monitors decommissioning operations to ensure they are performed safely and according to federal, state and local regulatory requirements (NRC, EPA, PADEP, DOT, etc.).

Both site and project radiological controls personnel continue to monitor the radiological conditions at the site to assure protection of the health and safety of the general public and site personnel.

This report reviews those activities as required by the Technical Specifications Section 6.6.1 and includes the following:

1. A narrative summary of facility activities.
2. Tabulation of the major preventative and corrective maintenance operations having safety significance.
3. A brief description of major changes in the reactor facility and procedures and activities significantly different from those performed previously and not described in the safety analysis report, and a summary of the safety evaluation that shows no unreviewed safety questions were involved. (per 10CFR50.59 (2))
4. A summary of the nature and amount of radioactive effluents released or discharged to the environs beyond the effective controls of the licensee as determined at or before the point of such releases or discharge. The summary shall include to the extent practical, an estimate of the major individual radionuclides present in the effluent. If the estimated average release after dilution or diffusion is less than 25% of the concentration allowed or recommended, a statement to this effect is sufficient.
5. A summarized result of the environmental survey performed outside the facility.

A Narrative Summary of Facility Activities.

Facility Operations

In 2000, the Waltz Mill Decommissioning Team (WMDT) continued to implement the Westinghouse Test Reactor Final Decommissioning Plan as approved by the U.S. Nuclear Regulatory Commission by Amendment 8 to the TR-2 License on September 30, 1998. A majority of the work performed was removing the reactor tank, its internals and portions of the biological shielding. Some general area decontamination and clean up was also performed. A list of significant activities is provided below:

- Completed removal of bioshield surrounding the reactor tank and shipped to burial site.
- Completed removal of reactor tank and internals and shipped to processor.
- Completed removal of main cooling piping.
- Completed decontamination and surveys of the two Test Loop Cubicles.
- Initiated decontamination of the Top Loop Tunnels.
- Completed decontamination of the Rabbit Pump Room.
- Completed asbestos abatement of accessible areas in the containment.
- Completed removal of equipment and debris from the Transfer Canal.
- Completed dewatering of the Transfer Canal.
- Collected core samples from the Transfer Canal.
- Initiated removal of contaminated surfaces in the Transfer Canal.
- Initiated removal of contaminated surfaces in the Primary Coolant Tunnel.

ALARA Data

All decommissioning activities were planned and conducted in accordance with the site ALARA policy and comprehensive safety programs. WMDT places the highest priority on conducting the Waltz Mill Decommissioning Project safely and maintaining exposure to ionizing radiation ALARA. An ALARA summary for the WTR facilities decommissioning activities is provided in attached Table A.

Regulatory Interfaces

Throughout the year, the licensee communicated frequently with the USNRC. These communications took place via written correspondence, telephone calls and meetings. Significant results are noted below:

- Viacom and Westinghouse submitted monthly updates to the NRC on the status of the decommissioning activities underway at Waltz Mill.
- The NRC conducted an inspection of the TR-2 Decommissioning Project on January 17-19, 2000. The inspection was coordinated with the removal of the first concrete block from the WTR bioshield. No violations were identified, but three OSHA related concerns were identified. Overall, the inspector stated that the Project appears to be following the Decommissioning Plan and the Radiation Safety Committee is doing its job. A follow-up email was sent to the inspector on January 28 providing some additional information on the three OSHA related concerns.
- On January 24, 2000, representatives from the PADEP and NRC visited Waltz Mill to review the status of the site's remediation projects. Information gathered during this visit to Waltz Mill and other sites in western Pennsylvania will be used in PADEP's preparations to become an agreement state in the next few years.
- 1999 Annual Report for the TR-2 License was issued in March.

- One NRC Headquarters representative conducted a routine, announced inspection of the Decommissioning Project on April 19-21. The purpose of the inspection was to observe the reactor tank down-ending process. This was followed up with an inspection the following week (April 26-28) by a representative from NRC Region 1, who observed the reactor tank loading and packaging in preparation for movement to the on-site rail spur. No items of non-compliance were identified during the two inspections.
- A routine announced inspection of the Westinghouse Test Reactor Decommissioning Project was conducted on May 15 by a representative from NRC headquarters. The purpose of the inspection was to observe the rail transport of the test reactor tank from Waltz Mill to Alaron. No items of non-compliance were identified.

Radiation Safety Committee Activities

The Radiation Safety Committee (RSC) for the TR-2 license provided management oversight and review of the WTR decommissioning activities. During 2000, the RSC met four times, and among other activities, reviewed WTR work packages prior to their implementation; proposed changes to the facility and its technical specifications; reviewed procedures and their revisions that could have a significant impact on radiation safety; and reviewed and approved pursuant to 10CFR50.59 that the proposed activities would not constitute a change in the technical specifications or an unreviewed safety question without prior NRC approval.

Pursuant to 10CFR50.59, the RSC reviewed a proposed change to the NRC approved Decommissioning Plan for the Westinghouse Test Reactor to determine if the proposed activity would constitute a change to the technical specifications or an unreviewed safety question. The proposed change would increase the size of the biological shield blocks which can be moved in containment from 6.5 tons to 15 tons. Upon completion of the review of the safety evaluation, the RSC determined that the proposed change did not constitute an unreviewed safety question or a change to the Technical Specifications. See also item 3 below.

In accordance with the Section 6.2.4 of the TR-2 Technical Specifications, the RSC conducted independent audits of decommissioning activities - specifically, an audit of "facility activities for conformance to the Technical Specifications and License" (6.2.4.1) and "The results of actions taken to correct those deficiencies that may occur in the reactor facility equipment, systems, structures or methods of operations that affect facility safety" (6.2.4.3). These audits were performed on November 17 and 19, 2000. Audit deficiencies were documented and corrective actions were immediately initiated by the project. The auditors concluded that the WTR facility activities were being conducted in accordance with the Technical Specifications and the TR-2 License.

Organizational Changes

CBS Corporation has become Viacom Inc. This name change is reflected in Amendment 12 of the TR-2 license.

The current management organization relative to the administration of License TR-2 is as follows:

- Broadus Bowman, Viacom Decommissioning Project Director, is the senior site manager having responsibility for the retired WTR facilities.
- Russell G. Cline remains as the Manager, Industrial Hygiene, Safety, and Environmental Compliance (IHSEC).
- Wayne D. Vogel, Radiation Safety Officer, reports directly to Mr. Cline.

A current organization chart is attached.

Summary

In summary, work on the TR-2 Decommissioning Plan has been authorized by the NRC. Work on Phase I, Facility Preparations & Engineering, is complete. Phase II, Reactor Tank Removal, platform and structural interference and bioshield removal are complete. Phase III, Building & Structures Remediation, is in progress and scheduled to complete in the second quarter of 2001. A current project schedule is attached.

2. Tabulation of the major preventative and corrective maintenance operations having safety significance.

Since reactor fuel was removed from the reactor and the site decades ago, the Westinghouse Test Reactor as described in the Decommissioning plan and in the Technical Specifications does not contain any nuclear safety related equipment.

3. A brief description of major changes in the reactor facility and procedures and activities significantly different from those performed previously and not described in the safety analysis report, and a summary of the safety evaluation that shows no unreviewed safety questions were involved.

Pursuant to 10CFR50.59 (2) and as specified in 10CFR50.4, the following provides a brief description of the changes made in 2000 to the TR-2 license under the provisions of 10 CFR 50.59 and includes a summary of the safety evaluation that was performed.

In 2000, license reviews of work packages and procedures were performed to provide administrative controls over physical or procedural activities to preclude adverse impacts on the safe dismantling and decommissioning operations conducted under the TR-2 License. During this time, only one proposed activity required a safety evaluation pursuant to 10 CFR50.59.

Proposed change to the WTR Decommissioning Plan

A 10 CFR 50.59 Safety Evaluation on a proposed change to the TR-2 Decommissioning Plan to revise the size of the bioshield block that would be moved in containment from 6.5-tons to 15-tons was conducted and reviewed by the TR-2 Radiation Safety Committee (RSC). On December 15, 1999, the TR-2 Radiation Safety Committee reviewed and approved a 10CFR50.59 Safety Evaluation allowing the removal of the reactor tank, in one piece, through the truck lock. At the time of this evaluation, the size of the concrete block was limited to 6.5-tons to minimize the impact of a dropped block on the canal. As the removal of the biological shield reaches a lower elevation, the potential impact of a dropped block becomes less significant to the containment floor or the transfer canal. Therefore, as a process improvement it is

desired to increase the weight of the concrete that could be moved over a specified safe load path. This process improvement reduces the handling time in containment and as a result would be ALARA. The RSC concluded that, based on the information provided, a change to the Technical Specifications is not needed to implement the proposed change and the proposed change does not constitute an unreviewed safety question.

The proposed change to the WTR Decommissioning Plan applies to Section 2.1 and the new Option 3 approved by the RSC via 10 CFR 59.59 Evaluation on December 15, 1999. The proposed change would allow the movement of concrete blocks up to 15 tons. The movement of the larger blocks would be authorized only along an approved load path, as described in the Work Package Change Notice (WPCN), and only for the purposes of moving the blocks to an area where they can be further reduced for packaging and removal from containment.

Safety Evaluation

The original accident analysis considered a 50-ton concrete block dropped from the top of containment to the containment floor. This proposed change is within the original accident analysis. In addition, two other dropped block cases were analyzed: Case 1 – A block drop on to the bioshield wall from a height of four feet and Case 2 – The block drops to the 16-ft elevation.

For Case 1 – The bioshield wall is supported on the canal walls (EL 16'0"). The analysis considered a drop from EL 33'8" to EL 32'3" and from EL 32'3" to EL 26'0". The massiveness of the bioshield wall helps absorb the impact of a dropped block and the analyses showed that the canal walls can adequately withstand a dropped block on to the bioshield.

For Case 2 – The scenario has been analyzed and was presented in the transfer canal evaluation (WMDT-99-058); refer to the summary on page 6 of the evaluation calculations. In order to reduce the impact of a 15-ton block dropped from EL 37'8" to the containment floor at EL 16'0", a thicker layer of sand will be required. Based on the analysis, a 24" layer of sand would be adequate to prevent damage to the canal walls.

1. *Would the proposed activity increase the probability of occurrence of an accident evaluated previously in the Decommissioning Plan?*

No, the probability of occurrence does not change. The proposed lift of 15-ton concrete block is within the scope of the original accident evaluation and no limit was placed on the number of lifts.

2. *Would the proposed activity increase the consequences of an accident evaluated previously in the Decommissioning Plan?*

The proposed activity would not increase the consequences of an accident previously evaluated. See below.

3. *Would the proposed activity create the possibility of an accident of a different type than previously evaluated in the Decommissioning Plan?*

The current accident analysis described in the Decommissioning Plan and the NRC's Safety Evaluation considered the following accident scenarios:

- a. Dropping of concrete block/rubble
- b. Fire/Explosion
- c. Canal sediment criticality and handling
- d. Rupture of a high efficiency particulate air (HEPA) vacuum bag

For the purposes of the safety evaluation, the original accident analysis postulated a total of 148 tons for both the tank and the concrete and dropping a 50-ton block of concrete resulting in 1000 pounds of dust going airborne. The proposed change would not exceed the worst case accident condition.

4. *Does the proposed activity reduce the margin of safety as defined in the basis for any Technical Specifications?*

The proposed increase in size of the concrete block up to 15-tons does not reduce the margin of safety as defined in the basis for the Technical Specifications.

Conclusion

Based on this evaluation, the RSC determined that the proposed change does not represent an unreviewed safety question and can be implemented under the provisions of 10 CFR 50.59.

4. **A summary of the nature and amount of radioactive effluents released or discharged to the environs beyond the effective controls of the licensee as determined at or before the point of such releases or discharge. The summary shall include to the extent practical, an estimate of the major individual radionuclides present in the effluent. If the estimated average release after dilution or diffusion is less than 25% of the concentration allowed or recommended, a statement to this effect is sufficient.**

Low Level Radioactive Waste

Low-level radioactive, solid debris and dry active waste from the WTR was collected, packaged and transported for either processing or burial at a licensed facility. During 2000, 58,602 cubic feet of LLW containing 26.5 Ci was shipped for disposal. The WTR reactor tank was shipped to Alaron, LLW was shipped to GTS Duratek for processing and volume reduction. Concrete was shipped to Envirocare for burial. The 2000 waste shipments are summarized in the Table B.

All 129,420 gallons of contaminated water from the WTR collected during 2000 was processed through an on-site water treatment system. The primary source of water was the transfer canal. All water collected was processed, analyzed and shipped to a public sanitary sewage treatment facility in accordance with 10CFR20.2003. The collected water was processed along with water from the SNM-770 license. After processing, the activity of the water was less than 20% of the 10 CFR 20, Appendix B, Table 3 limits. The total activity disposed, from both licenses, was 2,328 μ Ci tritium and 225 μ Ci other beta-gamma emitters.

Airborne Releases

In order to support decommissioning activities in the WTR, a HEPA ventilation unit was installed to maintain negative pressure in containment and to provide for a controlled and monitored discharge of airborne activity. The stack is continuously monitored for air particulate. The filter samples are typically collected weekly and analyzed for gross beta and alpha activity. The average monthly concentration is then determined from this data. During 2000, the estimated average release measured at the point of discharge was less than 25% of the 10 CFR 20, Table 2, Column 2 concentration. This determination was made using the most restrictive radionuclides possibly present (Sr-90/Pu-239). A summary of the releases from the WTR ventilation system is contained in Table C.

In accordance with Regulatory Guide 4.20, "Constraint on Releases of Airborne Radioactive Materials to The Environment For Licensees Other Than Power Reactors" the facility is in compliance with 10 CFR 20.1101(d). This was determined using the COMPLY program (V1.6) and the data from Table B. The COMPLY Code determined the facility was in compliance at Screening Level 1.

Liquid Effluent Releases

There were no discharges of liquid effluents to the environs from the WTR in 2000. All liquid waste was processed and discharged to a sanitary sewage in compliance with 10 CFR 20.2003.

5. A summarized result of the environmental survey performed outside the facility.

Environmental monitoring associated with the WTR decommissioning is in accordance with the programs and requirements of the SNM-770 license. Various environmental media and pathways are sampled under the SNM-770 License. Only media and pathways relevant to the WTR decommissioning are summarized in this report. Since there have been no discharges of liquids to the environs in 2000, the data presented is limited to the media and pathways relevant to airborne releases and direct radiation.

Direct radiation was measured with a series of TLDs deployed throughout the site and along the perimeter of the Central Operations Area. The TLDs contain aluminum oxide TL material with a dose reporting level of 0.1 mrem/quarter. Data collected from the TLDs near the WTR facility is summarized in Table D. Radiation levels recorded include those associated with activities under the SNM-770 license.

Three environmental air sampling stations are located approximately 800-ft, 1200-ft and 3600-ft downwind of the WTR stack. A third station is located approximately 500-ft upwind of the stack. A measured volume of air is drawn through a particulate filter. The filters are collected and analyzed weekly for gross alpha and beta activity using a gas-flow proportional counter. The downwind air samplers are also downwind of several stacks associated with the SNM-770 license.

Surface soil samples are collected annually from four locations north, south, east, and west along the site boundary. The samples are collected to a depth of 15-cm. Gamma isotopic and strontium-90 analyses are performed on each sample.

Vegetation samples are collected annually at the same locations as the soil samples. Gamma isotopic and strontium-90 analyses are performed on each sample.

A summary of the SNM-770 environmental measurements relevant to the WTR Decommissioning Project is contained in Table D.

Table A
WTR Facilities Decommissioning Activities ALARA Summary

WTR Facility Area	Proposed Decommissioning Activity	Estimated Exposure (Person-rem)	ALARA Exposure Goal (Person-rem)	Actual Exposure by SRD (Person-rem) (6)	Status
Pre-Decommissioning Activities	Establish Radiological Controls.	0.050	0.040	0	Inactive - Complete.
Reactor Tank, Internal Contents, and Biological Shield	Biological Shield sectioning and removal, one piece Reactor Tank & internal component removal	18.91 (5)	15.128	7.368 (4)	Reactor Tank removal complete. Bioshield removal to facilitate Reactor Tank removal complete.
Sub Pile Room	Components removed, concrete decontamination, and partial or full demolition.	0.850	0.680	0.270 (1), (2)	Component removal complete. Awaiting concrete decontamination and partial or full demolition.
Rabbit Pump Room	Components removed, concrete decontamination, and partial or full demolition.	0.080	0.064	0.017	Component removal and interior decontamination complete.
Test Loop Cubicles/Dump Tank Pits	Components removed, concrete decontamination, and partial or full demolition.	0.410	0.328	0.208 (1), (2)	Components removed. Aggressive decontamination of concrete in Test Loop Cubicles completed. Dump Tank Pits awaiting decontamination.
Primary Coolant Pipe Tunnel	Piping removed, concrete decontamination, and partial or full demolition.	1.880	1.504	0.285 (2)	Component and asbestos removal complete. Aggressive decontamination of concrete nearing completion.
Transfer Canal	Water drained, sediment removed, concrete decontaminated, and partial or full demolition.	7.930	6.344	3.428 (1), (2)	Dewatering, sludge, sludge, component and debris removal complete. Aggressive decontamination of concrete in progress.
Vapor Containment Building and Misc. systems and components	Miscellaneous systems and components decontaminated and/or removed, concrete and structure surfaces decontaminated, and Polar Crane decontaminated.	0.890	0.712	0.370 (3)	Electrical, misc. piping and component, and existing ventilation removal complete. Structural removal is complete. Vapor Containment Building and Polar Crane evaluation in progress.
Totals		31.000	24.800	11.946	

Notes:

- (1) Dose attributed to the installation of temporary power and lighting, installation of new ventilation, routine tours, routine maintenance, Asbestos removal, installation of the Truck Lock door, inspection and repair of the Polar Crane, and routine HEPA unit/vacuum maintenance prior to the year 2000 was divided equally between the major activities of Reactor Tank/Bioshield, Sub Pile Room, Test Loop Cubicles/Dump Tank Pits, and Vapor Containment Building/misc. systems and components as they were preliminary or continuing integral parts of the major activities. Dose attributed to routine tours and HEPA unit/vacuum maintenance for the year 2000 was divided equally between Reactor Tank/Bioshield and Transfer Canal. Dose attributed to routine maintenance for the year 2000 was divided equally between Reactor Tank/Bioshield, Transfer Canal, and Vapor Containment Building/misc. systems and components.
- (2) Dose attributed to Health Physics support prior to the year 2000 was divided equally between the four identified active major activities in (1) and the Primary Coolant Pipe Tunnel. Dose attributed to Health Physics Support for the year 2000 was divided equally between Reactor Tank/Bioshield and Transfer Canal.
- (3) Contains dose attributed to miscellaneous structural removal, existing electrical removal, miscellaneous piping and component removal, and existing ventilation removal in addition to (1) and (2) above.
- (4) Contains dose attributed to the major activity, exploratory work on the Reactor Tank, core stabilization, and trunnion reinforcement in addition to (1) and (2) above.
- (5) Estimate is for Option (3), which includes the removal of the Biological Shield, attachment of shielding plates to the Reactor Tank, and down-ending and removal of the Reactor Tank, with internal components intact, out of the Containment Building through the Truck Lock.
- (6) Data through 12-31-00.

Table B
2000 Solid Waste Shipments For WTR

Shipment Id.	Date	Destination	Activity	Gross	Gross	Waste Type
			mCi	Pounds	Cubic Feet	
2000-002-RT	1/12/00	GTS	24.6	40,300	1,360	Pipe and Metal
2000-006-RT	1/24/00	GTS	24.2	25,600	1,360	Pipe and Metal
2000-009-RT	2/26/00	GTS	38.2	17,640	1,360	Metal & DAW
2000-011-RT	3/2/00	GTS	2.98	33,670	1,360	Concrete block from Chem.
2000-012-RT	3/2/00	GTS	3.11	34,800	1,360	Concrete block from Chem.
2000-013-RT	3/6/00	GTS	45.5	37,000	1,360	Pipe and Metal
2000-014-RT	3/6/00	GTS	28.4	17,000	1,360	Primary Coolant Pipe
2000-016-RT	3/29/00	GTS	24.6	29,970	2,720	Metal / DAW / P.C.Pipe
2000-017-RT	3/29/00	GTS	52.1	29,700	1,360	Metal / DAW
2000-019-RT	4/14/00	GTS	43.8	31,000	1,360	Metal
2000-027-RT	5/5/00	GTS	48.9	29,300	2,720	Metal / DAW / P.C.Pipe
2000-029-RT	5/15/00	Alaron	23,800	247,000	1,620	WTR Reactor Tank
2000-030-RT	5/29/00	Envirocare	3.45	195,479	3,232	WTR Concrete Monolith
2000-031-RT	5/29/00	Envirocare	3.48	197,386	2,828	WTR Concrete Monolith
2000-032-RT	5/29/00	Envirocare	3.49	198,275	2,424	WTR Concrete Monolith
2000-033-RT	5/29/00	Envirocare	3.41	193,574	2,222	WTR Concrete Monolith
2000-035-RT	5/29/00	Envirocare	3.48	197,267	2,222	WTR Concrete Monolith
2000-037-RT	6/9/00	Envirocare	3.5	199,026	2,828	WTR Concrete Monolith
2000-038-RT	6/9/00	Envirocare	3.07	174,350	2,222	WTR Concrete Monolith
2000-039-RT	6/9/00	Envirocare	2.77	157,525	1,616	WTR Concrete Monolith
2000-040-RT	6/9/00	Envirocare	3.17	180,050	1,818	WTR Concrete Monolith
2000-041-RT	6/9/00	Envirocare	3.3	187,825	2,828	WTR Concrete Monolith
2000-042-RT	6/9/00	Envirocare	3.43	194,900	2,828	WTR Concrete Monolith
2000-047-RT	6/22/00	GTS	69.5	31,500	96	Metal / DAW
2000-048-RT	6/21/00	GTS	45.5	21,800	1,360	Primary Coolant Pipe
2000-049-RT	6/28/00	Envirocare	0.01	36,400	1,360	Chem Cell Concrete
2000-050-RT	6/28/00	Envirocare	0.03	35,500	1,360	Chem Cell Concrete
2000-051-RT	6/28/00	Envirocare	0.07	33,000	1,360	Chem Cell Concrete
2000-057-RT	7/28/00	GTS	30.18	12,800	1,056	WTR Transfer Canal Debris
2000-090-RT	10/11/00	GTS	84.2	3,180	120	Transfer Canal Sludge
2000-101-RT	10/25/00	Envirocare	16.7	168,675	1,650	WTR Bioshield
2000-103-RT	10/20/00	GTS	638.3	3,780	52	Transfer Canal Sludge
2000-110-RT	10/27/00	GTS	395.2	6,780	120	Transfer Canal Sludge
2000-117-RT	11/17/00	Envirocare	2.2	3,800	980	WTR Vertical Pipe Chase
2000-130-RT	12/20/00	GTS	144.6	36,700	2,720	DAW / Metal Melt
Totals			25,599.43	3,042,552	58,602	
		Alaron	23,800	247,000	1620	
		GTS	1,743.87	442,520	23,204	
		Envirocare	55.56	2,353,032	33,778	

Table C
Summary of Releases from the WTR
Ventilation System

Month (No. of Samples)	Average Gross Beta (Range) μCi/ml	Beta Activity Discharged μCi	Average Gross Alpha (Range) μCi/ml	Alpha Activity Discharged μCi
Jan-00 (4)	7.6E-15 (5.8E-15 - 1.1E-14)	0.122	2.7E-16 (1.2E-16 - 4.4E-16)	0.004
Feb-00 (4)	6.0E-15 (4.4E-15 - 8.9E-15)	0.101	7.5E-16 (1.3E-16 - 1.0E-15)	0.013
Mar-00 (5)	5.1E-15 (3.7E-15 - 6.4E-15)	0.102	4.6E-16 (3.2E-17 - 7.6E-16)	0.009
Apr-00 (4)	6.4E-15 (5.2E-15 - 9.0E-15)	0.109	1.0E-15 (2.5E-16 - 1.8E-15)	0.017
May-00 (4)	7.7E-15 (4.1E-15 - 1.3E-14)	0.132	1.3E-15 (8.9E-16 - 1.9E-15)	0.021
Jun-00 (5)	5.1E-15 (3.6E-15 - 6.1E-15)	0.104	5.2E-16 (2.6E-17 - 9.0E-16)	0.011
Jul-00 (4)	4.2E-15 (3.6E-15 - 5.5E-15)	0.062	7.7E-16 (4.8E-16 - 9.5E-16)	0.012
Aug-00 (5)	1.7E-14 (4.1E-15 - 5.2E-14)	0.254	8.9E-16 (5.2E-16 - 2.0E-15)	0.014
Sep-00 (5)	4.3E-15 (3.1E-15 - 6.8E-15)	0.092	2.3E-15 (1.4E-16 - 1.0E-14)	0.055
Oct-00 (4)	4.1E-15 (2.6E-15 - 5.9E-15)	0.063	5.7E-16 (1.9E-16 - 8.0E-16)	0.009
Nov-00 (4)	7.8E-15 (5.6E-15 - 9.5E-15)	0.129	3.8E-16 (5.2E-17 - 1.2E-15)	0.007
Dec-00 (4)	8.5E-15 (4.9E-15 - 1.8E-14)	0.101	1.2E-15 (3.2E-16 - 2.3E-15)	0.014
Annual (52)	7.1E-15 (2.6E-15 - 5.2E-14)	0.114 (0.062 - 0.254)	8.4E-16 (2.6E-17 - 1.0E-14)	0.0155 (0.004 - 0.055)

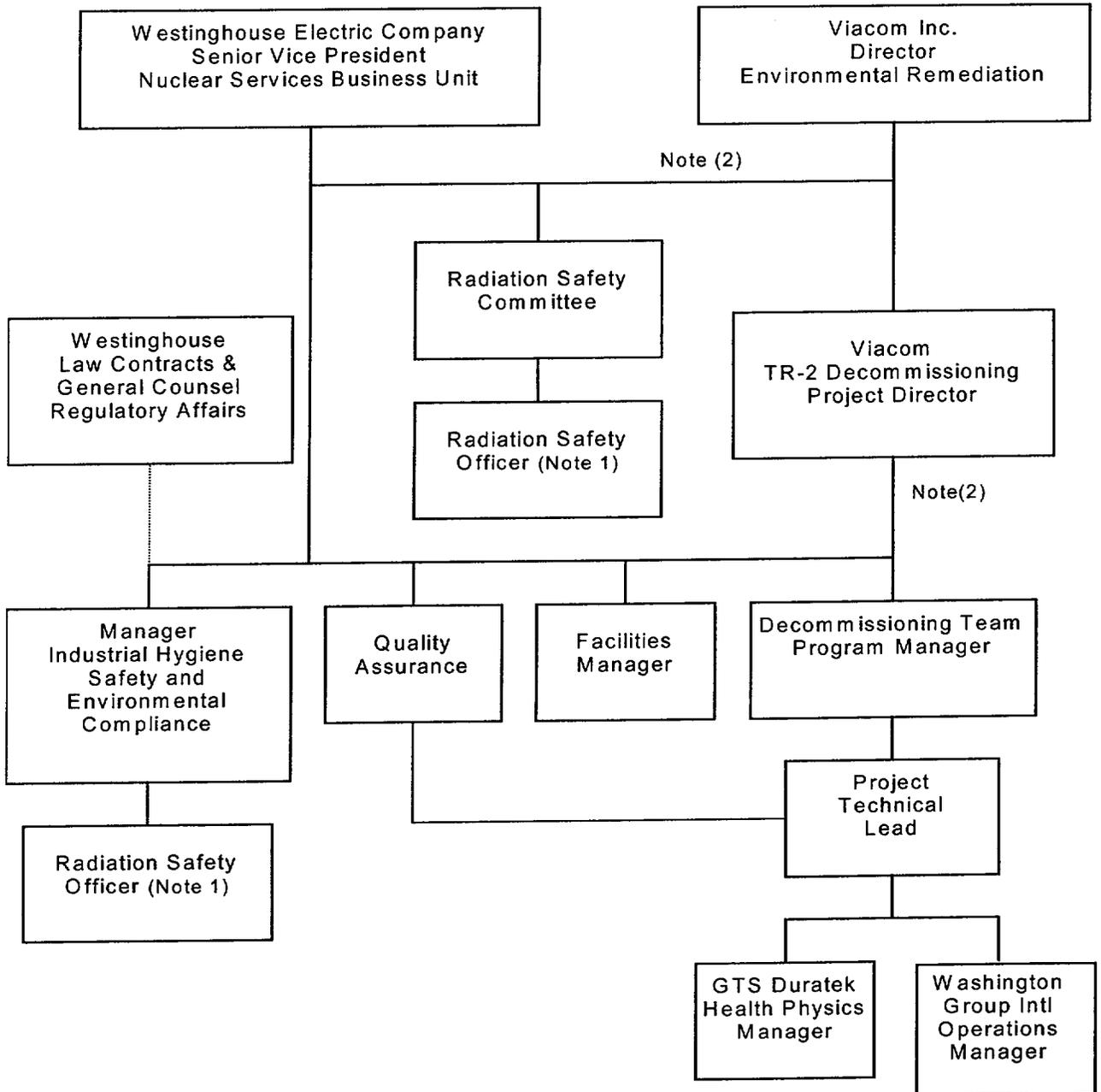
TABLE D
ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

Facility: Westinghouse Test Reactor
Docket No.: 50-22

Location: Westmoreland County
Reporting Period: January 1 to December 31, 2000

Medium or pathway Sampled (Unit of Measurement)	Type and Number of Analyses Performed	Lower Limit Of Detection (LLD)	All Indicator Locations Mean (Range)	Control Location Result
Direct Radiation (mrem/year)	TLD (5)	0.1 mrem/quarter	32.2 ± 10.4 (19.4 – 47.2) <u>Location</u> 500 ft S of Rx <u>mrem</u> 90-ft W of Rx 25.5 200-ft NW of Rx 53.0 400-ft NE of Rx 63.7 1150-ft E of Rx 88.8 95.4	54.4 (5400-ft W of Rx)
Air Particulate (pCi/m ³)	Gross Beta (87)	0.003	0.037 ± 0.016 (0.004 – 0.100)	0.046 ± 0.015 (0.022 - 0.095)
	Gross Alpha (87)	0.001	0.002 ± 0.001 (0.001 – 0.004)	0.002 ± 0.001 (0.001 - 0.006)
Surface Soil (pCi/gram-dry)	Gamma Spec (4) Cs-137	0.3	0.78 ± 0.49 (0.38 – 1.32)	0.190 ± 0.04
	Co-60	0.05	<LLD	<LLD
	Strontium-90	0.3	0.52 ± 0.13 (0.43 - 0.61)	<LLD
Vegetation (pCi/gram-ash)	Gamma Spec (4) Cs-137	0.3	1.59 ± 0.79 (0.79 – 2.38)	0.46 ± 0.40
	Co-60	0.3	<LLD	<LLD
	Strontium-90	0.3	2.31 ± 0.13 (2.22 – 2.40)	1.65 ± 0.19

WTR DECOMMISSIONING PROJECT ORGANIZATION



Notes:

- 1) The Radiation Safety Officer reports to the Industrial Hygiene, Safety and Environmental Compliance Manager and is also the Secretary of the Radiation Safety Committee.
- 2) Denotes a contractual relationship.