



Westinghouse  
Electric Corporation

Water Reactor  
Divisions

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LA 85-98

December 16, 1985

U. S. Nuclear Regulatory Commission  
Office of Nuclear Regulation  
Division of Reactor Licensing  
Washington, D. C. 20555

Attention: Branch Chief, Standardization and Special Projects Branch

Gentlemen:

Subject: Annual Report - License No. TR-2, Docket 50-22

The Westinghouse Electric Corporation transmits herewith the attached "Annual Inspection of Retired WTR per License TR-2" for 1985. This report has been prepared in compliance with the requirements of Facility License No. TR-2, Docket 50-22. The status of the retired facility remains the same as it was at the time of the last report.

If you have any questions regarding this matter, please write me at the above address or telephone me on (412) 256-6054.

Very truly yours,

A. J. Nardi, Manager  
NES License Administration

AJN/pe/0059w:12

Attachment

Copies Transmitted: 3 notarized & 10 conformed

COMMONWEALTH OF PENNSYLVANIA)  
COUNTY OF ALLEGHENY)

ss.

Sworn and subscribed before me this

18<sup>th</sup> day of December, 1985

Pamela Long Moore  
Notary Public

PAMELA LONG MOORE, NOTARY PUBLIC  
CHURCHILL BORO, ALLEGHENY COUNTY  
MY COMMISSION EXPIRES AUG. 15, 1987  
Member, Pennsylvania Association of Notaries

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## ANNUAL INSPECTION OF RETIRED WTR PER LICENSE TR-2

During the period August 15 through September 6 and on October 15, 1985, the facilities of the retired Westinghouse Testing Reactor (WTR), retained under NRC License TR-2, were entered for the purpose of conducting the annual inspection and for performing any preventive maintenance required. Those personnel entering the facilities for the purpose of conducting the inspection were: M. J. Kabo, Manager, Works Engineering; D. T. Galm, Manager, Health and Safety Services; R. G. Kitzer, Jr., Manager, Industrial Hygiene and Safety; and J. T. DiNicola and J. A. Meskanick, Radiological Safety Technicians.

The findings and action taken are summarized below:

1. During the past year, entries continued to be made into the vapor container on a periodic basis to ascertain if significant water was accumulating on the floor. Actions were previously taken to reduce this accumulation including covering the canal with plastic sheeting and polyurethane boards; installing two (2) dehumidifiers; and installing a sump pump in a small hole in a low area of the floor. These actions continue to prove extremely effective because the humidity within the vapor container is being maintained at a very low level and essentially no accumulation of water has been observed on the floor during the various inspections.
2. The overall condition of the vapor container was good and no significant moisture was observed on any walls, either above or below ground level. Visual inspection of the interior surface showed little or no increased deterioration of the surface coating. Some rusting was observed on the interior bottom portion of the vapor shell skin, but this condition was unchanged from the last several years. Therefore, no action is deemed necessary relative to the structural stability of the vapor container.

The exterior surface of the vapor container was repainted in October 1982, and its overall condition remains satisfactory, with some paint having chipped off at the top.

3. No work was done under the water in the vapor container canal since the last annual report (submitted October 22, 1984) so the conditions remain unchanged. The water level in the canal was measured and found to be slightly higher than observed during the previous annual inspection. The canal low level water alarm was manually activated and responded properly; i.e., audible alarm and printout in the Security Control Center and audible and visual alarm in the Health Physics Office.

As noted in Table I of this report, the canal water was sampled and found to have a gross beta-gamma activity of  $1.40 \times 10^{-4}$   $\mu$  Ci/ml. This indicates very little change from last year's value of  $1.29 \times 10^{-4}$   $\mu$  Ci/ml and the 1983 value of  $1.92 \times 10^{-4}$   $\mu$  Ci/ml.

4. Overall housekeeping within the vapor container remains

satisfactory. All loose floor tile have been removed and no other debris was observed on the floor.

5. The personnel entry doors on the east and west sides of the vapor container were found to be locked at the time of entry, as were the doors leading into the Rabbit Pump room, the Sub-Pile room and the cover over the Primary Coolant Pipe Tunnel. These areas had to be unlocked to permit access for this inspection, but were relocked when the inspection was completed.
6. The valve on the drain line on the bottom of the reactor vessel was inspected and found to be in the OPEN position, thereby assuring venting of the vessel. The butterfly valves in the ventilation ducts in the Truck Lock area were inspected and found to be in the CLOSED position.
7. The absolute filter through which the reactor primary system breathes into the Annex Area was inspected and found to be in satisfactory condition. This filter had been replaced during the 1982 inspection.
8. As previously noted, periodic entries were made into the vapor container during the past year by Westinghouse personnel. Records are maintained by the Manager, Health and Safety Services, which indicate the date and time of entries, who made the entry and the purpose of each entry.
9. The following changes in management relative to the administration of License TR-2 were made since the submission of the 1984 annual report:
  - a) D. E. Simpson was appointed Manager, Engineering, replacing T. C. Varljen. Mr. Simpson reports to Dr. W. H. Arnold, General Manager, Advanced Energy Systems Division, and senior management person at the Waltz Mill Site having responsibility for the retired WTR facilities.
10. The inspection of the snakepit (primary coolant pipe tunnel) surrounding the vapor container indicated that approximately 7100 gallons of water, with a beta-gamma activity of  $2.2 \times 10^{-6} \mu\text{Ci/ml}$ , were in the tunnel, so the increase in water volume over the last year was 2300 gallons. This compares to the 2300 gallon increase in 1983/1984 and the 1650 gallon increase in 1982/1983.

Since the volume is still relatively small and the gross activity low, we do not plan to remove and process this water in 1985.

11. The results of the radiological survey are shown in Table I, attached. A general review of the survey data obtained since 1963 indicates that the radiation and contamination levels are low and relatively stable. Frequently, some scatter is seen in the data which is attributed to sampling techniques, sensitivity of the counting equipment used and the relatively low levels of activity present. Any slight changes in a specific set of data from year-to-year are not considered to be significant.

Survey Dates: 8-15-85 thru  
9- 6-85

TABLE 1

RADIATION AND CONTAMINATION AREAS SURVEY REPORT

Retired WTR Facility  
License TR-2

Reference: WTR-172

LOCATIONS	General Radiation Levels		B-γ Contamination Levels*		
	B-γ	mr/hr	Surface	Air	Water
			dpm/100 cm <sup>2</sup>	μCi/ml	μCi/ml
I. Reactor Building					
1. 16 ft Elevation - General Background	<1		<200	$1.1 \times 10^{-12}$	NA
2. Rabbit Pump Room - General Background	<1		<200	$1.1 \times 10^{-12}$	NA
3. Sub-ile Room - General Background	6.5		305	$0.6 \times 10^{-12}$	NA
4. Reactor Top - General Background	<1		<200	$0.6 \times 10^{-12}$	NA
5. Reactor Top - Over Closed Vessel - General Background	<1		<200	$0.2 \times 10^{-12}$ (MDA)	NA
6. Reactor Top - Around Trench - General Background	<1		<200	$0.5 \times 10^{-12}$	NA
7. Canal Wall Top	<1		<200	NA	NA
8. Canal Water	1.5		NA	NA	$1.4 \times 10^{-4}$
9. Pit-PC Tunnel 16 ft Elevation	<1		<200	$0.4 \times 10^{-12}$	NA

\* = Average Values  
NA = Not Applicable