DOCKET NO. 50-22

WESTINGHOUSE

L&R File Copy (Suppl)

Testing Reactor

P. O. Box 1075
Pittsburgh 30, Pa.

May 25, 1962

Mr. Robert Lowenstein
Division of Licensing and Regulation
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Lowenstein:

The radiation and contamination areas of the Westinghouse Testing Reactor are listed in Table I of WTR-170, "Shutdown Report". Section II-2 of WTR-170, transmitted May 8, 1962, stated that a reference survey of the WTR shutdown conditions would be supplied during May, 1962. Attached are copies of this reference survey.

Your attention is called to the facts that the values as listed for the areas and components are peak values and thus are conservative in representing the conditions at WTR. As indicated in Section II of WTR-170 shutdown actions will be taken during 1962 which will reduce contamination and secure radiation areas. Additional surveys will be made during 1962 the results of which in conjunction with the attached data will be used to determine future survey requirements.

Very truly yours,

J. M. Yadon, Manager
Nuclear Power Service

RWM/lgs

RECEIVED
JUN 4 - 1962
U.S.A.E.C.
Division of Licensing and Regulation

A/63

5235

TABLE I

WTR - Radiation and Contamination Areas

May 25, 1962

Locations	Radiation Levels*	Contamination Levels *			
	β-γ/γ mr/hr	Surface β-γ c/m/100cm^2	Airborne β-γ uc/cc	H_2O conc β-γ uc/cc	Solid conc β-γ uc/g
	**	**	**	**	**
I. Reactor Complex Fenced Areas - external to buildings					
*** 1. Waste storage area North of Cooling Tower	1500/ 1500	BKGD	NA	NA	NA
2. Pad at rear of Process Building	.6/.6	60	NA	NA	NA
3. Other external areas (head tank, fence)	1/1	BKGD	BKGD	BKGD	BKGD
II. Retention Basin Area					
*** 1. Waste storage pad	2500/ 2500	150	NA	NA	NA
2. Pool Areas a, b, c, d.	4/3	BKGD	NA	$2x10^{-5}$	$1x10^{-1}$
3. Retention Basin	70/70	BKGD	BKGD	$9x10^{-6}$	NA
4. Evaporator Area (Inside building)	20/20	500	BKGD	$4x10^{-3}$	NA
5. Tank Area	20/20	BKGD	NA	NA	NA
III. Process Building					
1. Standby Pump Room General Background	1/1	2000	BKGD	NA	NA
2. Standby Pump Contact	35/35	NA	NA	NA	NA
3. Pump Room No. 1	1/1	4000	BKGD	NA	NA
4. Pump Room No. 1 Contact with pump	8/8	NA	NA	NA	NA
5. Pump Room No. 2 General Background	1/1	8000	BKGD	NA	NA
6. Pump Room No. 2 Contact with pump	6/6	NA	NA	NA	NA
7. Pump Room No. 3 General Background	1/1	3000	BKGD	NA	NA
8. Pump Room No. 3 Contact with pump	35/35	NA	NA	NA	NA
9. Head Tank Downcomer Contact	4/4	NA	NA	NA	NA

*** Peak reading on contact with drums.

TABLE I

WTR - Radiation and Contamination Areas May 25, 1962

Locations	Radiation Levels *	Contamination Levels *			
	β-γ/γ mr/hr	Surface β-γ c/m/100cm^2	Airborne β-γ uc/cc	H_2O conc β-γ uc/cc	Solid conc β-γ uc/g
	**	**	**	**	**
III. Process Building (Continued)					
10. Heat Exchanger Room At entrance	1/1	NA	NA	NA	NA
11. Heat Exchanger Room General Background	2/2	100	BKGD	NA	NA
12. Heat Exchanger Room Under Exchangers	1500/ 1500	NA	NA	NA	NA
13. Surge Tank Room General background top landing	1/1	NA	BKGD	NA	NA
14. Surge Tank Room around tank	360/360	60,000	NA	NA	NA
15. Ion Exchanger Cubicle entrance	3/3	NA	NA	NA	NA
16. Ion Exchanger Cubicle	100/100	5000	BKGD	NA	NA
17. Ion Exchanger, contact	1100/ 1100	NA	NA	NA	NA
18. Waste Disposal Basement General background	100/100	2000	BKGD	NA	NA
19. Waste Disposal Basement Tank 325-1 contact with bottom	1300/ 1300	NA	NA	NA	NA
20. Waste Disposal Basement Tank 325-2 contact with bottom	2100/ 2100	NA	NA	NA	NA
21. Waste Disposal Basement Tank 322-1 contact with bottom	1900/ 1900	NA	NA	NA	NA
22. Waste Disposal Basement Tank 322-2 contact with bottom	4500/ 4500	NA	NA	NA	NA
23. Pit PC Tunnel at 16' level (4' water at 0' level)	11/11	3500	BKGD	1.4×10^{-5}	NA
24. Waste Disposal Room	2/2	80	BKGD	NA	NA
25. Fan Room Filter Boxes	2/2	NA	NA	NA	NA
26. Fan Room Head Tank Monitor Cubicle	0.1/0.1	NA	NA	NA	NA

TABLE I

WTR - Radiation and Contamination Areas

May 25, 1962

Locations	Radiation Levels*	Contamination Levels *			
	β-γ/γ mr/hr	Surface β-γ c/m/100cm^2	Airborne β-γ uc/cc	H_2O conc β-γ uc/cc	Solid conc β-γ uc/g
	**	**	**	**	**
B. Reactor Building					
1. 16' elevation Reactor Building	0.3/0.3	200	BKGD	NA	NA
2. Subpile room Background	50/50	50,000	BKGD	NA	NA
3. APD Loop Cubicle over open top	2/2	NA	BKGD	NA	NA
4. APD Loop Cubicle	4/4	2000	BKGD	NA	NA
5. Loop No. 1 North Side Contact	2/2	100	NA	NA	NA
6. Loop No. 1 South Side Contact	5/5	100	NA	NA	NA
7. Reactor Top, In Trench	2/2	1,500	BKGD	NA	NA
8. Reactor Top, over open vessel (Vessel with water) γ only	5	NA	BKGD	NA	NA
9. Reactor Top, over open vessel (Vessel with water) β-γ	50	NA	BKGD	NA	NA
10. Pressure Vessel, Inside Wall	250/50	100,000	NA	NA	NA
11. Reactor Top, General Background	1/1	600	BKGD	NA	NA
12. Canal Wall Top	.5/.5	100,000	NA	NA	NA
13. Rabbit Pump Room	25/25	3,500	BKGD	NA	NA
14. Canal Water	20/5	NA	NA	$5x10^{-4}$	NA
C. Reactor Building Annex					
1. 16' elevation in annex	10/10	300	BKGD	$5x10^{-7}$	NA
2. Canal Wall Top	4/4	30,000	NA	NA	NA
3. Canal Water	10/6	NA	NA	$5x10^{-4}$	NA
D. Decontamination Building					
1. General Area	0.1/0.1	100	BKGD	NA	NA
2. Pit Wall Top	0.1/0.1	50	NA	$7x10^{-7}$	NA

* Peak Values for Areas Tabulated. ** Survey values for references will be supplied with the May Report.

LEGEND: NA -- Not Applicable