

NOTES TO US NRC REGULATORY GUIDE 1.16 REPORT

1. The total man-rem was compiled by allocating the monthly exposure of each individual to the six work and job functions according to fixed percentages.

The percentages were established on a monthly basis for each work class from plant radiation work permit records.

2. The number of personnel was compiled by counting each individual as a decimal fraction proportioned to his exposure under each corresponding work and job function.
3. The totals for number of personnel are not rounded numbers because of truncation of the decimal fractions by the computer before summation.

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		NUMBER OF PERSONNEL (> 100 each)				TOTAL MAN-RE			
		STATION EMPLOYEES	UTILITY EMPLOYEES	WORKERS AND OTHERS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT WORKERS	CONTRACT WORKERS AND OTHERS	
WORK & JOB FUNCTION									
REACTOR OPERATIONS & SURVEILLANCE									
MAINTENANCE PERSONNEL	0.144		0.000	0.774	0.234	0.000	0.097		
OPERATING PERSONNEL	28.739		1.070	36.000	48.546	1.548	8.070		
HEALTH PHYSICS PERSONNEL	4.641		1.343	0.309	7.434	1.662	0.184		
SUPERVISORY PERSONNEL	0.926		0.000	0.000	0.142	0.000	0.000		
ENGINEERING PERSONNEL	5.174		1.474	0.000	5.732	0.605	0.000		
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	20.424		1.910	31.614	41.204	3.528	48.820		
OPERATING PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
HEALTH PHYSICS PERSONNEL	4.766		0.682	1.173	7.142	0.896	0.637		
SUPERVISORY PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
ENGINEERING PERSONNEL	2.232		0.963	0.000	2.618	0.058	0.000		
INSERVICE INSPECTION									
MAINTENANCE PERSONNEL	2.216		0.177	10.922	4.887	0.243	15.470		
OPERATING PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
HEALTH PHYSICS PERSONNEL	0.456		0.189	0.000	0.621	0.248	0.000		
SUPERVISORY PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
ENGINEERING PERSONNEL	4.062		0.060	74.176	8.546	0.055	66.347		
SPECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	52.553		31.844	674.263	102.498	36.802	934.160		
OPERATING PERSONNEL	5.035		0.251	0.000	8.659	0.365	0.000		
HEALTH PHYSICS PERSONNEL	17.820		5.844	37.656	25.875	7.324	27.715		
SUPERVISORY PERSONNEL	2.072		3.000	2.000	0.795	1.498	1.842		
ENGINEERING PERSONNEL	14.468		30.571	133.144	22.866	23.958	122.040		
WASTE PROCESSING									
MAINTENANCE PERSONNEL	7.340		0.515	12.213	15.449	1.306	18.770		
OPERATING PERSONNEL	12.475		0.433	0.000	20.608	0.526	0.000		
HEALTH PHYSICS PERSONNEL	1.608		0.420	0.159	2.099	0.520	0.093		
SUPERVISORY PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
ENGINEERING PERSONNEL	1.455		0.047	0.000	1.535	0.043	0.000		
OFF-RELING									
MAINTENANCE PERSONNEL	7.772		7.389	40.2747	16.862	8.573	56.271		
OPERATING PERSONNEL	4.605		0.240	0.000	7.185	0.344	0.000		
HEALTH PHYSICS PERSONNEL	1.111		0.459	13.545	1.468	0.546	10.396		
SUPERVISORY PERSONNEL	0.000		0.000	0.000	0.000	0.000	0.000		
ENGINEERING PERSONNEL	1.710		2.623	1.475	2.216	2.340	1.391		
TOTAL									
MAINTENANCE PERSONNEL	90.680		41.935	770.533	181.138	50.452	1073.588		
OPERATING PERSONNEL	50.654		1.944	36.000	45.034	2.543	2.070		
HEALTH PHYSICS PERSONNEL	30.602		4.977	52.938	45.830	11.226	39.025		
SUPERVISORY PERSONNEL	2.996		3.000	2.000	0.837	1.488	1.842		
ENGINEERING PERSONNEL	33.906		34.034	208.795	43.613	27.059	189.762		
GRAND TOTAL									
	209.349		90.844	1070.266	386.435	93.108	1312.287		

Statistical Summary Report  
Robinson Steam Electric Plant - 1980  
January through December  
License No. DPR-23

Whole Body  
Exposure Range (REM)

No. of Individuals  
In Range

None Measurable	751
Less than 0.1	633
0.1 to 0.25	218
0.25 to 0.50	201
0.50 to 0.75	135
0.75 to 1.00	142
1 to 2	373
2 to 3	181
3 to 4	81
4 to 5	45
5 to 6	0
6 to 7	0
7 to 8	0
8 to 9	0
9 to 10	0
10 to 11	0
11 to 12	0
12 and over	0

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Total

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2,760

1980 ANNUAL OPERATING REPORTCHANGES, TESTS AND EXPERIMENTS PURSUANT TO 10CFR50.59

- 1.0 As permitted by 10CFR50.59 (a) (1), changes were made at the Robinson Plant that changed the facility as described in the Safety Analysis Report but did not constitute an unreviewed safety question. They did not require a change to the Technical Specifications, or a change to the Technical Specifications was obtained prior to initiation. The changes did not adversely affect the safety of the plant or the health and safety of the general public. These changes are as follows:
  - 1.1 A facility change made in 1980 was to provide electric fire door supervision at a continuously manned location for areas protected by automatic total flooding, gas suppression systems.
  - 1.2 A facility change completed in 1980 provided for the replacement of the existing fire pump propane engine and relocation of the existing propane tank at the Unit No. 2 intake structure. The installation of this modification removed the threat of propane explosion damage to safety-related pumps, piping, wiring and control equipment.
  - 1.3 A facility change completed in 1980 provided the capability to isolate Unit No. 2 hydrants from the fire main without interrupting the fire water supply to any area containing safety-related equipment.
  - 1.4 A facility change was completed in 1980 which provides for the installation of three separate and unique protective barriers which are designed to protect safe-shutdown-related equipment or systems from the potential effects of fire (2 barriers) or the inadvertent discharge of fire suppression water (1 barrier). Installation of these barriers was required in order to ensure the availability of plant shutdown capability, and thereby achieve compliance with 10CFR50, Appendix R, Part III - G, "Protection of Safe Shutdown Capability."
  - 1.5 A facility change was completed in 1980 which provides for pre-action sprinkler systems for the containment cable penetration area and the reactor coolant pump bays and for hose stations throughout the containment area.
  - 1.6 A facility change was completed in 1980 which allows all non-essential containment penetrations to automatically isolate on a Phase "A" containment isolation signal ("T" signal) and to remain isolated following the reset of that signal. To comply with this requirement, the manual diaphragm valve in the N<sub>2</sub> supply line to PRT was replaced with an air operated diaphragm valve which will shut on a "T" signal.

- 1.7 A facility change was completed in 1980 which allows the condenser hotwells to be drained and recirculated. Drain-down time is projected to be reduced to 12 hours. Condensate will be recirculated from "A" hotwell to "B", drained to the circulating water outlet, or, if contaminated, drained to the waste disposal system. In the past the condenser was drained by gravity through hoses to the appropriate location dated above.
- 1.8 No other facility changes require reporting pursuant to 10CFR50.59.
- 2.0 No 1980 tests, experiments, or procedure changes require reporting pursuant to 10CFR50.59.