



INFORMATION SYSTEM ON OCCUPATIONAL EXPOSURE

General Distribution

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ISOE INFORMATION SHEET

**North American Technical Center
Information System on Occupational Exposure**

**United States Boiling Water Reactor (BWR)
2001 Occupational Dose Benchmarking Chart**

NATC ISOE Information Sheet No. 02-5

NATC ISOE Information Sheet No. 02-5 presents the U.S. Boiling Water Reactor (BWR) occupational exposure results for FY 2001. Exposure categories per unit include refueling outage duration and dose, normal operations dose, and total dose.

For comparison, the 2001 worldwide collective dose per reactor unit is provided in the below table:

Country/Region	Collective dose per Reactor (person-Sv)
USA	1.38154
Europe	later
Japan	later

The FY 2001 U.S. BWR charts prepared by NATC include the following:

Figure 1a: 2001 BWR Outage Duration

Figure 1b: 2001 BWR Outage Dose

Figure 1c: 2001 BWR Normal Dose

Figure 1d: 2001 BWR Total Dose

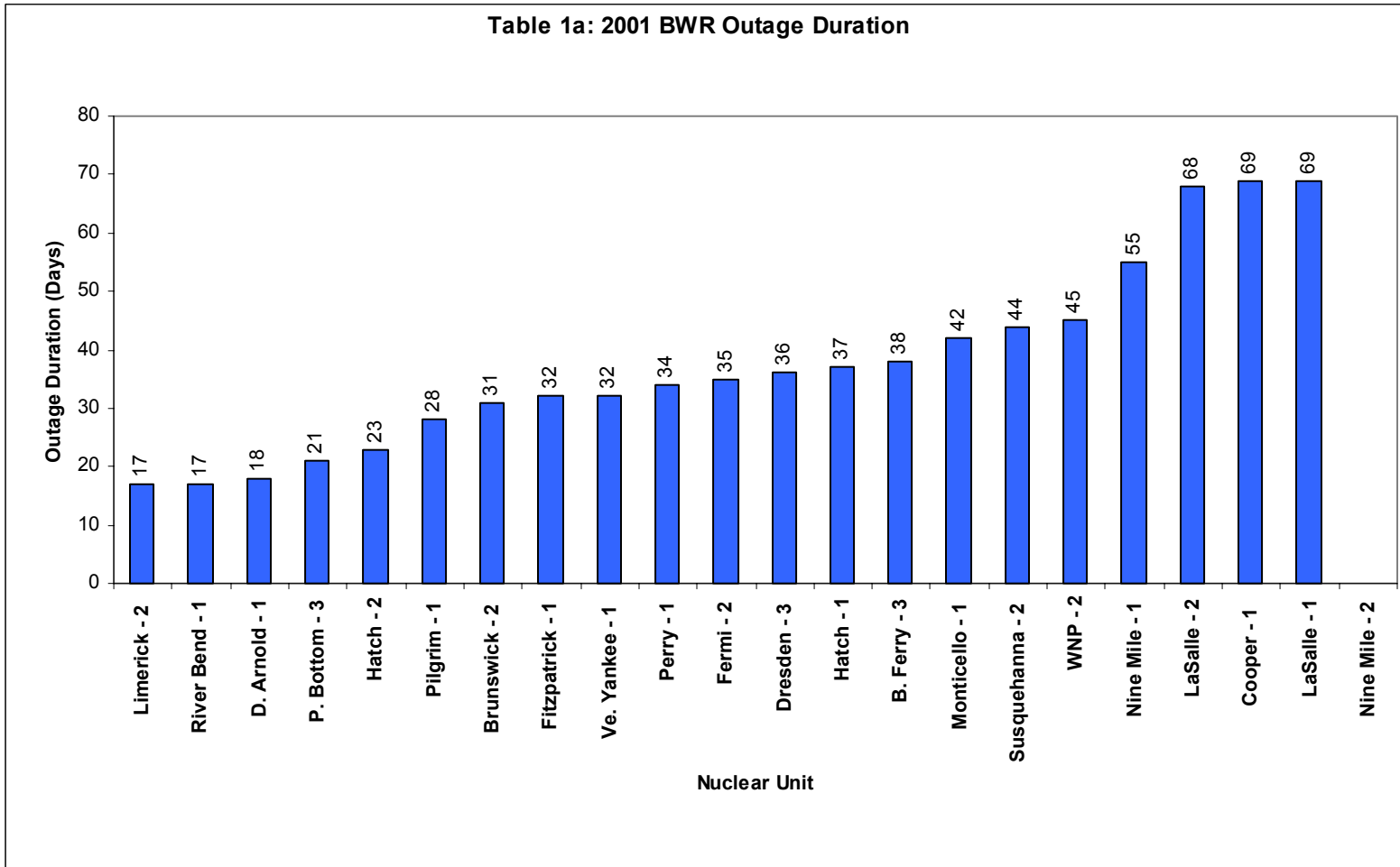
Figure 2a-d: 2001 BWR Outage Duration Quartiles

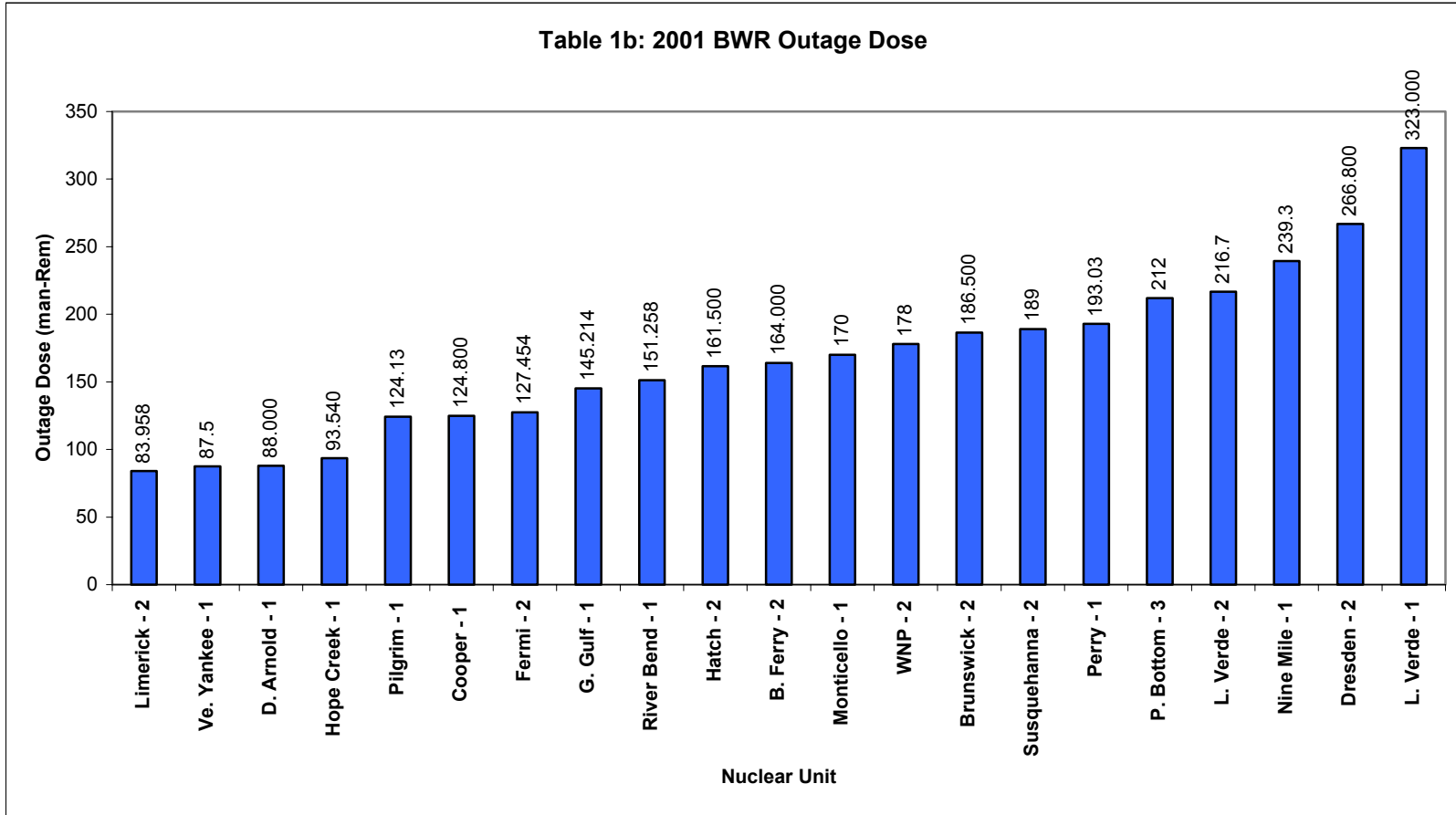
Figure 3a-d: 2001 BWR Outage Dose Quartiles

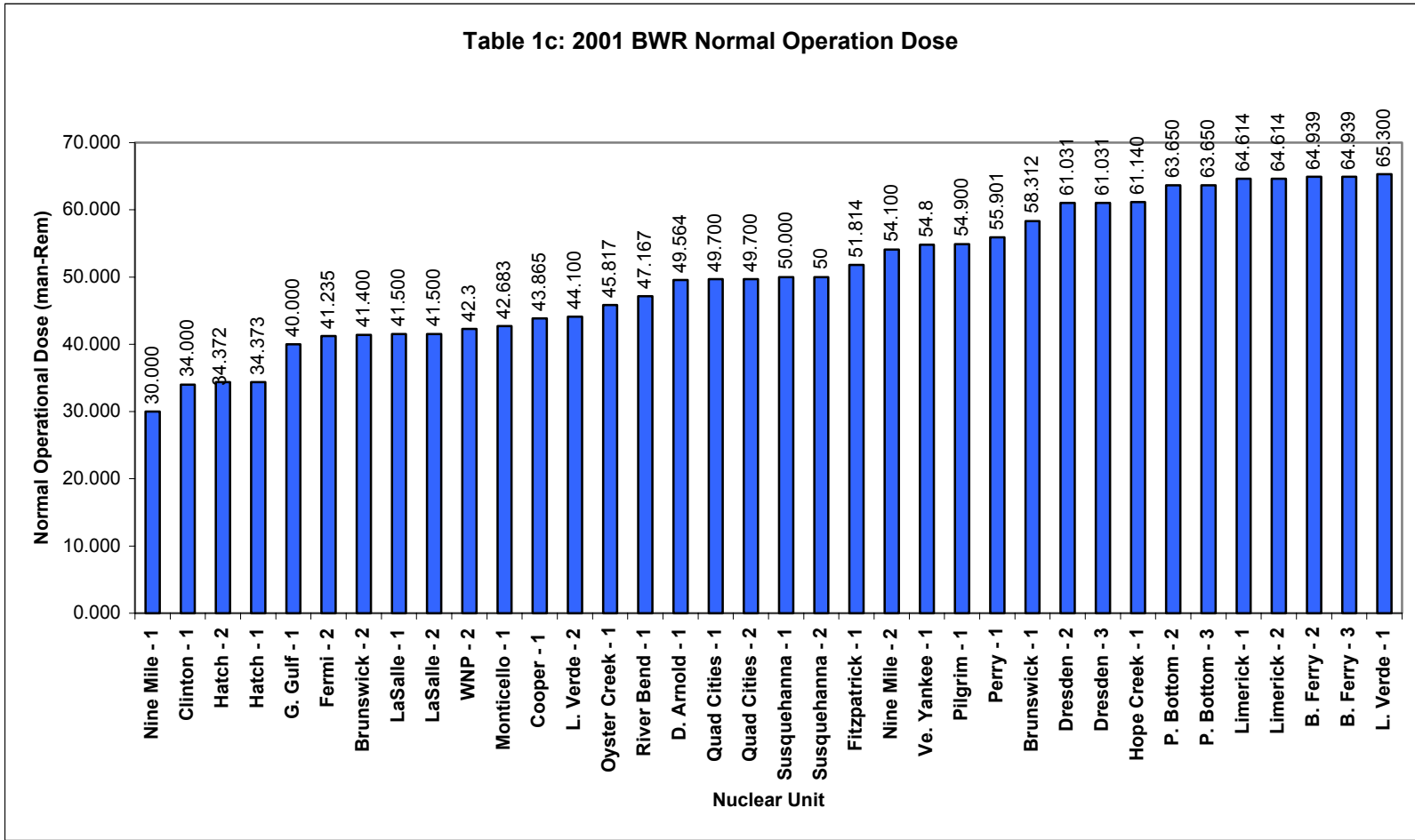
Figure 4a-d: 2001 BWR Normal Dose Quartiles

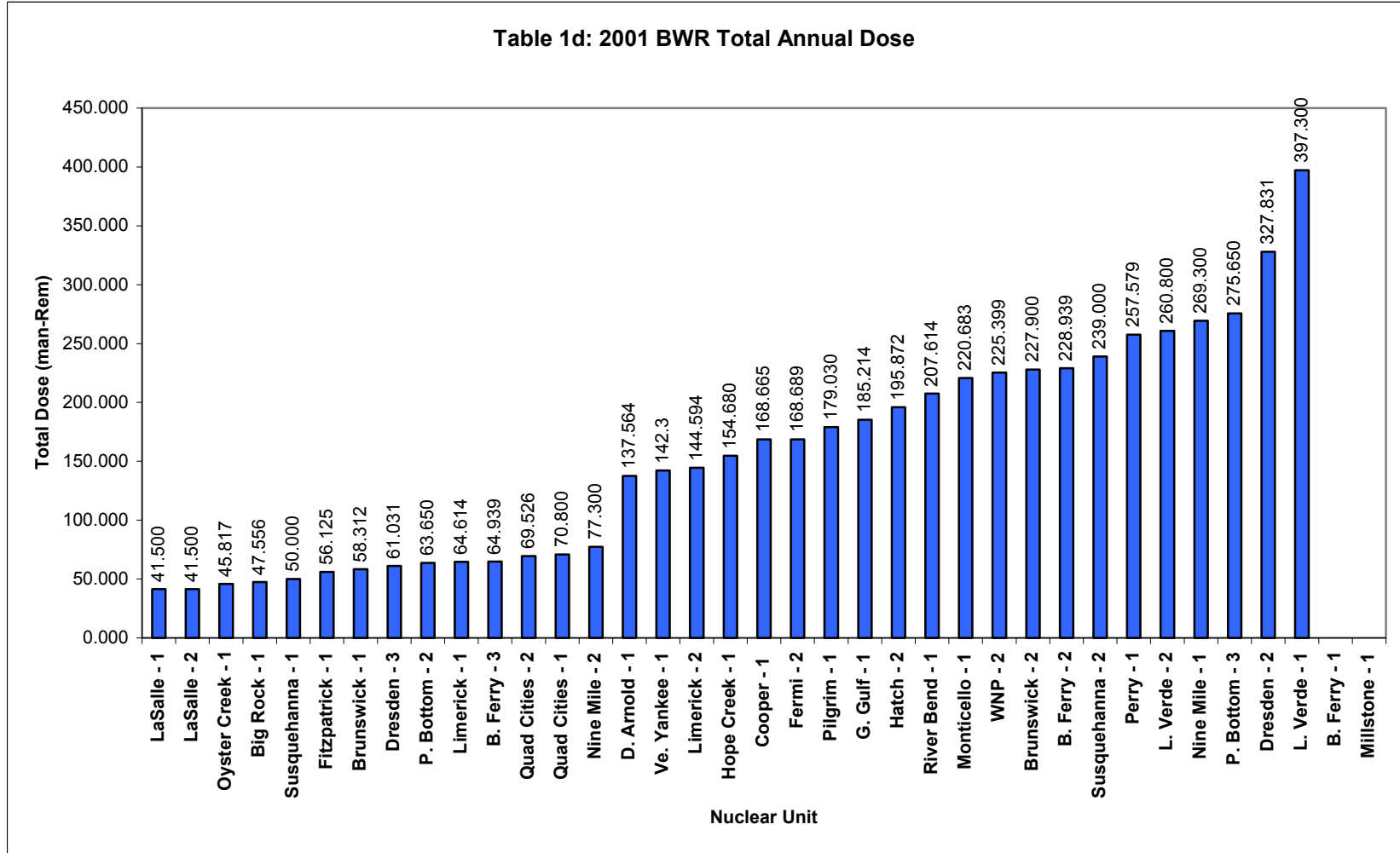
Figure 5a-d: 2001 BWR Total Dose Quartiles

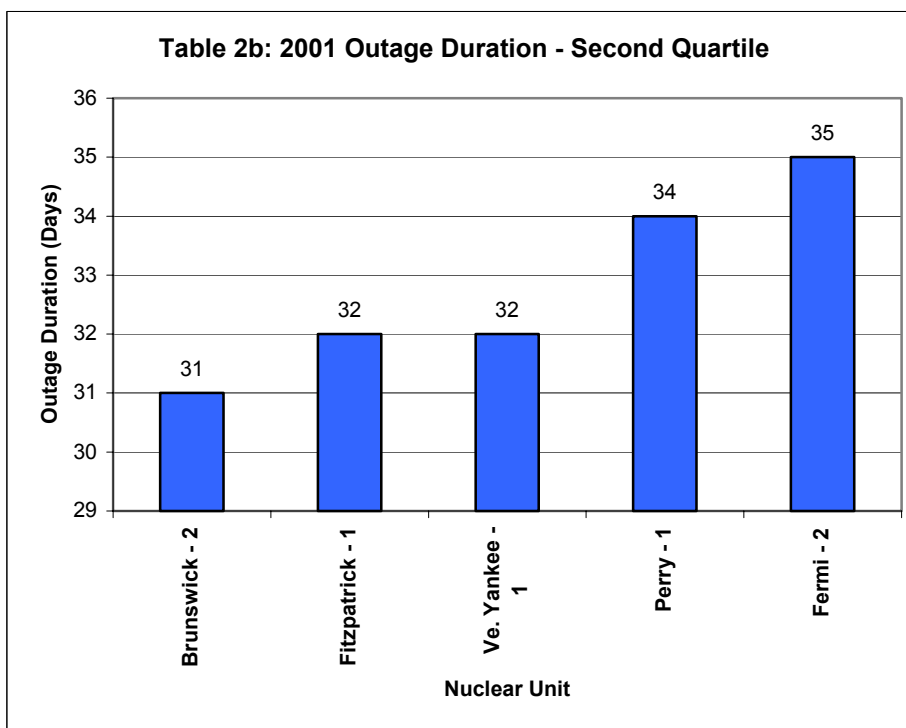
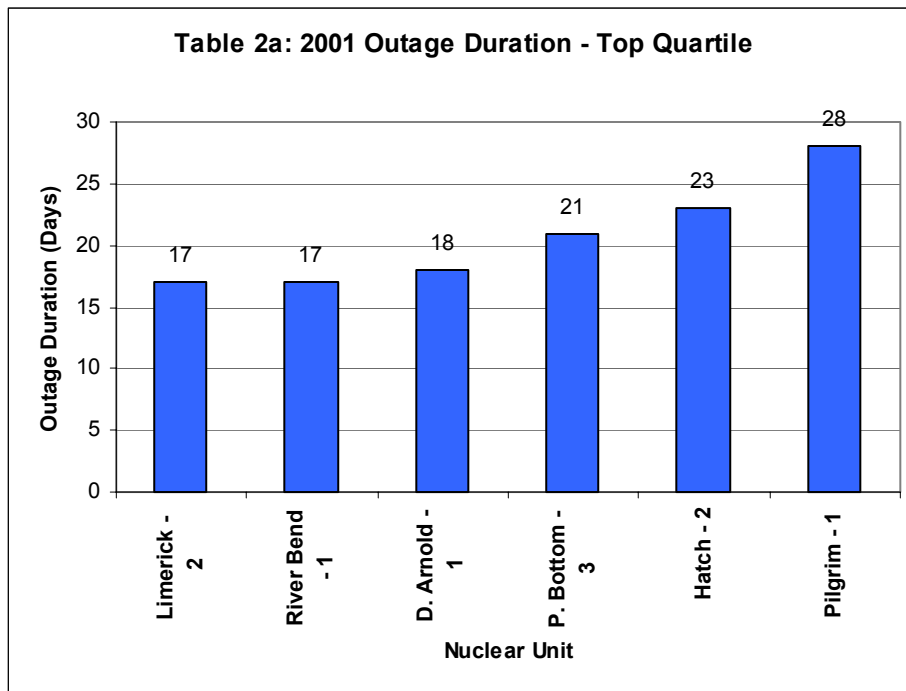
Table 6: 2001 BWR Occupational Dose Data

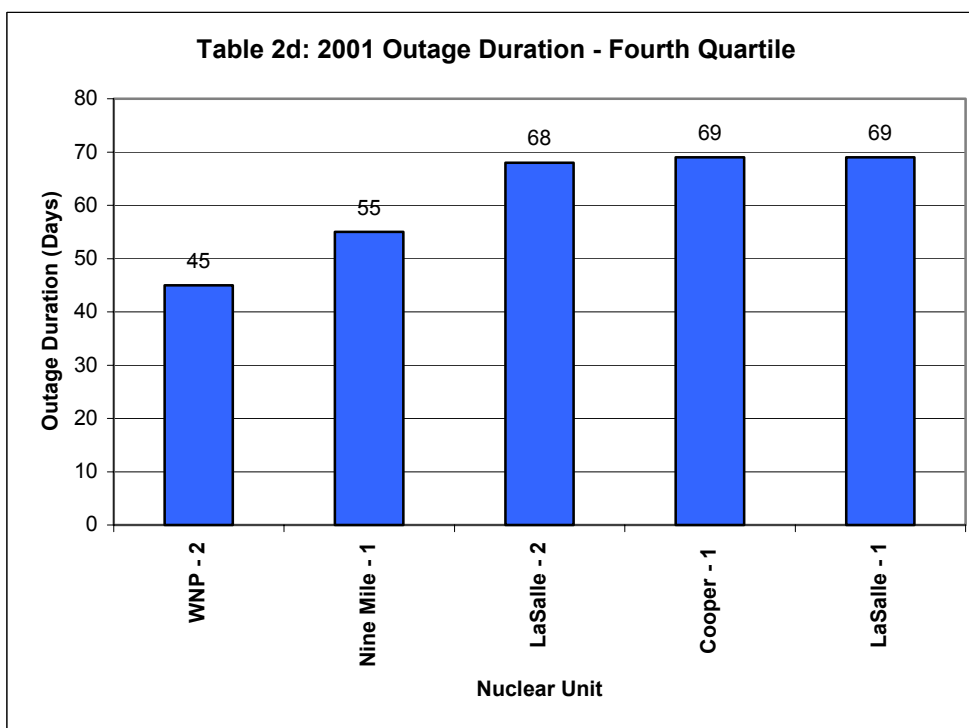
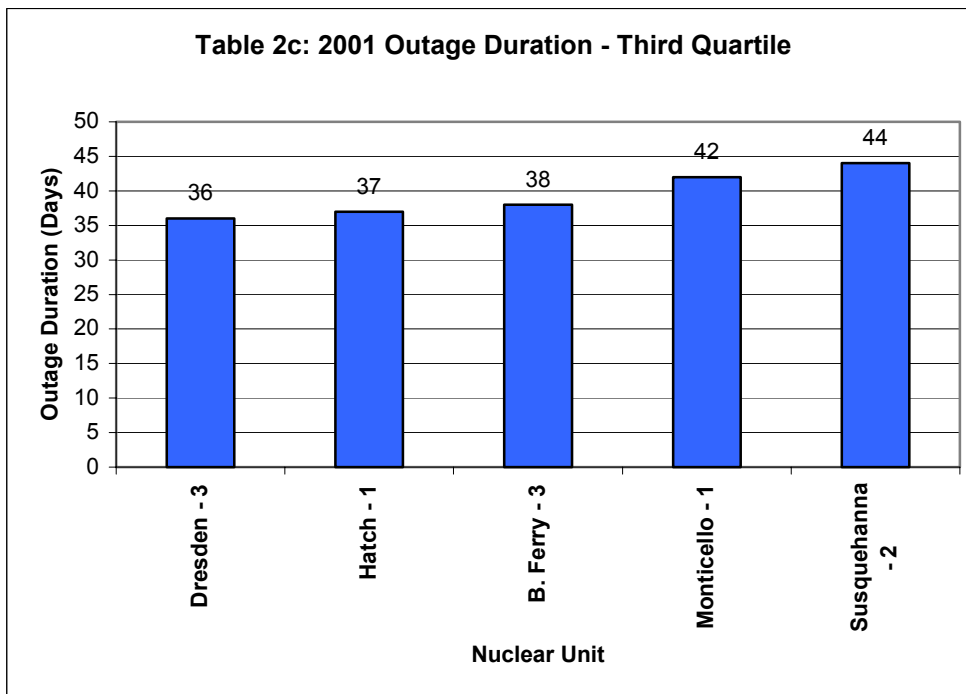


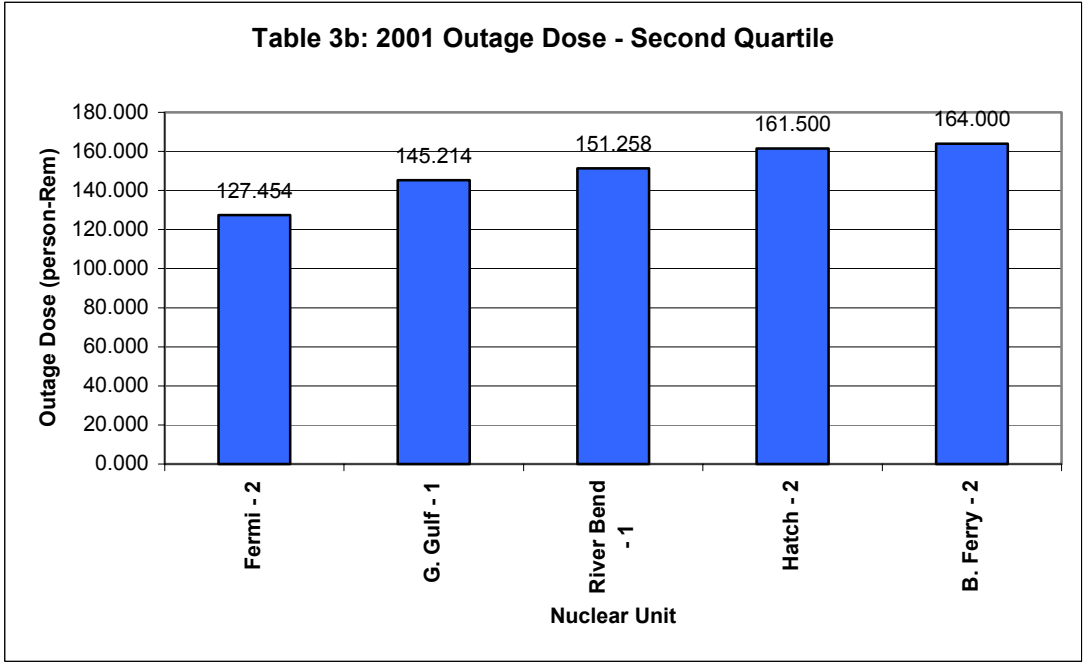
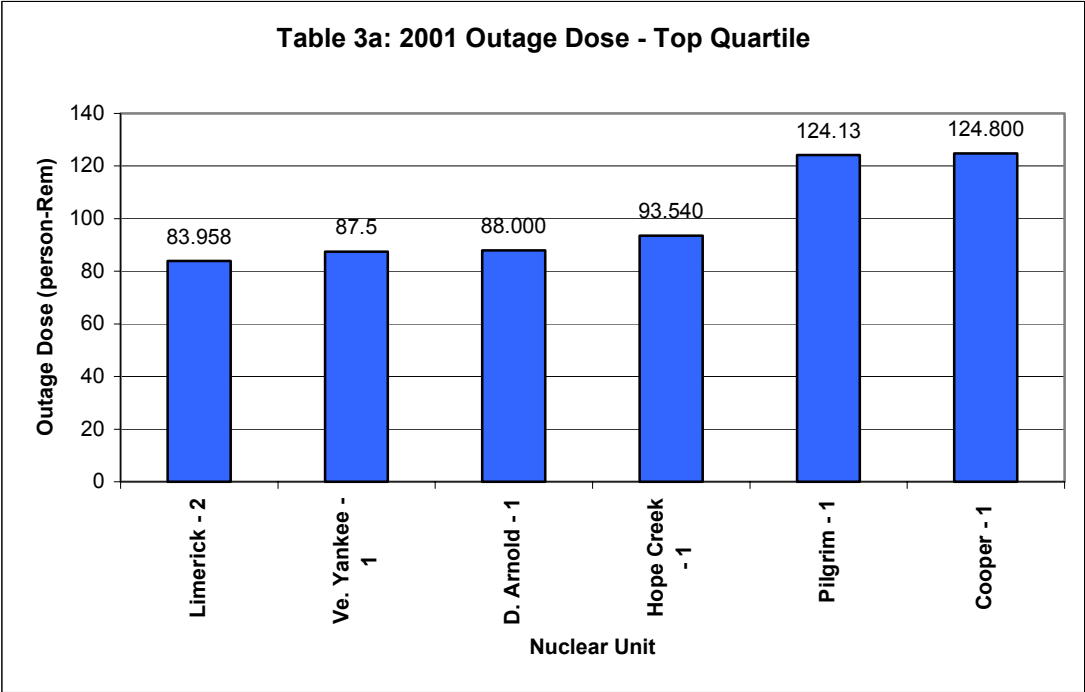


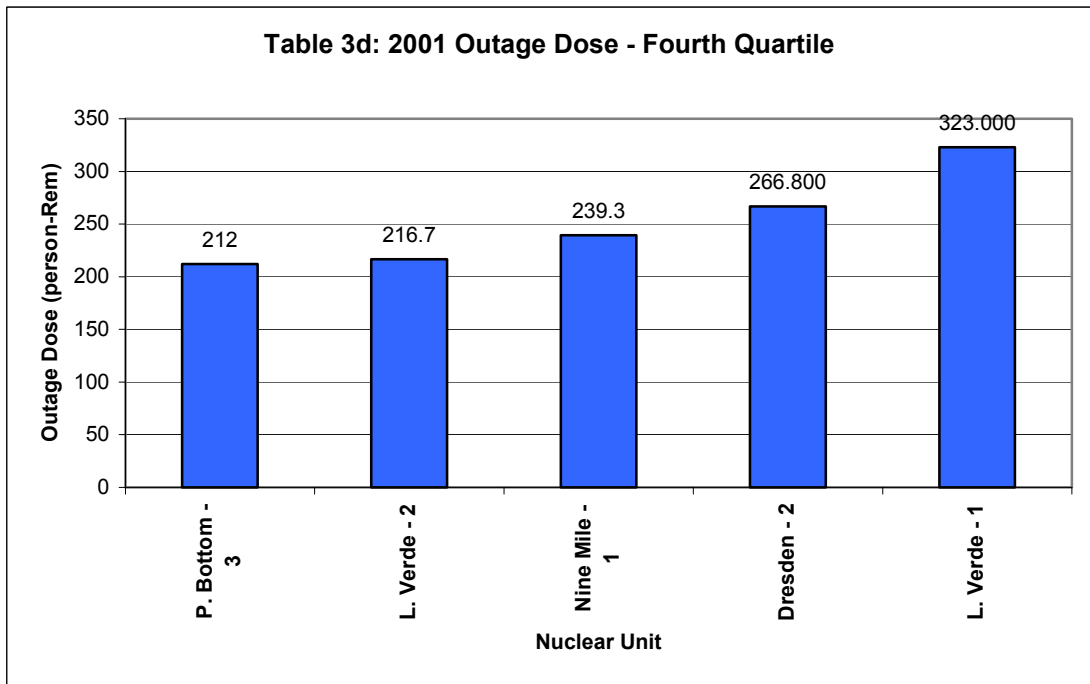
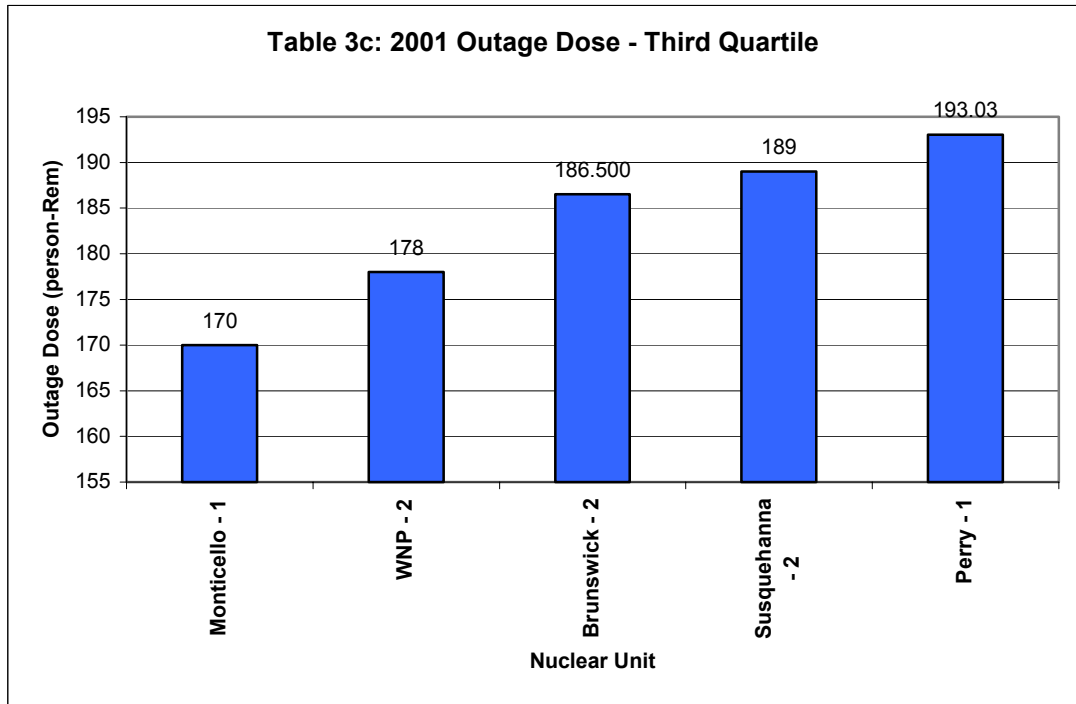


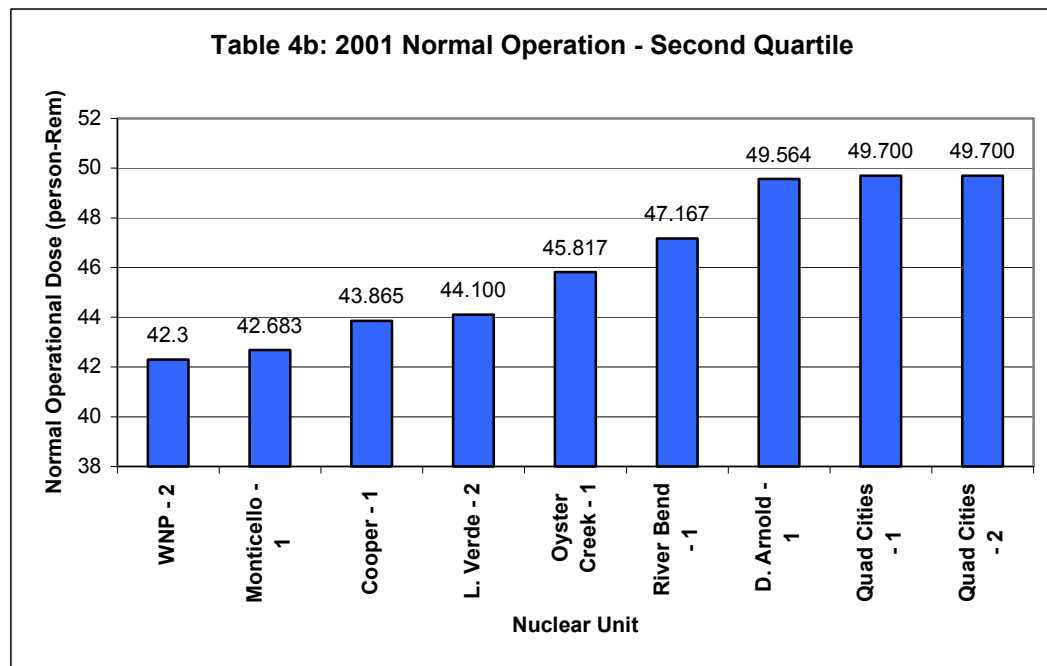
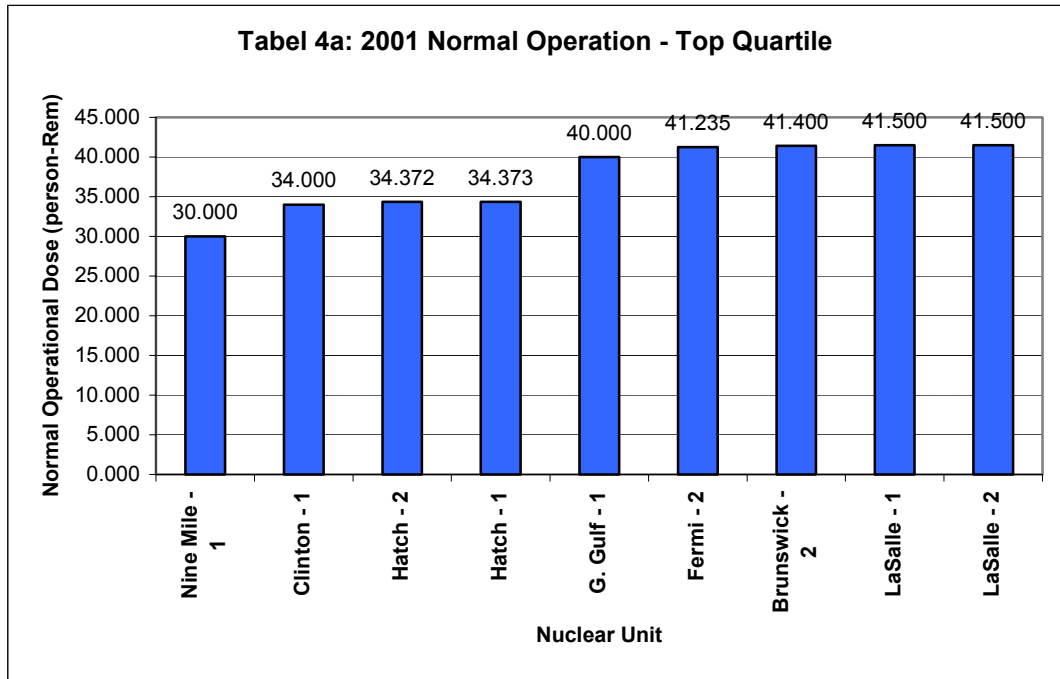


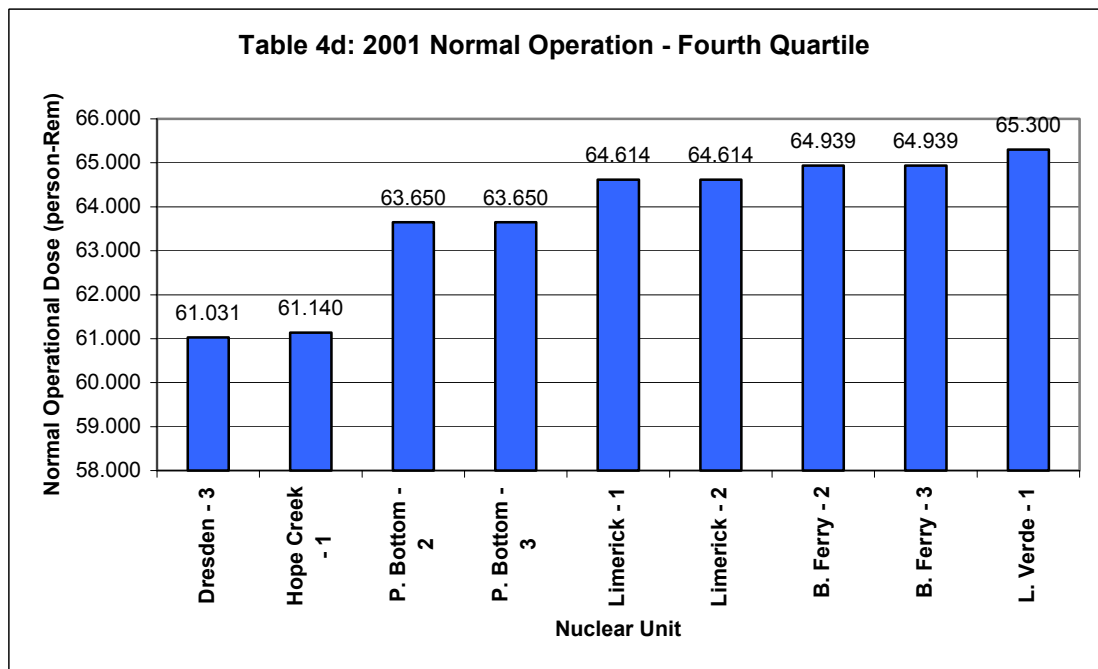
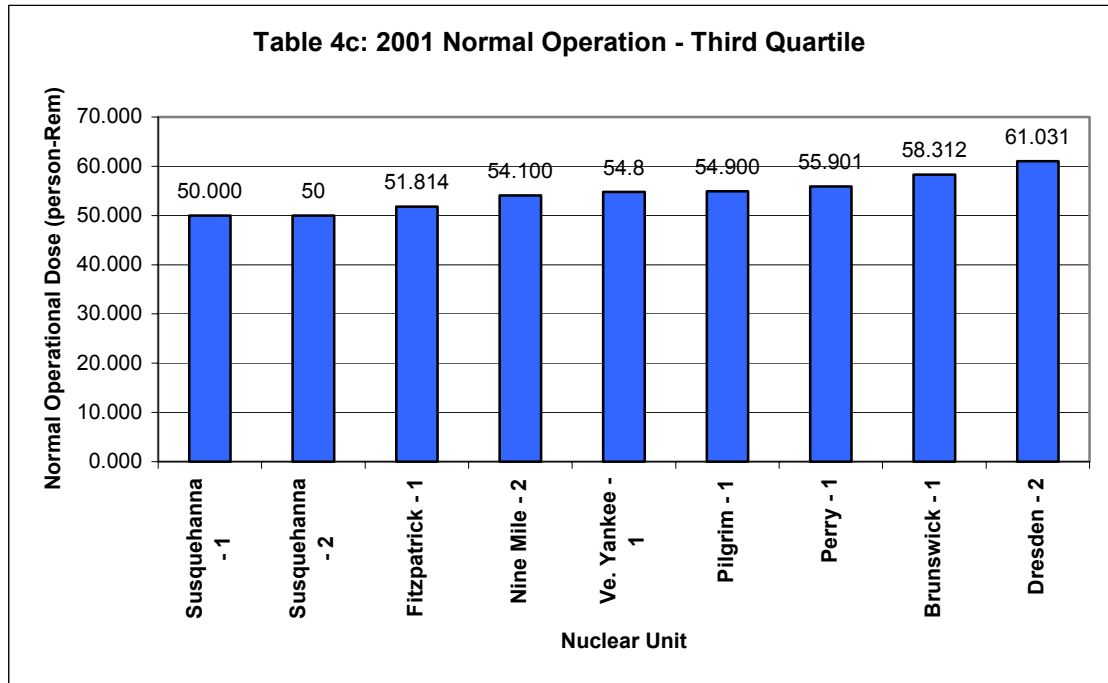


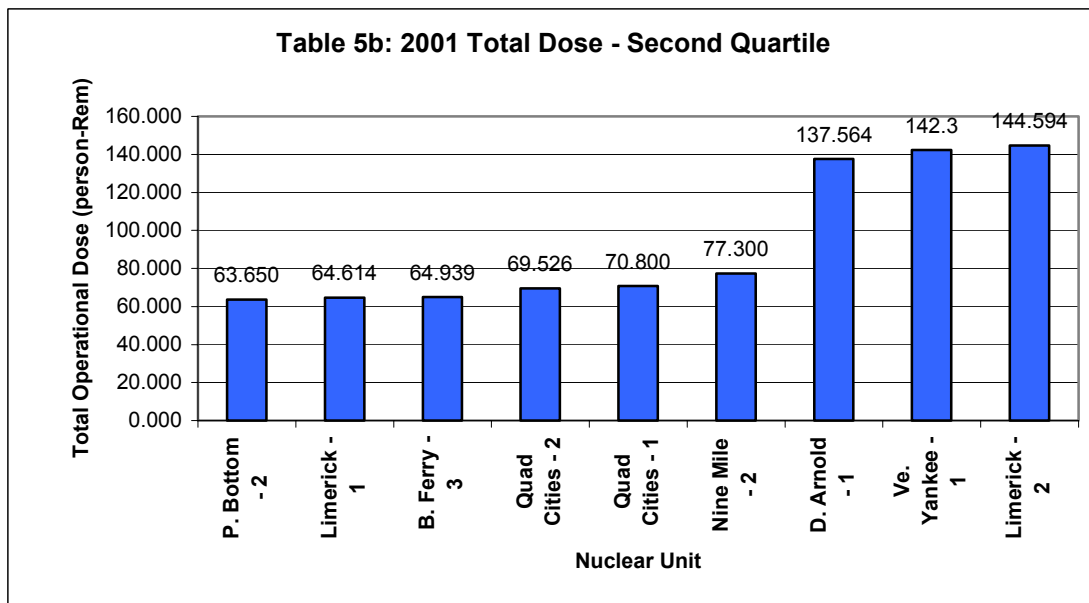
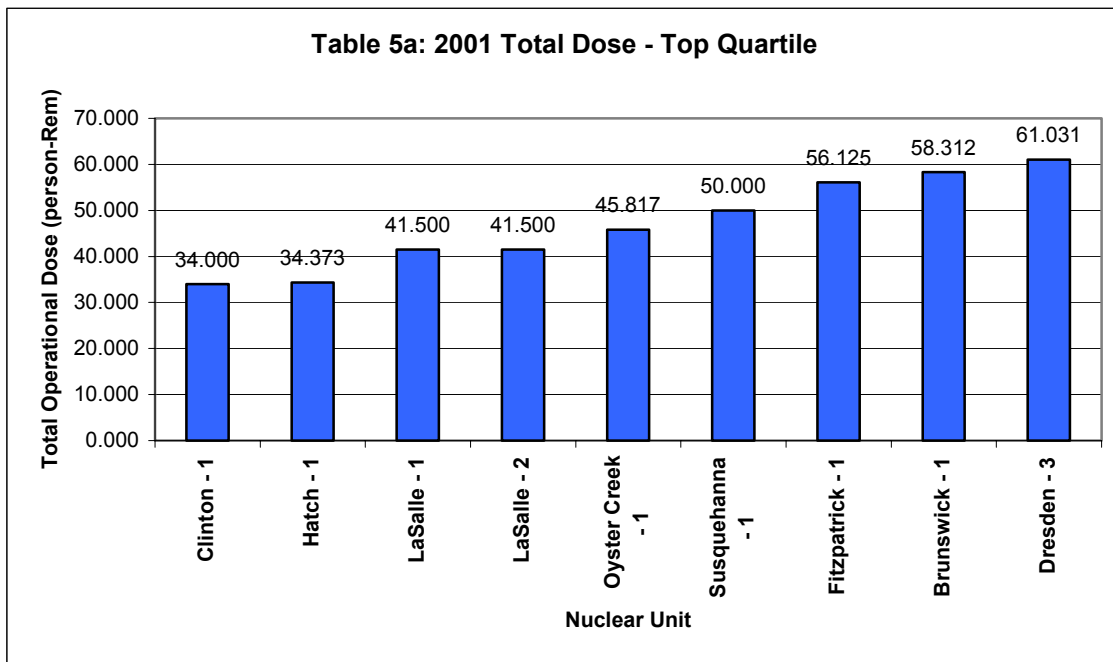












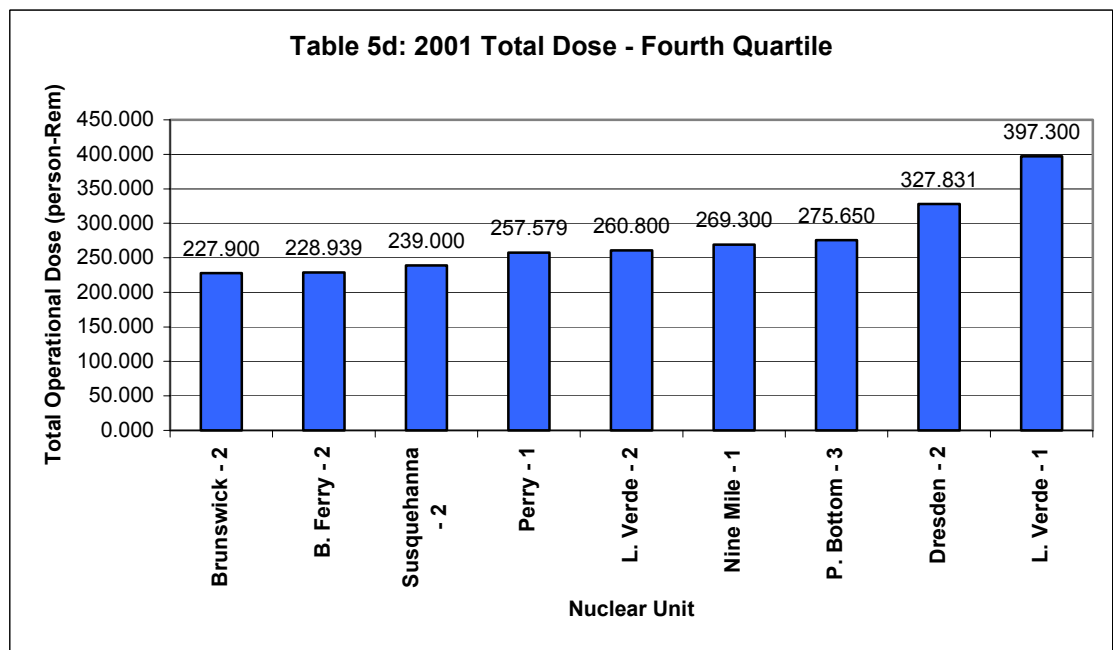
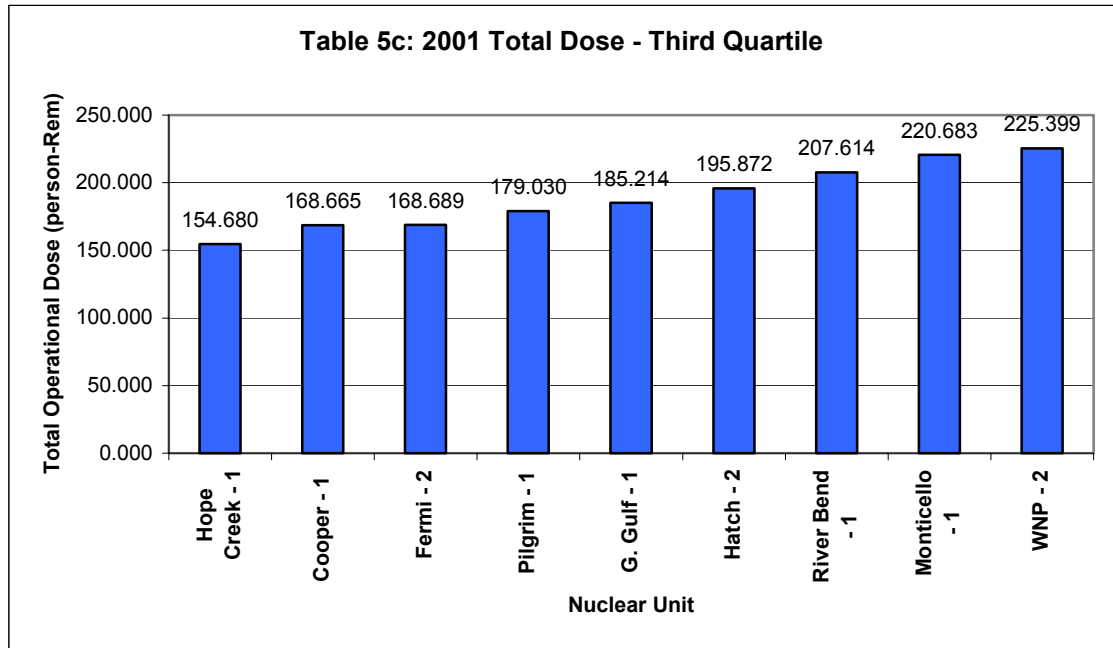


Table 6: 2001 BWR Occupational Dose Data

Nuclear Unit	Outage Start Date	Outage End Date	Outage Duration	Outage Dose	Normal Operation	Other Shutdowns	Total Dose	Goals	Comments	TLD Values	Diff. ED/TLD
Big Rock - 1	N/A	N/A				47.556	47.556			47.556	
B. Ferry - 1	N/A	N/A					0.000				
B. Ferry - 2	3/17/2001	4/24/2001	38	164.000	64.939		228.939				
B. Ferry - 3	N/A	N/A			64.939		64.939			293.879	
Brunswick - 1					58.312		58.312				
Brunswick - 2	2/25/2001	3/24/2001	31	186.500	41.400		227.900			302.812	
Clinton - 1	N/A	N/A			34.000		34.000			34.000	
Cooper - 1	11/4/2001	12/18/2002	69	124.800	43.865		168.665			168.665	
Dresden - 2	10/17/2001	11/4/2001	18	266.800	61.031		327.831			400.702	
Dresden - 3	N/A	N/A			61.031		61.031				D-1 70mr
D. Arnold - 1	4/13/2001	5/19/2001	36	88.000	49.564		137.564			137.564	
Fermi - 2	10/26/2001	11/30/2001	35	127.454	41.235		168.689			168.689	
G. Gulf - 1	4/13/2001	5/15/2001	32	145.214	40.000		185.214			185.214	
Hatch - 1	N/A	N/A			34.373		34.373			230.245	
Hatch - 2	9/8/2001	10/22/2001	37	161.500	34.372		195.872				
Hope Creek - 1	10/10/2001	11/2/2001	23	93.540	61.140		154.680	153.500		154.680	
Fitzpatrick - 1	N/A	N/A			51.814	5.711	56.125			56.125	
LaSalle - 1	N/A	N/A			41.500		41.500			82.721	
LaSalle - 2	N/A	N/A			41.500		41.500				
L. Verde - 1	11/23/2001	12/14/2001	69	323.000	65.300	9.000	397.300				
L. Verde - 2	N/A	N/A	68	216.700	44.100		260.800				
Limerick - 1	N/A	N/A			64.614		64.614			210.336	
Limerick - 2	4/4/2001	4/21/2001	17	83.958	64.614		144.594				
Millstone - 1	N/A						0.000				cold shut
Monticello - 1	11/3/2001	12/15/2001	42	170.000	42.683	8.000	220.683			220.683	
Nine Mile - 1	3/18/2001		55	239.300	30.000		269.300			343.197	
Nine Mile - 2	N/A	N/A	0	0.000	54.100	23.200	77.300				
Oyster Creek - 1	N/A	N/A			45.817		45.817			45.817	
P. Bottom - 2	N/A	N/A			63.650		63.650				
P. Bottom - 3	9/14/2001	10/5/2001	21	212.000	63.650		275.650			344.283	
Perry - 1	2/15/2001	3/14/2001	34	193.030	55.901	8.639	257.579			258.268	
Pilgrim - 1	4/14/2001	5/16/2001	28	124.130	54.900		179.030			179.585	
Quad Cities - 1	N/A	N/A			49.700	21.100	70.800				
Quad Cities - 2	2/2/2002				49.700	19.826	69.526	113.000		143.849	
River Bend - 1	9/24/2001	10/11/2001	17	151.258	47.167	9.189	207.614		200	207.614	
Susquehanna - 1	N/A	N/A			50.000		50.000				
Susquehanna - 2	3/10/2001	4/21/2001	44	189.000	50.000		239.000	300.000		289.000	
Ve. Yankee - 1	4/28/2001	5/30/2001	32	87.500	54.800		142.300			143.010	
WNP - 2	5/1/2001	6/11/2001	45	178.000	42.300		225.399			225.399	