



INFORMATION SYSTEM ON OCCUPATIONAL EXPOSURE

General Distribution

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ISOE Information Sheet

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

**North American Boiling Water Reactor (BWR)
2010 Occupational Dose Benchmarking Charts**

NATC ISOE Information Sheet No. 10-5

NATC ISOE Information Sheet No. 10-5 presents the North American Boiling Water Reactor (BWR) occupational exposure results for FY 2010. Exposure categories per unit include refueling outage duration and dose, normal operations dose, and total dose.

The 2010 BWR charts are arranged in the following format:

Table 1a-d: Outage Duration Quartiles

Table 2a-d : Outage Dose Quartiles

Table 3a-d : Normal Operation Dose Quartiles

Table 4a-d : Total Dose Quartiles

Table 5: 2010 BWR Occupation Dose Data

For reference, selected data for 2010 BWR collective dose per reactor unit is provided in the table below:

Country	Collective Dose per Reactor (man.Sv)
United States	1.56
Japan	0.78
Sweden	0.93

Table 1a: 2010 BWR Outage Duration - Top Quarter

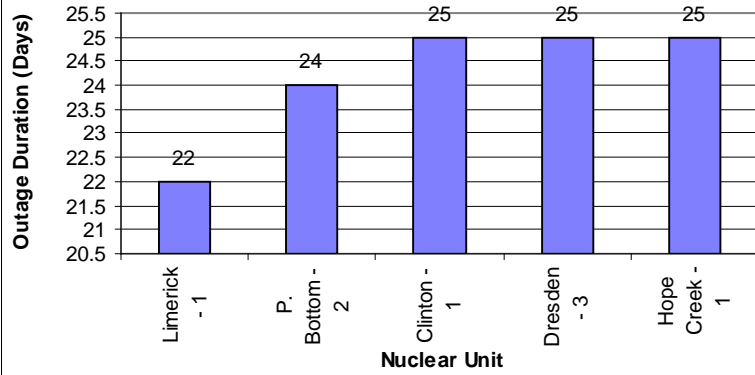


Table 1c: 2010 BWR Outage Duration - Third Quartile

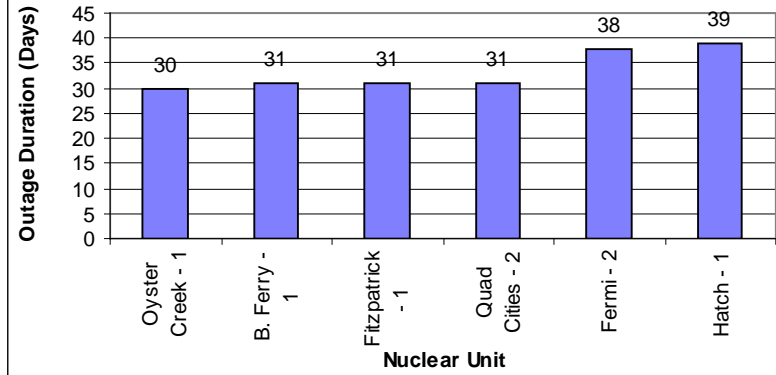


Table 1b: 2010 BWR Outage Duration - Second Quartile

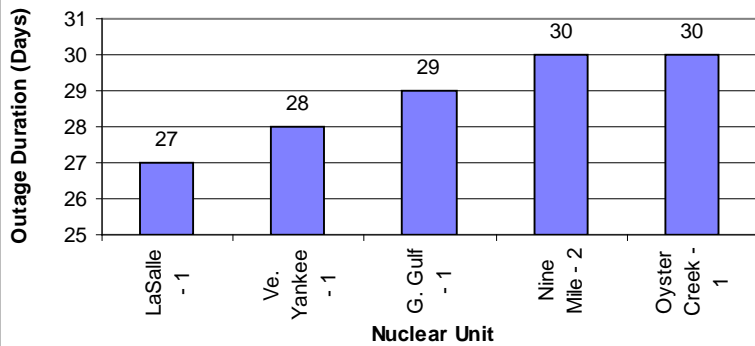
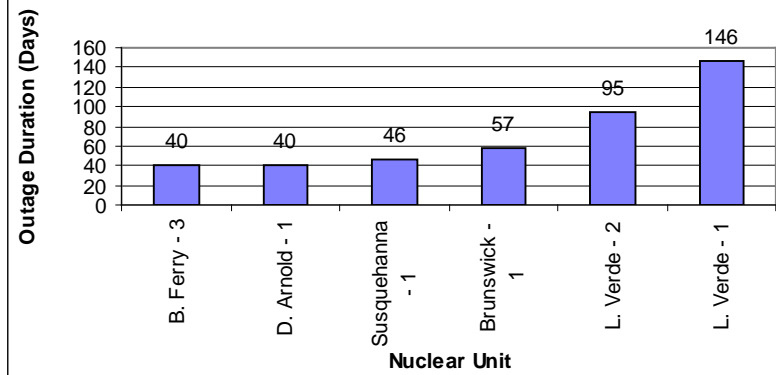
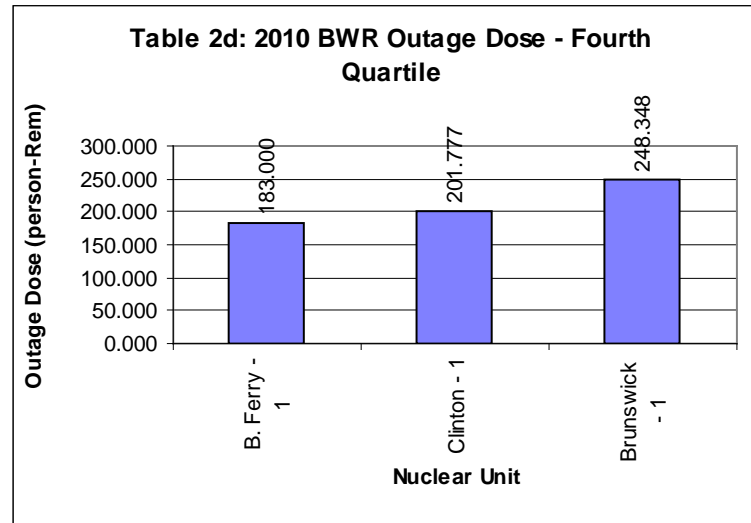
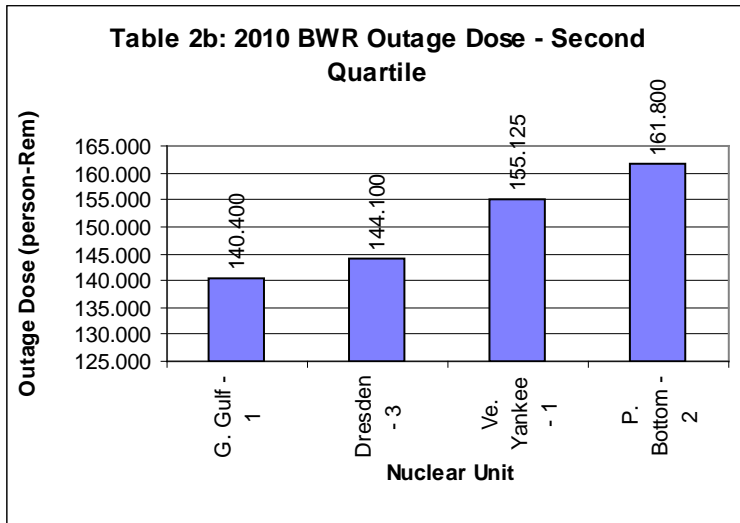
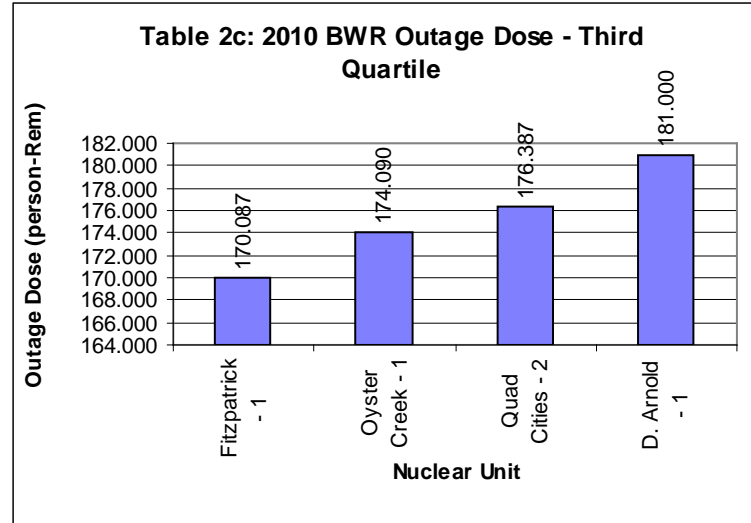
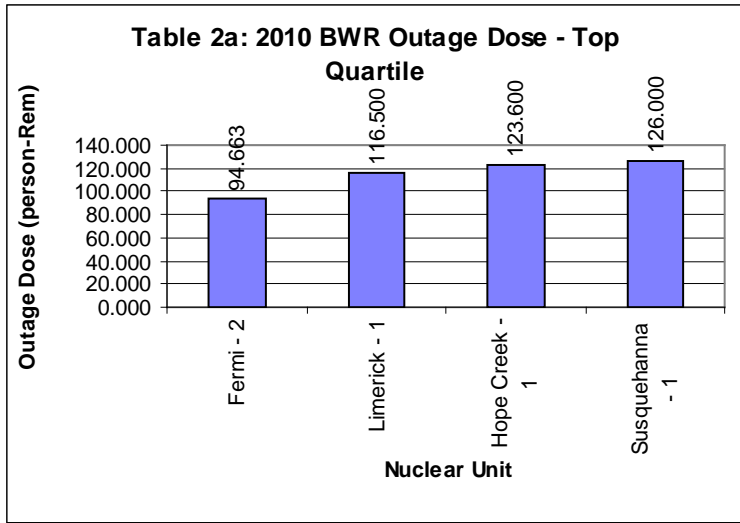


Table 1d: 2010 BWR Outage Duration - Fourth Quartile





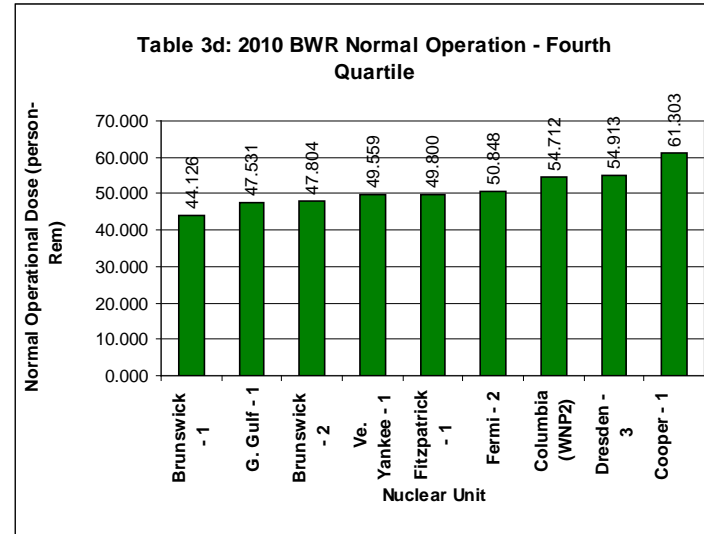
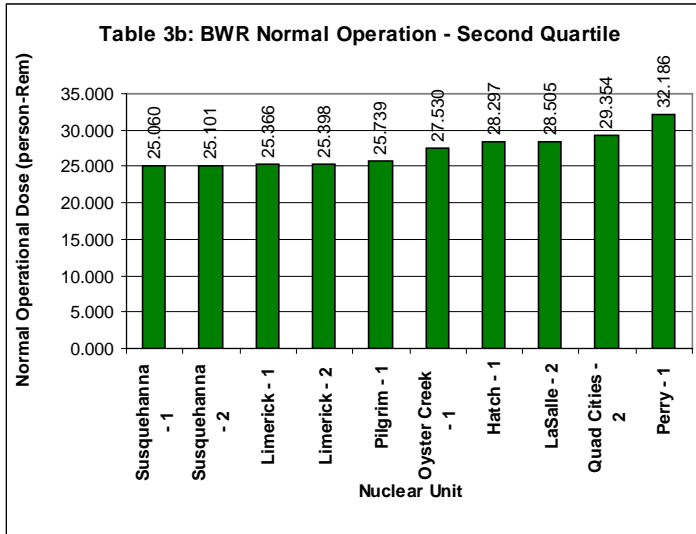
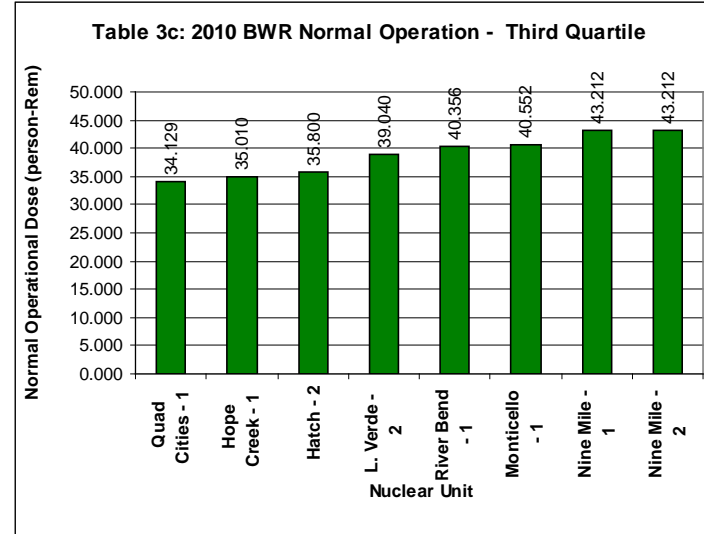
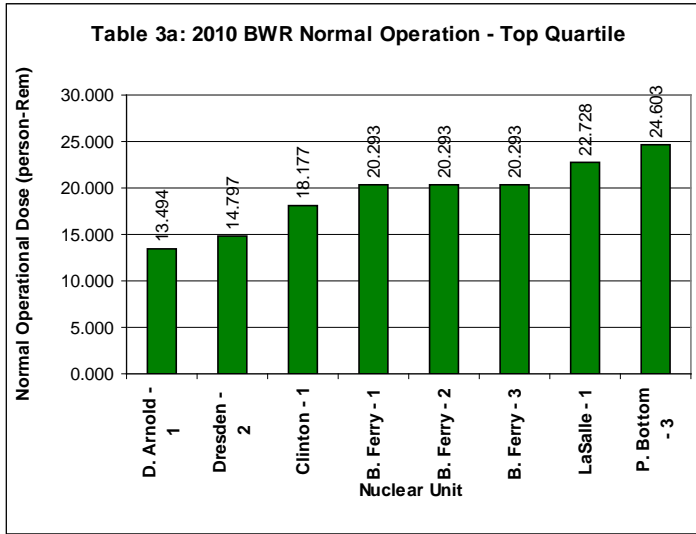


Table 4a: 2010 BWR Total Dose - Top Quartile

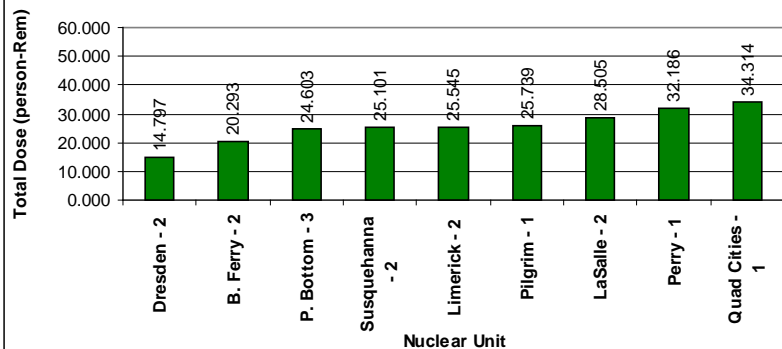


Table 4c: 2010 BWR Total Dose - Third Quartile

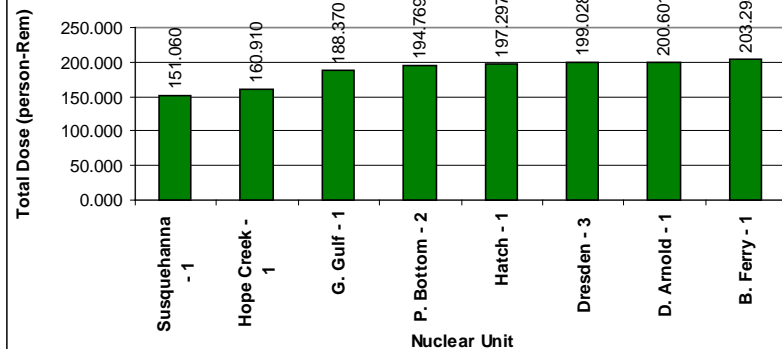


Table 4b: 2010 BWR Total Dose - Second Quartile

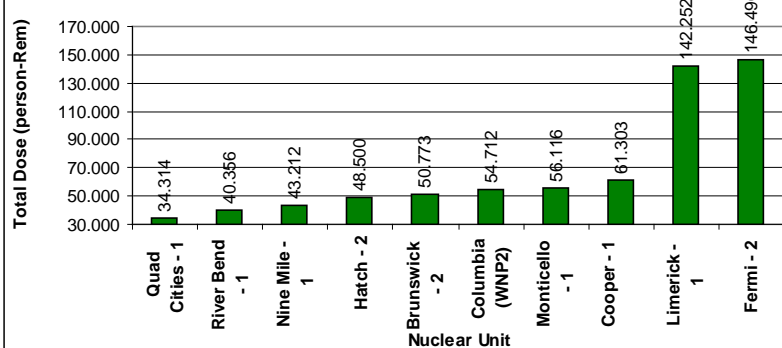


Table 4d: 2010 BWR Total Dose - Fourth Quartile

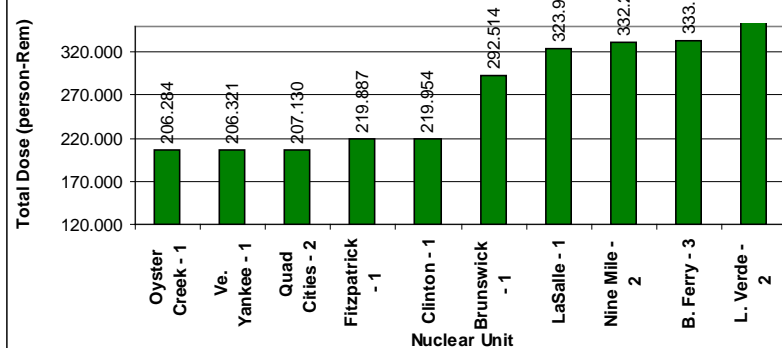


Table 5: 2010 BWR Occupation Dose Data

Nuclear Unit	Outage Start Date	Outage End Date	Outage Duration	Outage Dose (Man.rem)	Normal Operation	Other Shutdowns	Total Unit Dose	Total Site Dose	TLD Values
B. Ferry - 1	10/24/2010	11/23/2010	31	183.000	20.293		203.293		
B. Ferry - 2					58.6		58.600		
B. Ferry - 3	2/28/2010	4/8/2010	40	312.870	20.293		333.163	595.056	556.749
Brunswick - 1	2/27/2010	4/24/2010	57	285.960	44.126	0.040	330.126		
Brunswick - 2					47.804	2.969	50.773	380.899	407.424
Clinton - 1	1/11/2010	2/4/2010	25	201.777	18.177		219.954	219.954	219.954
Columbia (WNP2)					54.712		54.712	54.712	54.712
Cooper - 1					61.303		61.303	61.303	61.303
D. Arnold - 1	10/24/2010	12/2/2010	40	181.000	13.494	6.107	200.601	200.601	200.601
Dresden - 2					14.797		14.797		
Dresden - 3	11/1/2010	11/25/2010	25	144.100	54.913	0.015	199.028	213.825	213.825
Fermi - 2	10/25/2010	12/1/2010	38	94.663	50.848	0.979	146.490	146.490	146.49
Fitzpatrick - 1	9/13/2010	10/13/2010	31	170.087	49.800		219.887	219.887	219.887
G. Gulf - 1	4/26/2010	5/24/2010	29	140.400	47.531	0.439	188.370	188.370	188.37
Hatch - 1	2/8/2010	3/18/2010	39	169.000	28.297		197.297		
Hatch - 2					35.800	12.700	48.500	245.797	245.797
Hope Creek - 1	10/16/2010	11/9/2010	25	123.600	35.010	2.300	160.910	160.910	160.91
L. Verde - 1	3/15/2010	8/8/2010	146	534.443	88.443		622.886		
L. Verde - 2	9/28/2010	12/31/2010	95	338.840	39.040		377.880	1000.766	
LaSalle - 1	2/8/2010	3/6/2010	27	290.431	22.728	10.806	323.965		
LaSalle - 2					28.505		28.505	352.470	384.434
Limerick - 1	3/22/2010	4/12/2010	22	116.500	25.366	0.386	142.252		
Limerick - 2					25.398	0.147	25.545	167.797	167.797
Monticello - 1					40.552	15.564	56.116	56.116	56.116
Nine Mile - 1					43.212		43.212		

Nuclear Unit	Outage Start Date	Outage End Date	Outage Duration	Outage Dose (Man.rem)	Normal Operation	Other Shutdowns	Total Unit Dose	Total Site Dose	TLD Values
Nine Mile - 2	4/3/2010	5/2/2010	30	289.260	43.212		332.472	375.684	375.424
Oyster Creek - 1	11/1/2010	11/30/2010	30	174.090	27.530	4.664	206.284	206.284	206.284
P. Bottom - 2	9/13/2010	10/6/2010	24	161.800	32.969		194.769		
P. Bottom - 3					24.603		24.603	219.372	219.372
Perry - 1					32.186		32.186	32.186	32.186
Pilgrim - 1					25.739		25.739	25.739	25.739
Quad Cities - 1					34.129	0.185	34.314		
Quad Cities - 2	3/15/2010	4/14/2010	31	176.387	29.354	1.389	207.130	241.444	241.444
River Bend - 1					40.356		40.356	40.356	40.356
Susquehanna - 1	3/2/2010	4/16/2010	46	126.000	25.060		151.060		
Susquehanna - 2					25.101		25.101	176.161	176.161
Ve. Yankee - 1	4/25/2010	5/22/2010	28	155.125	49.559	1.637	206.321	206.321	206.321