



**INFORMATION SYSTEM ON OCCUPATIONAL EXPOSURE**

**General Distribution**

**July 2012**

**ISOE Information Sheet**

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

**North American Boiling Water Reactor (BWR)  
2007 Occupational Dose Benchmarking Charts**

**NATC ISOE Information Sheet No. 07-5**

NATC ISOE Information Sheet No. 07-5 presents the North American Boiling Water Reactor (BWR) occupational exposure results for FY 2007. Exposure categories per unit include refueling outage duration and dose, normal operations dose, and total dose.

The 2007 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**

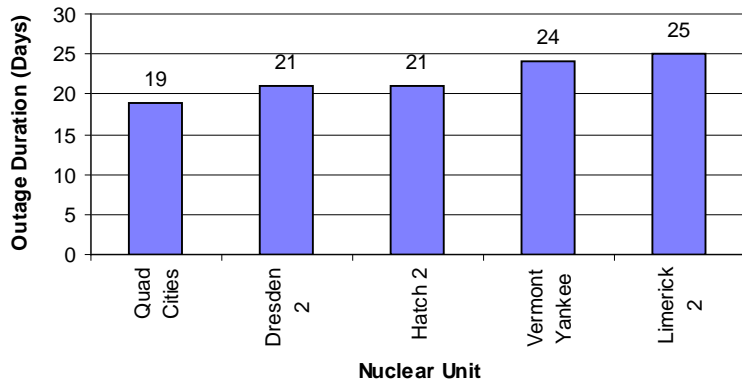
**Table 4a-d : Total Dose Quartiles**

**Table 5: 2007 BWR Occupation Dose Data**

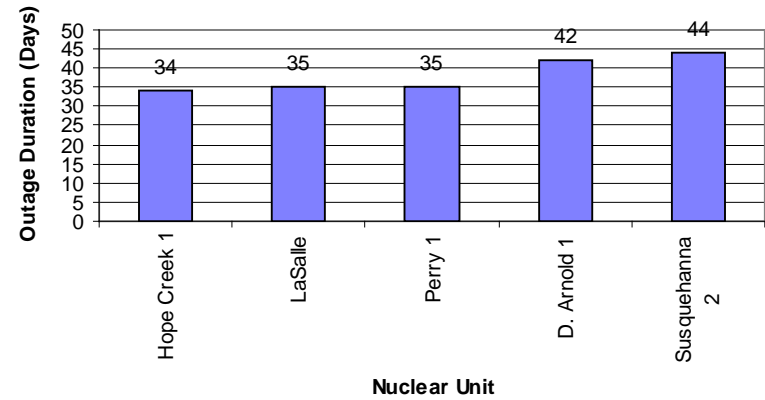
For reference, selected data for 2007 BWR collective dose per reactor unit is provided in the table below:

<b>Country</b>	<b>Collective Dose per Reactor (man.Sv)</b>
United States	1.54
Sweden	1.06
Japan	1.47

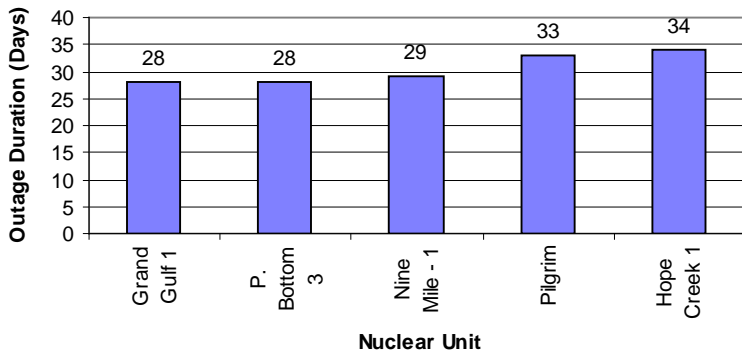
**Table 1a: 2007 BWR Outage Duration - Top Quarter**



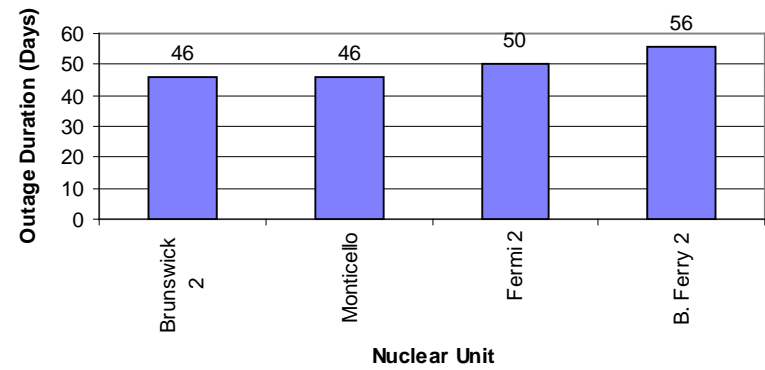
**Table 1c: 2007 BWR Outage Duration - Third Quartile**

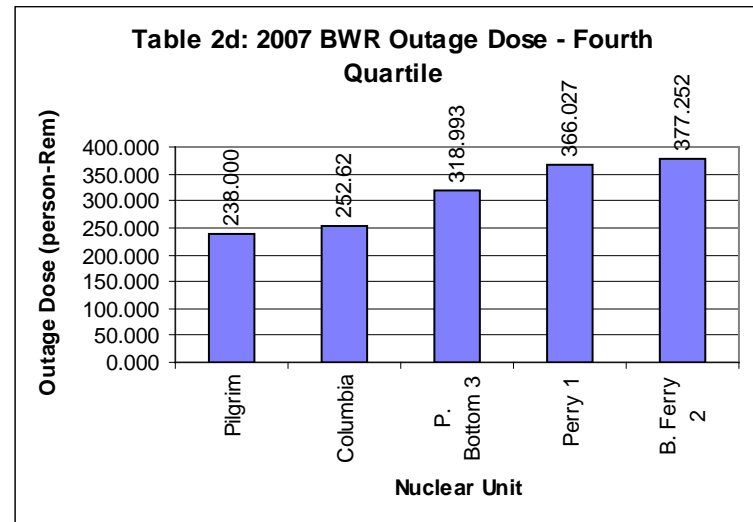
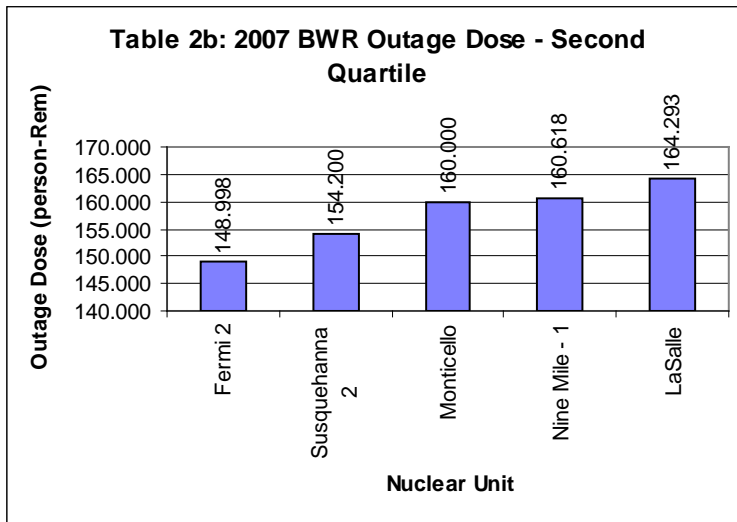
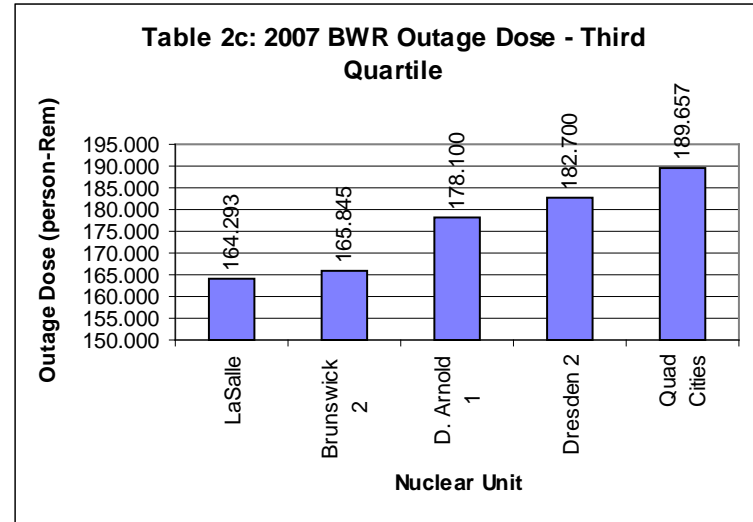
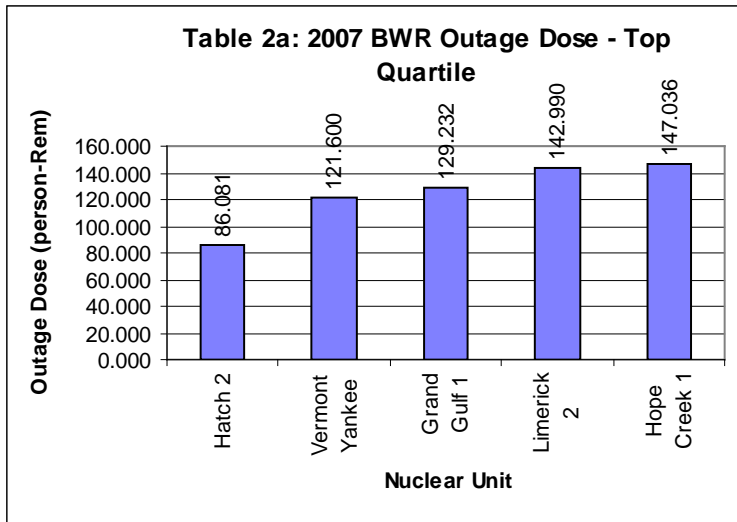


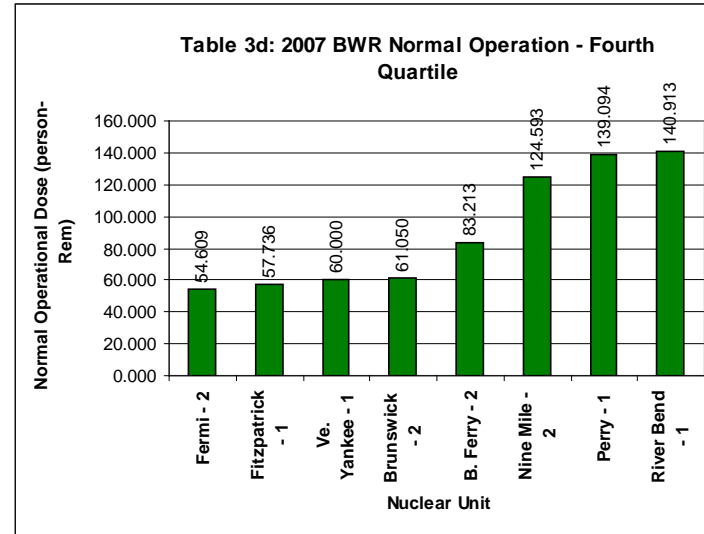
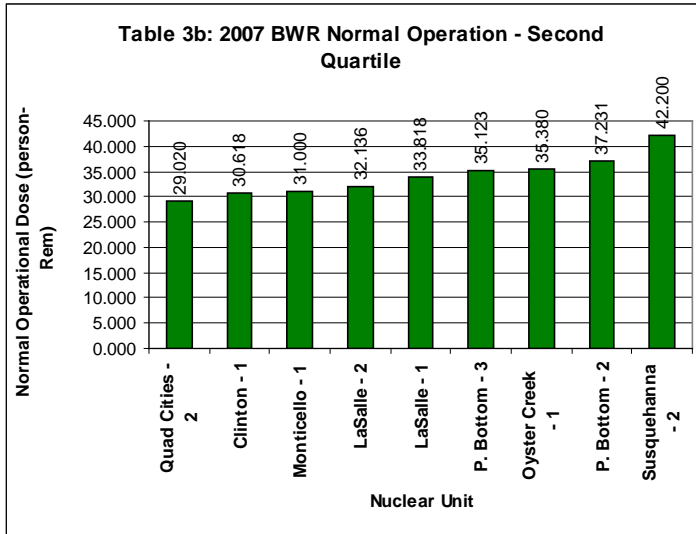
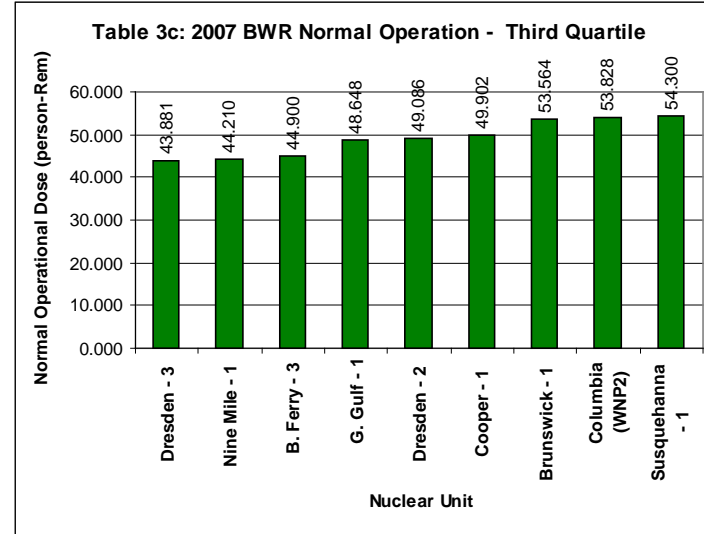
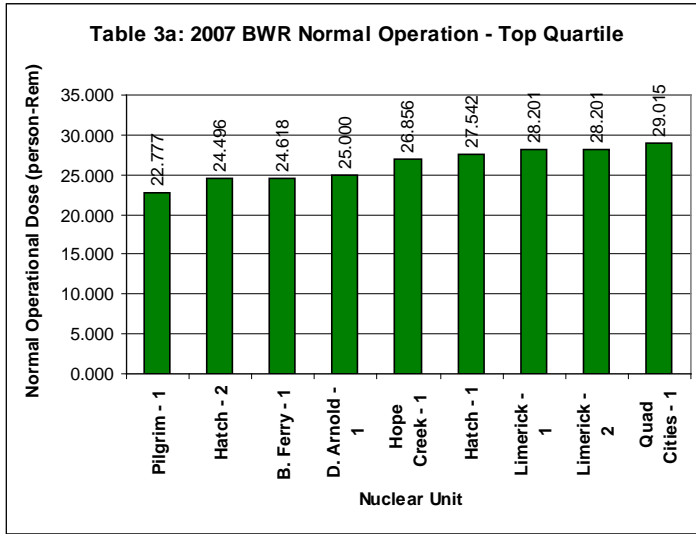
**Table 1b: 2007 BWR Outage Duration - Second Quartile**



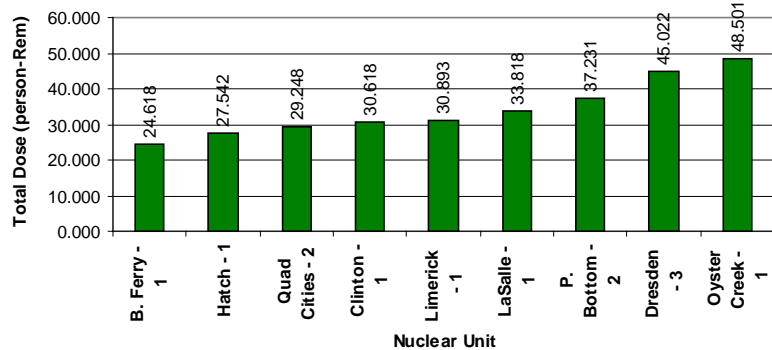
**Table 1d: 2007 BWR Outage Duration - Fourth Quartile**



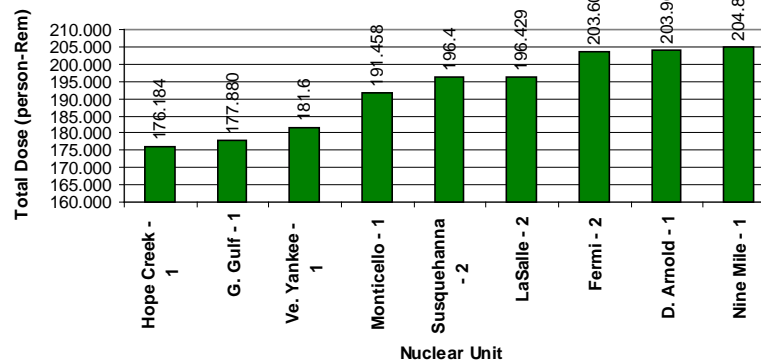




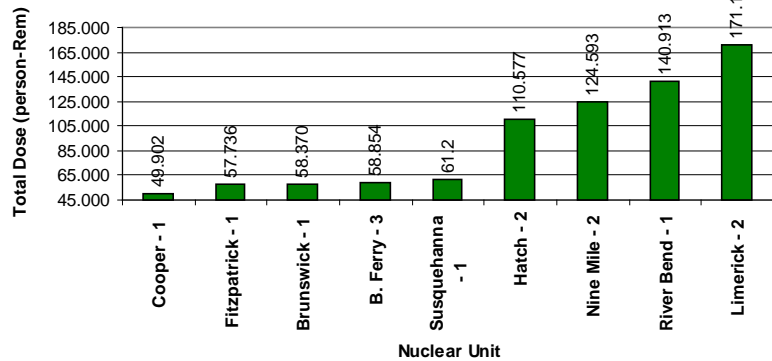
**Table 4a: 2007 BWR Total Dose - Top Quartile**



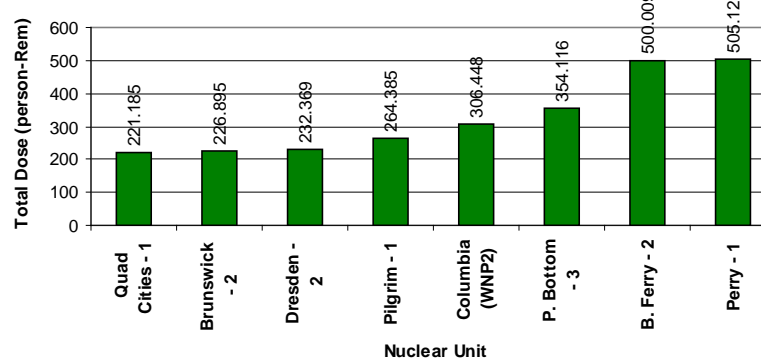
**Table 4c: 2007 BWR Total Dose - Third Quartile**



**Table 4b: 2007 BWR Total Dose - Second Quartile**



**Table 4d: 2007 BWR Total Dose - Fourth Quartile**



**Table 5: 2007 BWR Occupation Dose Data**

Nuclear Unit	Outage Start Date	Outage End Date	Outage Duration	Outage Dose	Normal Operation	Other Shutdowns	Total Dose	TEDE Total Site Dose
B. Ferry - 1					24.618		24.618	
B. Ferry - 2	2/20/2007	4/18/2007	56	377.252	83.213	39.544	500.009	
B. Ferry - 3					44.900	13.954	58.854	554.314
Brunswick - 1					53.564	4.806	58.370	
Brunswick - 2	3/3/2007	4/18/2007	46	165.845	61.050		226.895	290.093
Clinton - 1					30.618		30.618	30.618
Columbia (WNP2)				252.620	53.828		306.448	306.443
Cooper - 1					49.902		49.902	49.902
D. Arnold - 1	2/4/2007	3/18/2007	42	178.100	25.000	0.800	203.900	183.609
Dresden - 2	10/29/2007	11/19/2007	21	182.700	49.086	0.583	232.369	
Dresden - 3					43.881	1.141	45.022	275.697
Fermi - 2	9/29/2007	11/18/2007	50	148.998	54.609		203.607	194.039
Fitzpatrick - 1					57.736		57.736	58.741
G. Gulf - 1	3/20/2007	4/17/2007	28	129.232	48.648		177.880	177.884
Hatch - 1					27.542		27.542	
Hatch - 2	2/10/2007	3/3/2007	21	86.081	24.496		110.577	137.273
Hope Creek - 1	10/12/2007	11/15/2007	34	147.036	26.856	2.292	176.184	191.068
LaSalle - 1					33.818		33.818	
LaSalle - 2	2/26/2007	4/2/2007	35	164.293	32.136		196.429	228.373
Limerick - 1					28.201	2.692	30.893	
Limerick - 2	3/10/2007	4/4/2007	25	142.990	28.201		171.191	197.104
Monticello - 1	3/14/2007	4/29/2007	46	160.000	31.000	0.458	191.458	191.398
Nine Mile - 1			29	160.618	44.210		204.828	
Nine Mile - 2					124.593		124.593	329.307
Oyster Creek - 1					35.380	13.121	48.501	46.59
P. Bottom - 2					37.231		37.231	

<b>Nuclear Unit</b>	<b>Outage Start Date</b>	<b>Outage End Date</b>	<b>Outage Duration</b>	<b>Outage Dose</b>	<b>Normal Operation</b>	<b>Other Shutdowns</b>	<b>Total Dose</b>	<b>TEDE Total Site Dose</b>
P. Bottom - 3	9/23/2007	10/21/2007	28	318.993	35.123		354.116	384.795
Perry - 1	3/26/2007	4/30/2007	35	366.027	139.094		505.121	505.121
Pilgrim - 1	4/8/2007	5/11/2007	33	238.000	22.777	3.608	264.385	240.526
Quad Cities - 1	5/4/2007	5/23/2007	19	189.657	29.015	2.513	221.185	
Quad Cities - 2					29.020	0.228	29.248	249.927
River Bend - 1					140.913		140.913	131.373
Susquehanna - 1					54.300	6.900	61.200	
Susquehanna - 2	3/3/2007	4/16/2007	44	154.200	42.200		196.400	263.021
Ve. Yankee - 1	5/12/2007	6/5/2007	24	121.600	60.000		181.600	171.2

**Note: All doses are recorded in man.rem**