



General Distribution

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ISOE INFORMATION SHEET

North American Technical Center
Information System on Occupational Exposure

3-YEAR ROLLING AVERAGE ANNUAL DOSE COMPARISONS
United States Boiling Water Reactor (BWR)
2000-2002 Occupational Dose Benchmarking Charts

NATC ISOE Information Sheet No. 03-2

NATC ISOE Information Sheet No. 03-2 presents the U.S. Boiling Water Reactor (BWR) occupational exposure results for FY 2001. The 3-Year Rolling Average Occupational Dose Comparisons provide a means to evaluate site occupational dose performance over an entire fuel cycle.

For this report, annual site doses were used for 2000, 2001 and 2002. Annual site doses were divided by the number of units per site. The top 10% US BWR units for this period are provided in the following table.

Site Name	Three Year Rolling Average Person-Rem (Person-mSv)
Duane Arnold	72 (720)
Pilgrim 1	90 (900)
Hope Creek 1	103 (1030)
Limerick 1,2	105 (1050)

Table 1: U.S. BWR Three-Year Rolling Average, 2000-2002

BOILING WATER REACTORS
COLLECTIVE RADIATION EXPOSURE PER UNIT
THREE YEAR ROLLING AVERAGE
2000 - 2002 Actual Values

SITE NAME	COMPANY	Collective Radiation Exposure Per Site (Person-Rem or Person-cSv)											2000*	2001*	2002*	Three Year Rolling Average
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Per Unit				
Duane Arnold	Nuclear Management Corp.	861	199	502	407	119	358	252	63	237	201	44.181	137.564	35.061	72	
Pilgrim 1	Entergy Operations, Inc.	225	570	265	410	213	488.5	116	588	71.4	344	50.797	179.585	38.28	90	
Hope Creek 1	Public Service Electric & Gas Co.	196	366	437	97.6	327	197	149	350	54.8	279	128.788	154.68	25.922	103	
Limerick 1,2	Exelon Energy	176	104	330	210	270	259.5	234	234	357	271	260.611	210.336	160.324	105	
WNP-2	Columbia	536	388	612	468.6	867	543.6	370	251	286	155	53.152	225.399	46.65	108	
Browns Ferry 1,2,3	Tennessee Valley Authority	1310	354	516	869	854.8	408.7	384	516	361	447	333.215	293.879	357.573	109	
Vermont Yankee	Vermont Yankee Nuclear Power Co.	307	100	356	204	38.2	181	231	57	199	176	37.846	143.01	150.446	110	
Fermi 2	Detroit Edison Co.	83	211	230	34.5	213.1	27.7	157	49	208	36	145.964	168.69	38.235	118	
Perry 1	First Energy Corp.	638	147	571	278.4	691.2	65.2	307	272	41.9	326	55.827	258.268	70.258	128	
LaSalle 1,2	Exelon Energy	948	806	1168	855	727	512	818	316	422	576	260.32	82.721	449.587	132	
Grand Gulf 1	Entergy Operations, Inc.	482	103	483	331.9	56.44	342	354	105	304	226	34.877	185.214	176.396	132	
Cooper	Nebraska Public Power District	379	407	73	390	82.4	228	47	174	182	49	199.589	168.665	38.739	136	
Hatch 1,2	Southern Nuclear Operating Co..	1456	1160	549	669	868	490	441	722	320	329	401.891	230.245	214.441	141	
Susquehanna 1,2	PP&L Susquehanna LLC	440	507	724	335	441.6	475	290	433	361	431	333.163	289	259.968	147	
Brunswick 1,2	Progress Energy	1548	778	623	872	999	683.4	716	411	396	418	321.785	302.812	275.534	150	
River Bend 1	Entergy Operations, Inc.	489	127	710	179.7	514	79.4	394	347	57.7	340	216.053	207.614	35.145	153	
Monticello	Nuclear Management Corp.	94	465	114	494	394.6	44	300	106	209	70	216.136	220.683	40.03	159	
Clinton 1	AmerGen	553	220	404	498	63.3	318	349	172	144	87	253.382	34	208.094	165	
Peach Bottom 2,3	Exelon Energy	418	1074	502	551.9	578	397	282	490	366	319	330.928	344.283	333.056	168	
Dresden 2,3	Exelon Energy	1400	1006	619	1655	833.4	876	410	467	427	591	261.684	400.702	355.011	170	
Nine Mile Pt. 1,2	Constellation Energy	700	262	616	632.5	147.16	757.5	288	429	378	447	282.838	343.197	516.663	190	
Fitzpatrick	Entergy nuclear NE	884	292	674	231.50	323	327.7	357	91	358	68	300.997	56.125	230.523	196	
Oyster Creek	AmerGen	310	1189	657	416	844	95	449	50	308	42	614.379	45.817	265.81	309	
Quad Cities 1,2	Exelon Energy	1028	508	1157	849	1127.89	736	1025	654	761	201	893.766	143.849	1786.021	471	

Cofrentes	Iberdrola	318	525	151	469	381	47	181	273	58	221	264			
Laguna Verde	Comision Federal de Electricidad		514	544	196.8	430							758.1		
Santa Maria De Garona	Nuclenor			708	100.5	408		490							
Ringhals 1	Statens Vattenfallsverk	205	210	385											
Total U.S. Units Included :		37	37	37	37	37	37	37	37	36 ^	35	36	36	35	35
Annual U.S. BWR Average :		418	307	348	323	313	240	236	199	189	184	168	134	175	107

* Based on Official TLD Data

^ Big Rock Point is shut down.

Millstone-1 is shut down.