



INFORMATION SYSTEM ON OCCUPATIONAL EXPOSURE

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  
Canada Reactors (CANDU)  
2012-2014 Occupational Dose Benchmarking Charts

### NATC ISOE Information Sheet No. 2015-15

NATC ISOE Information Sheet No. 2015-15 presents the Canadian reactor annual occupational exposure results for multiple years (2004-2014). The 3-Year Rolling Average Occupational Dose Comparisons provide a means to evaluate site occupational dose performance over multiple years. The data shows the higher outage doses during years of extensive maintenance/refurbishment work at Bruce A 1,2 & Pt. Lepreau performed to achieve future dose reduction due to installation of new plant components.

For this report, annual site doses were used for 2012, 2013 and 2014. Annual site doses were divided by the number of operating units per site. The 3-Year

Rolling Average results for this period are provided in the following table.

Site Name	Three Year Rolling Average Person-Rem (Person-mSv)
Bruce A	152 (1520)
Pickering	102 (1020)
Darlington	70 (700)
Point Lepreau	57 (570)
Bruce B	102 (1020)

**Table 1: Canadian Three-Year Rolling Average, 2012-2014.**

**Table 1: CANADIAN REACTORS: COLLECTIVE DOSE PER UNIT****THREE YEAR ROLLING AVERAGE***2012 – 2014 Actual Values*

SITE NAME	No. of Units	CTY	Collective Radiation Exposure Per Site (Person-Rem)											Three Year Rolling Average
			2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Per Unit
Darlington	4	Ca	262.54	283.99	320	410	173.6	313.54	368.1	166.6	179.2	444.9	220.4	70
Pickering	6*	Ca	807.6	1132	766.4	587.2	473.18	774	1678.9	608.9	841.9	444.6	540.62	102
Bruce A	4	Ca	147.56	234.17	335.53	468.42	744.4	733.9	766.5	1031.9	1325.58	128.8	375.2	152
Bruce B	4	Ca	270.28	634.11	380.41	421.16	665.08	510.81	361.3	710.2	140.44	566.3	517.9	102
Point Lepreau	1	Ca	91.9	157.69	90.08	66.43	599.75	408.22	137.5	195.3	94.7	22.5	54.5	57
19*			1610.39	2591.81	2030.42	2006.31	2771.21	2808.12	3386.9	2783.1	2604.72	1607.1	1708.62	
Total of Canadian Units Included			22	22	22	22	22	22	22	20	20	19	19	
Annual CANDU Average			73.20	117.81	92.29	91.20	125.96	127.64	153.95	139.16	130.24	84.58	89.93	

\*Pickering 2 and 3 went into long-term safe storage in 2011.