



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)
2015-2017 Occupational Dose Benchmarking Charts

NATC ISOE Information Sheet No. 2018-15

NATC ISOE Information Sheet No. 2018-15 presents the Canadian reactor annual occupational exposure results for multiple years (2007-2017). 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 2015, 2016 and 2017. 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	87 (870)
Pickering	84 (840)
Darlington	152 (1520)
Point Lepreau	60 (600)
Bruce B	129 (1290)

Table 1: Canadian Three-Year Rolling Average, 2015-2017.

Table 1: CANADIAN REACTORS: COLLECTIVE DOSE PER UNIT
THREE YEAR ROLLING AVERAGE

2015 – 2017 Actual Values

SITE NAME	No. of Units	CTY	Collective Radiation Exposure Per Site (Person-Rem)											Three Year Rolling Average
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Per Unit
Darlington	4	Ca	410	173.6	313.54	368.1	166.6	179.2	444.9	220.4	264.1	307.18	1249.7	152
Pickering	6*	Ca	587.2	473.18	774	1678.9	608.9	841.9	444.6	540.62	554.73	562.78	402.8	84
Bruce A	4	Ca	468.42	744.4	733.9	766.5	1031.9	1325.58	128.8	375.2	476.81	444.6	124.32	87
Bruce B	4	Ca	421.16	665.08	510.81	361.3	710.2	140.44	566.3	517.9	265.5	750	536.01	129
Point Lepreau	1	Ca	66.43	599.75	408.22	137.5	195.3	94.7	22.5	54.5	22	100.5	56.53	60
19*			2006.31	2771.21	2808.12	3386.9	2783.1	2604.72	1607.1	1708.62	1583.14	2165.06	2369.36	
Total of Canadian Units Included			22	22	22	22	20	20	19	19	19	19	19	
Annual CANDU Average			91.20	125.96	127.64	153.95	139.16	130.24	84.58	89.93	83.32	113.95	124.7	

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