

Table 1
Nuclear Electricity Generation in Canada
(March 1987)

	Gross Generation MWe	Gross Generation MWh	Capacity Factor	Lifetime Generation MWh
1 NPD	25	6,461	34.7	3,680,201
2 Pickering-1	542	0	0	47,911,946
2 Pickering-2	542	0	0	46,803,376
Pickering-3	542	383,620	95.1	54,968,460
Pickering-4	542	397,460	98.6	54,090,313
Pickering-5	540	406,600	100.0	16,313,766
Pickering-6	540	412,300	100.0	12,543,024
Pickering-7	540	403,600	100.0	9,461,097
3 Pickering-8	540	62,440	15.5	4,846,670
4,5 Bruce-1	826	78,204	12.7	58,149,847
5 Bruce-2	904	531,879	79.1	56,354,101
5 Bruce-3	904	658,560	97.9	58,189,544
5 Bruce-4	904	644,926	95.9	52,176,765
Bruce-5	885	661,600	100.0	15,581,000
Bruce-6	890	622,100	93.9	17,574,499
Bruce-7	890	552,300	83.4	7,339,400
Pointe Lepreau	680	507,036	100.0	23,660,190
Gentilly-2	685	477,900	93.8	13,670,600

1 — Power cut back for repairs.

2 — Continued outage for large-scale fuel channel replacement.

3 — Scheduled outage.

4 — Western shift outage.

5 — Production and capacity figures include electricity and steam.

Source: Canadian Nuclear Association, *Nuclear Canada*, Vol. 26, No. 5, June 1987, p. 8.

Radioactivity and Radiological Protection

As anxiety increases over long-term safety and environmental protection, solving the problems of the management of radioactive waste is a crucial factor in making the atom a fully acceptable energy source. Despite the many clashes over this question, all parties agree that protection of human health remains the decisive factor in the choice of a radioactive waste management policy.⁽¹⁰⁾ The result of all safety measures must be to ensure, that in any reasonably likely circumstances, these dangerous products will not emit radiation at a level capable of damaging human health. According to the OECD Nuclear Energy Agency, the environmental goals of nuclear waste management may be summarized as follows:

- i) to comply with general radiological protection principles;
- ii) to preserve the quality of the natural environment;

⁽¹⁰⁾ S. Fareeduddin and J. Hirling, "The Radioactive Waste Management Conference", *International Atomic Energy Agency Bulletin*, Vol. 25, No. 4, December 1983, p. 4.