

Although the Standing Committee on Environment and Forestry recognizes the overriding importance of the issue "to use or not to use" the nuclear option, it does not intend to pronounce itself in favour of one or the other of the alternatives described above. Like the World Commission on Environment and Development, the Committee supports the thesis that nuclear production of electrical power is only justified under circumstances where certain problems, still unanswered, can be solved in a way that is satisfactory from the social, economic, environmental and ethical standpoints. These problems include the decommissioning of nuclear power stations and the disposal of high-level radioactive waste.<sup>(4)</sup>

Few scientific discoveries have excited public opinion as nuclear energy has, and it is generally conceded that popular perceptions of it are strongly influenced by the difficulties connected with management of spent fuel and other radioactive products.<sup>(5)</sup> The thorny problem of storage of high-level radioactive waste is without a doubt one of those that give rise to the most questions. By the end of 1987, 25 years after Canada's first nuclear power plant went into operation, some 12,400 metric tonnes of spent fuel will be stored in our various nuclear power plants. By the year 2000, that amount will have grown to 42,000 tonnes; and to 100,000 tonnes in 2024 (see Figures 2 and 3).<sup>(6)</sup> This takes on very great importance indeed in light of the fact that there is still no proven method for disposing of this highly radioactive material.

If one thing is certain about nuclear energy, it is that — whatever its future — the waste which it produces must be disposed of. Governments and the nuclear industry must do everything possible to understand and tackle openly the public's real concerns about disposal. Having heard from nine groups of witnesses, and visited the Whiteshell Nuclear Research Establishment in Manitoba, the Committee wishes to reflect on what it has heard and seen by presenting the following report and recommendations.

<sup>(4)</sup> The expression "high-level radioactive waste" refers essentially to spent (or used) nuclear fuel, whether it has been reprocessed or not.

<sup>(5)</sup> International Atomic Energy Agency/OECD Nuclear Energy Agency, *Nuclear Energy: Prospects to 2000*, Paris, 1982, p. 112.

<sup>(6)</sup> OECD Nuclear Energy Agency, *Nuclear Spent Fuel Management: Experience and Options*, Paris, 1986, p. 61.