1976 and 5 953 t in 1977. Recent increases were due in part to expanded output from the three established producers, and in part to three new producers, the first starting in late 1975 and the most recent in 1977. Further increases in production can be expected as a result of continued expansion and the probable development of several new operations. Based on known deposits, Canada could be producing some 12 500 tonnes U/year by 1985.

A sellers market for uranium during 1974 and 1975 saw prices in the $104 per kilogram range early in 1976. Exploration activity significantly expanded in Canada with expenditures of some $40 to $50 million. Preliminary figures indicate expenditures of $60 to $70 million in 1977. Activity was reported in every province and the territories, but attention focused on northern Saskatchewan, where two significant discoveries were made at Key Lake — one in late 1975 and the other in mid-1976. Estimates of recoverable uranium resources continued to increase.

A uranium resource appraisal group was established within the energy, mines and resources department in September 1974 to audit Canada's uranium resources annually. The group completed its third annual assessment early in 1977 under two price categories, up to $88/kg ($40/lb.) U_3O_8 and from $88 to $132/kg ($40 to $60/lb.) U_3O_8.

Resources recoverable for up to $132/kg ($60/lb.) U_3O_8 were estimated at: measured 83 000 tonnes elemental uranium; indicated 99 000 t; and inferred 307 000 t. The following conversion factors have been used to calculate these reserves: $88/kg ($40/lb.) U_3O_8 = $104/kg U; 1.0 tonne U (elemental uranium) = 1.2999 short tons U_3O_8.

After deducting 1976 production of 4 850 tonnes U from 1975 resources in these categories, resources have increased by some 14.3% over those reported in 1975.

In January 1977 the Canadian government embargoed exports of Canadian nuclear materials and technology to all countries which had not completed negotiations of revised nuclear safeguard agreements with Canada. These revisions were a result of Canada's two-stage effort, announced in 1974 and 1976, to strengthen export requirements in the interests of nuclear safeguards. Shipments of Canadian uranium to a number of countries were affected, principally Japan, countries of the European Economic Community, Switzerland and the United States. At year end 1977 agreements were in place with all but Japan and Switzerland, although negotiations with Japan were concluded early in 1978.

A number of inquiries under way in 1976 and 1977 could affect the shape of Canada's future uranium and nuclear power industry. Among these were the Saskatchewan government's Cluff Lake inquiry board, examining the environmental, health and safety aspects of Amok Ltd.'s Cluff Lake uranium project, as well as the overall implications of further uranium developments in Saskatchewan; an Ontario government environmental assessment board's hearings on environmental impact of expansion of uranium operations in the Elliot Lake area; and the Porter Commission on electric power planning in Ontario. Ontario Hydro's commitment to nuclear power forms a major part of the Porter inquiry.

In August 1977 the energy, mines and resources department published a report on management of Canada's nuclear wastes. It concluded: "The country needs a consolidated plan for the management of radioactive wastes now: a piecemeal, hesitant approach to this challenge will not be in the national interest." The report recommended the following targets: 1978, declare a national plan to deal with nuclear wastes and acceleration of R&D programs; 1983, choose at least two hard-rock sites in Ontario to be developed for geological disposal; 1985, have shafts sunk and testing under way in the hard-rock sites; 1988, start construction of irradiated-fuel handling facilities at one site; 1990, start test disposal of immobilized irradiated fuel and immobilized reactor wastes; 1995 to 2000, have an operating repository capable of receiving Canada's annual output of irradiated fuel.

In November 1977 the minister of energy, mines and resources tabled a proposed new act for nuclear control and administration to replace the 30-year-old Atomic Energy Control Act. Its main objective is separation of responsibilities for health, safety,