

Device helps locate waste sites

An instrument developed at the University of Saskatchewan shows promise in helping to locate suitable underground sites for disposing of high-level radioactive wastes from nuclear reactors.

Called an acoustic borehole logger, it is being used by Swedish and United States scientists to study the feasibility of storing nuclear power wastes in mined granite caverns and by the Geological Survey of Canada for studies of rock formations near Chalk River, Ontario.

The device was developed by Professor Michael King of the University's geological sciences department.

Laboratory studies on the location of suitable sites for waste disposal will be carried out in Saskatoon, Saskatchewan by Bhaskar Pandit, a post-doctoral fellow in the geological sciences department.

The acoustic borehole logger determines the presence and extent of any cracking in rock masses.

"It can therefore help to locate rock formations that are free from cracking and thus prevent the migration of any fluids through them," Pandit said.

The four-foot-long, rod-like instrument operates in small-diameter holes drilled in the rock mass, where it generates mechanical vibrations through the adjacent rock and measures their speed.

"The speed of the vibrations is determined by the kind and quality of material they travel through," he said.

Canadians attend Zimbabwe independence ceremonies

Secretary of State for External Affairs Mark MacGuigan led Canada's delegation to the independence ceremonies for the new State of Zimbabwe, held April 18.

The official delegation also included Arnold Smith, former Secretary-General of the Commonwealth from 1965 to 1975 and Terence Bacon, Canadian High Commissioner to Zambia.

Prime Minister Trudeau and Dr. MacGuigan have also sent messages of congratulations to Prime Minister Robert Mugabe and Foreign Minister Simon Mzenda indicating that Canada looks forward to a close friendly relationship with Zimbabwe.

Zimbabwe officially became independent at midnight April 17, 1980.

Canada provides development loan for farm credit to India

The Canadian Government has provided India with a \$25-million development loan for farm credit.

Small-scale irrigation and crop diversification will be financed by the Canadian funds, which are being channeled through India's Agriculture Refinance and Development Corporation (ARDC). Target groups include small or marginal farmers, as well as landless labourers, with special emphasis also on India's poorest regions. Farmers will be helped to dig wells, irrigate their fields, and raise poultry, sheep or pigs. Other activities eligible for credit include dairy farming, rural electrification, fisheries, forestry, soil conservation, land reclamation, the purchase of camel carts (to transport crops to market), and the adoption of gobar gas units (which convert organic waste to fuel and fertilizer).

Canada's contribution is part of a larger two-year program called ARDC III which involves about \$1 billion (U.S.) in farm credit. The World Bank's International Development Association (IDA) will provide \$250 million (U.S.), while

most of the balance will come from Indian sources.

The Canadian loan, from Canadian International Development Agency (CIDA) funds, will be provided on the usual terms for most CIDA development loans — interest-free, with repayment over 50 years and no payments during the first ten years. The funds are completely untied and will be used essentially for investment in farm improvement, through the purchase of local goods, such as pumps, livestock and materials.

Canadian bilateral assistance to India last year (1978-79) was about \$32 million, with most projects (such as fertilizer shipments, dairy development and research in drylands farming) being in the agricultural sector. In addition, 39 Canadian non-governmental organizations (NGOs) were engaged in 109 projects with a total value of almost \$30 million, assisted by \$4.7 million in matching contributions from CIDA. These projects cover a wide range of development problems, with a strong emphasis on rural development and health.

Commemorative stamps depict endangered wildlife

Canada Post will issue two new 17-cent commemorative stamps devoted to two endangered wildlife species at a special ceremony to be held on May 6. The stamps will depict the Atlantic whitefish of Nova Scotia and the greater prairie chicken from western Canada.

Science knows comparatively little about the Atlantic whitefish, except that the only place in the world where it can be found today is in southern Nova Scotia. The fish belongs to the salmon family. Adults range from 150-400mm in length.

The stamp shows the Atlantic whitefish in its freshwater habitat. The illustration

is by Michael Dumas, an Ontario artist well known for his wildlife paintings.

The greater prairie chicken was once plentiful, and was found feeding off the large grassy areas in Alberta, Saskatchewan, and Manitoba mostly. As more and more of the prairies were plowed, food became scarce and its population began to decrease. Today the greater prairie chicken is almost extinct.

The illustration for the stamp was done by Robert Bateman, a Canadian wildlife artist. The stamp shows two male chickens in the dry grass of an early morning, in characteristic courtship display before a hen in the background.

