## **Protecting the Fragile Arctic Marine Environment**

ecognizing the need to protect the fragile ecosystems of the Arctic, Canada and seven other Arctic nations (Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States) met in Rovaniemi, Finland, in 1991 and adopted the Arctic Environment Protection Strategy (AEPS). Because of the special relationship of indigenous people to the Arctic and its environment, three Aboriginal organizations assisted in the development of the AEPS: the Inuit Circumpolar Conference, the Saami Council and the Russian Association of Peoples of the North. The ministers responsible for the AEPS met in 1993 in Nuuk, Greenland, and will meet for a third time in 1995 or 1996 in Canada.

Under the AEPS, working groups look at environmental problems in the air, on land and in water, as well as emergency prevention. A task force has recently been established to examine sustainable development, including the sustainable use of renewable resources by indigenous people in the Arctic.

The newest working group, on the Protection of the Arctic Marine Environment (PAME), met for the first time in Oslo, Norway, in May 1994 to design its work plan. Participating were the eight Arctic countries, observers from the three Aboriginal organizations as well as representatives from other AEPS working groups. PAME's work over the next two years will be divided into two broad categories: seabased sources of marine pollution, led by Norway, and land-based sources of marine pollution, led by Canada. PAME will attempt to identify and collect information about all major sources of pollution of the Arctic marine environment and will

assess the adequacy of existing national and multinational legal and policy instruments for protection of the marine environment. Taking into account the "precautionary principle" widely endorsed by the Rio Declaration, it will make recommendations to the AEPS ministers on the need for further measures to protect the marine environment.

## Newfoundland Offshore Burn Experiment

ver the last several years, environmental damage caused by oil spills—such as the Exxon Valdez in 1989—has pointed to the need to develop techniques that will immediately reduce the effects of such ecological accidents on marine resources.

On August 12, 1993, a consortium of over 25 agencies from Canada and the United States, including the U.S. Environmental Protection Agency, successfully conducted an experimental "burn" off the island of Newfoundland. It involved the release of two oil spills of about 50 tonnes each into a fire-proof boom.

Each burn was monitored for emissions and certain physical parameters. The experiment was the largest of its type ever conducted worldwide: 20 vessels, seven aircraft and 230 people were involved in the operation at sea.

Several findings have resulted from this trial, the most important being that burning at sea is a feasible and practical oil-spill countermeasure. The fate and behaviour of oil components and emissions from fire, still not fully understood, could be the subject of future experiments.

## **Land-Based Sources of Marine Pollution**

oastal ecosystems around the world, where 90 percent of the sea's living marine resources spend critical portions of their life cycles, are affected by humans almost everywhere and are becoming degraded on a wide scale.

Canada strongly believes in the need to establish a co-ordinated approach to this issue and to focus international attention on pollutants that are at the base of marine degradation. As a long-time, active participant in the establishment of international agreements dealing with marine resources, Canada hosted, in 1985, the final negotiating session of the Montréal Guidelines for the Protection of the Marine Environment against Pollution, and recently hosted a meeting of experts to update the 1985 guidelines.

The Montréal Guidelines were developed to assist governments in

preventing, reducing and controlling marine pollution from land-based sources. In conjunction with the international agreements, the guidelines were proposed as a broad framework for developing regional agreements, where these did not exist, and for the preparation, in the long term, of a global convention on land-based sources of marine pollution. The guidelines provide a checklist of basic provisions, rather than a model agreement for meeting the needs of specific regions.

From June 6 to 10, 1994, a group of experts met again in Montréal to review and update the guidelines and to formulate an international action plan. Some 150 delegates from around the world attended the meeting, including representatives of governments, international organizations and international non-governmental organizations.