

(Trade)

"In the last three years, U.S. exports to Canada have increased by more than 40 per cent, whereas to the rest of the OECD, U.S. exports have actually declined. In our judgment there is plenty of potential for much more growth. Neither side wants to be diverted from a brand new look at trading arrangements by irritants of the day.

(NORAD)

"Earlier today the President and I signed a five-year extension of the NORAD Treaty, which continues as the cornerstone of our joint commitment to the

defence of North America. Symbolic of this unique treaty is the fact that while the Commander of NORAD was here for the signing ceremony, his deputy, General MacKenzie of Canada, was in command at Colorado Springs.

(Miscellaneous Items)

"We discussed a full range of other international issues: efforts to counter terrorism; our interest in becoming a member of the expanded G-5; regional issues such as Central America, South Africa and the Philippines; and prospects for a new MTN round and plans for the Tokyo Summit.

(Festival of Canada)

"I was also pleased to inform the President that Canada intends to mount a very important and, I think, attractive festival of Canada, featuring the best of Canadian cultural and artistic talent. We will bring it to the United States and the festival will be held in 1988 to coincide with the opening of the new Canadian Embassy here in Washington."

Working Toward a Bilateral Solution

Canada and the United States agreed in 1980 to negotiate an air pollution agreement.

The Memorandum of Intent put a specific emphasis on acid rain.

In January, 1984, Canada proposed but the United States rejected the formation of a joint control program.

Last March Prime Minister Mulroney and President Reagan agreed to appoint personal envoys to study the question. The same month Canada committed itself to a reduction of emissions within its borders of 50 per cent by 1994.

Early this year the two envoys, Drew Lewis, former U.S. Secretary of Transportation, and William Davis, former Premier of Ontario, recommended that the United States spend \$1 billion a year until 1990, to develop the technology to clean industrial and utility company emissions. The \$5-billion cost would be split between the U.S. government and the owners of the polluting industries and utilities.

When President Reagan formally endorsed the report at the summit meeting, the focus shifted to specific methods to reduce acid emissions.

The key to the report is its emphasis on the need for a practical, cost-effective solution that will enlist the support of the industries, utilities and coal producers.

The Congressional response has been positive. Senate Minority

Leader Robert Byrd, of West Virginia, called the report "right on target" and said it addressed the problem "without imposing costly regulations on industry . . . that may or may not work."

The House of Representatives is considering a control bill that has, for the first time, broad bipartisan and regional support.

Canadian Controls

In 1970 Canada and the United States passed Clean Air Acts, and reduced local air pollution significantly. The acts were not designed to control long-range pollution, however, and tall smokestacks built to clear the local air had the unfortunate side effect of spreading emissions over a wide area. The acid rain problem grew worse.

In the spring of 1984 Canada's federal and provincial governments agreed to cut general emissions of SO₂ in half in ten years, and in 1985 the provinces set specific goals. The program will cut annual SO₂ deposits to no more than eighteen pounds per acre, the most that moderately sensitive aquatic systems can tolerate. It also imposes stringent new limits on automobile emissions of nitrogen oxide and carbon monoxide.

Since more than half the SO₂ pollution that falls on Canada comes from sources in the United States, the Canadian control program will not achieve the planned reductions unless U.S. emissions are also cut significantly. The program is expected to reduce

acid rain deposits by 10 per cent in the Adirondacks and 17 per cent in northern New England.

It allows considerable flexibility in selecting methods to reduce emissions. Federal matching grants of up to \$150 million are available to provinces for smelter modernization and other control technology. The plan is expected to cost a total of (Cdn) \$1 billion to \$1.5 billion.

Canadian Sources

Plants in Quebec and Ontario produce almost 75 per cent of SO₂ emissions in eastern Canada.

Ontario, which had cut its emissions to 2,198 thousand metric tons in 1980, will cut them to 885 kilotons by 1994.

International Nickel, in Sudbury, the largest nickel and copper production facility in the free world, cut emissions by 59 per cent between 1970 and 1980, the greatest single reduction in North America. The new program will cut them to 265 kilotons by 1994.

Ontario Hydro, Canada's largest utility, will cut the annual emissions of its coal-fired plants to 260 kilotons by 1990 and to 175 by 1994.

Quebec's control plan will cut overall SO₂ emissions 45 per cent by 1990. The Noranda Mines copper smelter, the fourth largest in the free world, must reduce its emissions by 40 per cent.

The State of the Corrective Art

Sulfur-dioxide emissions can be

greatly reduced in a variety of ways.

(Before combustion)

The burning of fuels that are low in sulfur is the most direct way to avoid smokestack pollution. Some coals are naturally low in sulfur, some are high. The choice of fuel by utilities and other industrial users is influenced by cost and by employment considerations. Areas producing high-sulfur coal have opposed the passage of laws requiring users to switch from high to low.

Pollution could be reduced by the use of a blend of high- and low-sulfur coals, but this partial solution has not been backed with enthusiasm by groups on either side of the confrontation.

Coal can be crushed and washed to remove sulfur and other impurities and the sulfur content can also be dissolved with chemicals.

Oil with a high sulfur content can be desulfurized by a process adding hydrogen during refining.

(During)

Coal can also be cleansed while being burned. Fluidized bed combustion mixes finely ground limestone with the coal, burning it in suspension. Finely ground limestone can also be injected into special, multi-stage burners.

(After)

Sulfur dioxide can be removed from the flow gas after burning by scrubbing, that is, mixing a chemical absorbent such as lime or limestone with the gas.