

MAIL HANDLING PROJECT: Canada, the United States and Great Britain have inaugurated a long-term research programme to improve machinery and equipment for handling mail, it was announced in the House of Commons November 7 by Postmaster-General William Hamilton.

Representatives of the postal services of the three countries are meeting now in Washington, and will later study mail-sorting methods now used in Canada and in the United Kingdom.

In his announcement, Mr. Hamilton said that the development of modern methods of handling mail has lagged behind similar developments in other fields.

For some time Canada, the U.S. and Britain had been studying the development of new machinery and equipment, particularly in the electronic field, to improve mail sorting and other postal operations.

There had been discussions among the three countries on mail handling problems but no joint review of development work in each country. There also had been no attempt to develop close co-operation in research and development.

Mr. Hamilton said the conference and studies will result in closer co-operation by the three countries in the development of mail-handling equipment. The interchange of ideas would enable each to concentrate on those areas in which it was farthest advanced and to benefit from development in the other countries.

NRU REACTOR IN OPERATION: Atomic Energy of Canada Limited has announced that the NRU reactor has gone into operation at Chalk River Ontario. The start-up culminates six years of intensive effort in design, engineering development and construction. The reactor will be operated at low power for several weeks, during which time a series of test experiments will be carried out. The power will then be increased to the rated capacity of 200,000 kilowatts thermal. This rated capacity is approximately five times as great as the capacity of the NRX reactor which has been in operation for the past ten years.

The NRU reactor is a triple-purpose reactor and this has contributed greatly to the complexity of its design and to its cost. The reactor will provide the research, testing, and experimental facilities required for the development of nuclear power; it will produce plutonium; and it will produce radioactive isotopes.

As a tool for research, engineering development and testing, the NRU reactor will be unsurpassed. Its neutron flux is approximately five times as great as that of the NRX reactor. No other known reactor has such a high density

of neutrons combined with such a large capacity for experiments. This makes possible the testing of any fuel element assembly that is now being considered for nuclear power plants. Because of this, the NRU reactor will be used extensively for carrying out loop experiments similar to those which are now under way in the NRX reactor. Some of the loop experiments in the NRX reactor have been joint projects with the United States Atomic Energy Commission and with the United Kingdom Atomic Authority. These agencies have already asked for testing space in the NRU reactor. Inquiries have also been received from certain other countries.

The NRU reactor will produce substantial quantities of plutonium which will be sold to the United States Atomic Energy Commission. It will also produce a larger supply of the various isotopes - notably Cobalt 60 - which are now being used widely in research, industry and medicine.

The moderator of the reactor and its primary coolant is heavy water; its fuel is natural uranium. This is the reactor technology which Canada has pioneered successfully with the NRX reactor and which offers very good prospects for economic nuclear power. A unique feature of the reactor is the method of changing the fuel elements. Whereas the NRX reactor and other high power research reactors must be shut down to change fuel elements, the NRU reactor can be refuelled without a shutdown. The fuel-element-changing machine weighs 240 tons, about twice the weight of a diesel engine that pulls a Canadian passenger train.

The NRU reactor, which has cost approximately \$57 million, has been designed entirely in Canada and all of its components, with the exception of the heat exchangers, have been supplied by Canadian manufacturers. Over 100 Canadian companies have been employed on the fabrication of components for the reactor.

WHEAT FOR INDIA: Prime Minister Diefenbaker announced that Canada and India have agreed that \$7 million worth of Canadian wheat is to be supplied to India as part of the Canadian Colombo Plan programme for India.

This grant of wheat will be financed out of existing Colombo Plan funds and is designed to meet part of India's pressing needs for food grains. The wheat will be shipped shortly from Eastern Canadian ports.

A similar announcement was made in New Delhi following conversations between Mr. T. Krishnamachari, the Indian Minister of Finance, and Mr. William J. Browne, Minister without Portfolio, who visited New Delhi on his way back to Canada from the annual Colombo Plan Conference in Saigon, at which he led the Canadian Delegation.