

CONSTRUCTION IN CANADA'S CLIMATE

Over 400 representatives of the construction industry in Canada were given an opportunity in October to examine special facilities at the National Research Council of Canada for the development and evaluation of new systems for enclosure design and environmental control.

The representatives — architects, engineers and others involved in construction — took part in a two-day building-science seminar on the design and construction of walls, windows and roofs for the climate in Canada.

The occasion of the seminar was used as an opportunity to display these facilities and associated techniques and to demonstrate their application to research and evaluation. They include:

Large-scale environmental chambers to evaluate the resistance of walls and windows subjected to a range of simulated weather conditions of temperature, rain and wind;

apparatus for determining the heat and moisture transfer properties of insulations and other materials.

equipment for estimating the adequacy of sealed glazing arrangements;

a large calorimeter room for determining the thermal behaviour of window-wall systems exposed to real weather conditions;

instruments and apparatus for determining the thermal and air-leakage characteristics of buildings in use, and;

computer simulation of buildings for estimating energy requirements of buildings and air-leakage potentials and patterns.

These form only part of the facilities and resources of the Division of Building Research that have been developed to serve the technical needs of the construction industry through research and the communication of building science information by means of publications, seminar and consultation with the industry.

The extreme climate in Canada imposes great demands on the exterior of a building in its role as a separation between inside and outside environments; the choice and arrangement of materials and components and prediction and optimization of their performance as a system have been the subject of much study by NRC.

WOOL FABRIC INQUIRY

An inquiry into an allegation by the Canadian Textiles Institute that Canadian textile manufacturers are threatened by imports of certain double-knit and warp-knit fabrics will be undertaken by the Textile and Clothing Board, Dr. C.A. Annis, Chair-

man of the Board, announced recently. The Board proposes to undertake an inquiry and report to the Minister of Industry, Trade and Commerce regarding the effects of imports of these fabrics on Canadian production.

"If it should be found that the goods in question are being imported at such prices, in such quantities and under such conditions as to cause or threaten serious injury to the production in Canada of any textile and clothing goods, and that the plans submitted by Canadian producers are acceptable, the Board proposes to include in its report a recommendation as to whether special measures of protection should be implemented," the Chairman said.

Hearings relating to the inquiry will be held if and as required, and will be in public if the Board decides the nature of the information to be disclosed permits.

Dr. Annis pointed out that any producer claiming to have been injured and requesting special measures of protection will be expected to file a plan describing adjustments he proposes to make in his operations to increase his ability to meet international competition in the Canadian market.

TORONTO'S GIANT CRANE

The Port of Toronto's newest piece of machinery, a container crane worth \$600,000, is now in operation.

The crane has undergone extensive pre-testing operations to ensure efficient handling of all sizes of loaded containers.

As a result of the steadily growing container business since the mid-1960s, the Port placed an order with the Leo Gottwald Company of Dusseldorf, West Germany, in October 1970, for this unique piece of machinery.

At a maximum radius of 82 feet the crane's capacity is 26.4 tons, which allows loaded containers, up to 40 feet in length, to be discharged or loaded on the outer side of the vessel.

The first container crane of its kind in the world, it was specially designed to meet the Port's requirements. It is mounted on a 91-ton mobile carrier and includes tower and boom combination that allows for maximum flexibility in all areas. Thus "turn-around" times of vessels calling at Toronto are substantially reduced.

To supplement the crane's container-handling operation, the Port of Toronto has just recently taken delivery of another first in the Canadian port industry: a \$170,000-mobile overhead-lift truck with a 40-foot spreader frame for transporting loaded 40-foot containers to ship-side for handling by the container crane or away from dockside after discharge.