

### NEW AECL DESIGN UNIT

Atomic Energy of Canada Limited is creating a new engineering-design group in association with its Power Projects establishment in Toronto for the purpose of designing a prototype of an advanced nuclear-power reactor, it was announced recently by J.L. Gray, president of AECL. The reactor is known as the CANDU Boiling Light Water Reactor (CANDU-BLW).

Preliminary studies of a nuclear-power station with a CANDU-BLW reactor have indicated that such a plant may be expected to have lower unit capital costs and lower unit electrical energy costs than those of the Canadian nuclear-power stations now under construction, which have reactors known as CANDU Pressurized Heavy Water Reactors (CANDU-PHW). However, several years of design, development and prototype construction and operation will be necessary before the prospective further reduction in power cost can be proven out. The beginning of development work on the CANDU-BLW reactor is a further stage in long-term planning to keep the Canadian line of nuclear-power stations competitive with other advancing types and with the most modern conventional thermal-power stations.

In the meantime, the CANDU-PHW reactors have been developed to the stage where full-scale plants are available on the commercial market. The economies are such that, particularly in sizes of 500,000 kilowatts electric or more, such as the Pickering station near Toronto, on which construction is commencing this year, they are finding application in competition with conventional thermal-power stations.

### ESSENTIAL DIFFERENCE

Like the CANDU-PHW reactors in the Douglas Point nuclear-power station nearing completion at a site close to Kincardine, Ontario, and in the Pickering generating station, the CANDU-BLW reactor would use natural uranium for fuel and heavy water as the moderating material to enable the uranium to "burn". The essential difference of the CANDU-BLW reactor from the existing line of reactors is the use of ordinary (light) water rather than heavy water in the reactor cooling system. Steam would be generated by boiling this light water within the reactor, thus eliminating the need for steam generators.

The first objectives of the new AECL design group, known as the Prototype Design Engineering Division, are to develop sufficient design for reliable cost estimates, to identify the major technical difficulties and to initiate development programmes in these areas, and to identify major manufacturing problems and, through industrial contracts, to initiate programmes of prototype equipment manufacture.

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### PAINTING AWARD FOR SLADE STUDY

The Leverhulme Canadian Painting Scholarship for 1965 has been awarded to Serge Tousignant, 23, of the Ecole des Beaux Arts, Montreal. The scholarship offers a year's post-graduate study at the Slade

School of Fine Art of the University of London, England, air travel to London and return, and a grant of \$1,500 for living expenses. This is the fourth year of this annual award to an outstanding young Canadian painter.

Mr. William Townsend of the Slade School, which was responsible for setting up the Leverhulme Scholarship, selected the winner from candidates nominated by art schools across Canada. He reports that the standard of entries was very high, and that among the candidates were three artists whose work has been selected for the Sixth Biennial of Canadian Painting, one of whom is Serge Tousignant. Mr. Townsend acted as the one-man jury for the Sixth Biennial, which will open June 4 at the National Gallery of Canada.

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### ROYAL COLONEL FOR NEW UNIT

Princess Margaret has consented to become colonel-in-chief of Canada's newly-formed Highland Fusiliers of Canada. The regiment, whose headquarters will be in Galt, Ontario, was created by the amalgamation of two of Ontario's distinguished Highland regiments in the reorganization of Canada's Militia in 1964.

The Princess formerly held the appointment of colonel-in-chief of the Highland Light Infantry of Canada, Galt, before its amalgamation with the Scots Fusiliers of Canada, Kitchener, Ontario. She also holds a similar appointment for The Princess Louise Fusiliers, a Halifax Militia unit.

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### TOP HARBOUR OFFICER TO EUROPE

On May 15, the Chairman of the National Harbours Board, Mr. Howard A. Mann, began a visit to European port and commercial centres that will end on June 9. Mr. Mann's trip to the European business area followed his attendance at the 1965 conference of the International Association of Ports and Harbours, where he delivered a technical paper on port administration. The NHB Chairman is a Director of the IAPH and a member of its Executive Committee.

During his European tour, Mr. Mann will meet leaders in shipping, industry and government in Britain, France, Belgium, Holland, Germany, Sweden and Norway. His plans, which are being co-ordinated by the Canadian Trade Commissioner Service, call for a series of addresses to groups interested in trading with Canada, and will provide an opportunity of acquainting these groups with new developments at NHB ports.

Mr. Mann's European visit is part of a continuing programme aimed at keeping overseas attention focused on the ports administered by the National Harbours Board. It follows previous calls made on foreign port users by officers from head office and individual harbours. Other elements of the port-promotion programme are the publication of news bulletins, exhibits at international trade fairs and advertisements in shipping magazines.

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