Mr. Charles M. Drury, President of the Treasury Board.

Mr. Jean Chrétien, Indian and Northern Affairs.

Mr. Donald S. Macdonald, Energy, Mines and Resources.

Senator Paul Martin, Government Leader in the Senate.

Mr. Jack Davis, Environment.

Mr. Jean-Eudes Dubé, Public Works.

Mr. Ronald S. Basford, Minister of State for Urban Affairs.

Mr. Otto Lang, Justice Minister and Attorney-General, with responsibility for the Canadian Wheat Board.

CUT PHOSPHATE, WASH WHITER

In most households, a good clean wash can be turned out with a detergent containing little or no phosphate. Some fabrics, in fact, emerge whiter when washed with completely non-phosphatic detergent.

These cheering facts are drawn from a report released on October 16 by the Canada Centre for Inland Waters at Burlington, Ontario, which covers a study undertaken by the Ontario Research Foundation (ORF) under a contract with the Government of Canada. The study evaluated the effectiveness of several detergents when used with various waters ranging from soft to very hard.

The ORF findings are particularly relevant right now because by January 1, 1973, manufacturers must reduce the phosphate-content of laundry detergents to a maximum of 5 per cent expressed as phosphorous pentoxide. A level of 20 per cent has been in effect since August 1970. This reduction is required by a new federal regulation designed to reduce deterioration of Canadian's lakes.

NATURE OF TESTS

Six types of fabric were used in actual washing tests with water of four hardness levels – 80, 135, 330 and 550 parts in a million – expressed as calcium carbonate. More than 65 per cent of Canadians use water below the 135 parts per million level of hardness and 85 per cent uses water below 330 parts per million. Water above the hardness level of 330 parts per million is used by only 15 per cent of the population.

A standard detergent formulation based on requirements of the Canadian Government Specification Board was used throughout the study. Within this general formulation, the concentration of phosphate, nitrilotriacetic acid (NTA) or citrate was varied at different levels of water-hardness to investigate the relative cleansing efficiencies, which were rated by the whiteness of the finished laundry.

At the two lower levels of water-hardness investigated (80 and 135 parts per million) the presence of phosphate in excess of 5 per cent in detergent formulations actually lowered their cleaning efficiency when used with dacron and blends of dacron and cotton. Citrates and NTA in concentrations higher than 15 per cent improved the laundering efficiency of detergents with the same fabrics.

At the higher levels of water-hardness (330 and 550 parts in a million) wash-water should be pre-softened with soda or other additives. In the absence of these softeners, phosphates are more effective than NTA or citrates but at least 15 percent phosphate is needed.

The report says that NTA or phosphate, provided at least 15 per cent is present, are markedly more effective than citrate in cleaning pure cotton fabrics, which represent a small and dwindling percentage of the household wash.

Citrate-based detergents proved to be as effective as NTA and phosphate for dacron fabrics with softer water.

Combination formulations involving 5 percent phosphate, citrate and NTA gave very effective results over a wide range of water-hardness.

ONTARIO MANUFACTURERS' SUCCESS

Over the next two years, Ontario manufacturers expect to gain new business worth $38 million as a direct result of contacts and negotiations generated at the recent Manufacturing Opportunities Show in Toronto in October.

Import replacements of parts and components account for $17 million; new products to be manufactured under licensing and joint-venture agreements, $14 million; some $1 million of sub-contract orders, and the balance made up of estimated capital investments required for additional production facilities.

A Swiss company is negotiating with three Ontario firms a licensing arrangement and two joint ventures, involving $3 million.

A German firm is negotiating with two companies to build a manufacturing plant in Ontario under a joint venture arrangement.

More than 30 Ontario firms are interested in a licensing arrangement with an Australian concern to make and sell a stainless steel silencer with an annual production potential of $5 million in Ontario.

Tool manufacturers offered many licensing opportunities to an Ontario inventor for his unique "angle-vise".

The Ontario inventor of a patented process in the construction field is in licensing negotiations not only with Canadian companies but with principals in the United States and Japan.

Some 60 industrial visitors found interest in a "coiffeur guard" devised and patented by one of several lady inventors at the show.

Success also went to Xerox of Canada, which will be placing orders locally for business machine components totalling $75,000 immediately, and another $200,000 within a year.