

The original intention of the aforesaid proviso was to ensure adequate availability of CW weapons to Canada in the event of an invasion of this continent, with particular emphasis to the possible forms and scales of attack then contemplated on the Pacific Coast, vis-a-vis Japan.

With the serious uncertainty then prevailing in the Allied shipping situation, it was considered that Canada could not readily depend on replenishment of Canadian supplies from the United Kingdom, if we undertook to send Canadian CW weapons and agents overseas.

The situation has, of course, completely changed during the intervening 23 months both as regards the military initiative of Japan, and also the shipping situation.

The facilities which Canada has to offer include especially:

- (a) The "HT" Mustard Plant at Cornwall, Ont. This is the only producer of Thiodiglycol Mustard on the North American Continent. This type of mustard has superior properties, ballistic and stability, to any other available in the USA.
- (b) The CW Weapon Filling Plant at Cornwall, Ont.
- (c) The special storage tanks which have been completed at Suffield, Alta., and Cornwall, Ont., with total capacity for 4,500 short tons.
- (d) The plants, located at Quebec and Ottawa, concerned with assembly and testing of respirator components.

The capacity, in each of the foregoing, far exceeds immediate Cdn Service requirements in the North American Area, as they were built up during the period of peak emergency and deficiency. It is considered probable, however, that if CW were to be initiated, all of these facilities would be fully operated for Cdn or Allied account, in view of the heavy wastage contemplated in initial equipment.

Although no large immediate demand, except possibly from the United States for HT Mustard, is contemplated, and stocks are considered reasonably adequate for CW material generally in both United Kingdom and United States, it is well to point out that the estimated combined reserves of Germany and Japan; in chlorine equivalent, probably exceeds the combined present supply of the British Empire and the United States by as much as 50,000 tons.

In these circumstances, it is considered that Canada's production and storage reserves do represent a valuable actual and potential addition to those of the principal United Nations.

(4) Continued maintenance by the Cdn Government, during the state of war, of at least pilot plant stage in the present manufacturing and inspection facilities, for all important chemical warfare equipment which is not normally available from commercial sources, including existing mustard production, associated weapon charging and storage facilities.

Comments: The time factor in restoring production, if such pilot plant stage is not maintained, is a serious one, involving a year at least and much longer in certain instances. Present Cdn Service stocks of CW equipment are conditioned upon pilot plant maintenance, and would need to be substantially augmented if the plants and expert staffs were disposed of.

There are certain items which are available from commercial sources, and no action is contemplated on these.

Under recommendation No.(7) below, it is considered that the proposed study of post-war requirements should include that of minimum nucleus capacity for inspection and production, of essential CW equipment.

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