With this negative evidence in hand, Mr. Speaker, we urged the soft-drink industry to remove the narrow-necked bottles from the marketplace, indicating that if voluntary removal did not occur, the department would proceed with regulatory action. Total co-operation was not forthcoming, so consumer and corporate affairs developed a safety standard for all 1.5 litre carbonated soft drink bottles, wide necked as well as narrowed-necked designs.

● (1720)

The standard, based on the best data available at the time, was established under the Hazardous Products Act. It required that glass containers of a capacity of 1.5 litres or larger containing carbonated soft drink pass a tip test. The test for compliance involved tipping the bottles over with a standard measures velocity on to a vinyl-covered concrete surface after they had been allowed to stand unopened and unagitated for two hours at a temperature of 22 degrees Celsius. These conditions simulate events which might occur in a house, apartment or store. Bottles were declared non-complying if randomly selected samples broke and projected flying glass through a four-sided, light-gauge, aluminum foil shield suspended in the test area. In these circumstances their importation, advertising and sale was forbidden.

At the time the standard was established, consumers were urged to return any empty 1.5 litre carbonated soft drink bottles in their possession to local stores in order to facilitate the process of modifying the bottles to provide for compliance with regulatory requirements. At the same time the minister again sought the full co-operation of the industry in clearing the marketplace of the 1.5 litre bottle as rapidly as possible. The response left something to be desired.

But, Mr. Speaker, it soon became obvious that the standard did not ensure complete protection from injury from flying glass under all conditions. A particular bottle design might pass the tip test on one occasion where new bottles were used, and fail it on another where recycled, structurally weakened bottles were used. In effect, the tip test does not fully measure the degree to which bottles become weakened and are made potentially dangerous due to abuse in the recycling process. And because bottles make up to 25 trips there is a long-term risk of physical injury to consumers. Also, 1.5 litre carbonated soft drink bottles have spontaneously exploded on several occasions, and spontaneous explosion, Mr. Speaker, is something that is impossible to control by selective regulation. The control on returnable refillable bottles is not always adequate, as may be seen from their condition on a visit to soft drink displays in major supermarkets.

Because of this shortcoming in the tip test, the minister had no choice but to take more drastic action in order to protect consumers from injury from flying glass, and on August 28, introduced an absolute ban on the importation, advertising and sale of all 1.5 litre carbonated soft drink bottles. Because this outright ban on the importation, advertisement and sale of 1.5 litre carbonated soft drink bottles is viewed by some as a heavy-handed step with potentially severe economic consequences for the soft-drink industry, it is important that I stress the safety hazard that has been virtually eliminated pending development of adequate preventive measures.

A 1.5 litre bottle full of soft drink weighs approximately eight pounds, and this weight, coupled with an awkward bottle shape, makes it susceptible to droppage, especially by children or others with small hands. The situation becomes particularly hazardous if the bottle is being removed from the refrigerator and the surface is slippery with moisture due to condensation. On top of that, the height of the bottles relative to their diameter makes them extremely easy to topple—again, a particularly hazardous situation when young children are involved.

During the tests conducted by the product safety branch, shards of glass from exploding bottles penetrated the flesh of a chicken carcass and shredded aluminum foil shields. It does not take much imagination to visualize the effect those shards would have on human flesh, particularly the eye.

Finally on this point, I want to say that in the development of 1.5 litre carbonated soft drink bottles, economic necessity was the mother of invention. The cumbersome design of the narrow-neck bottle allowed bottlers to use existing bottling and washing equipment, and thus save a considerable amount of capital expenditure. Economic considerations may have been the reason for their birth, but consideration for the lives and safety of human beings is the reason for their demise in their present form.

Given that the importation, advertising and sale of 1.5 litre carbonated soft drink bottles in their present form is forbidden under the Hazardous Products Act, soft drink manufacturers are now turning their efforts to the development of a safe container, one that does not spontaneously explode or project flying glass when tipped or dropped.

I do not presume to know the specific design that would be acceptable to the government, but it would probably involve some sort of plastic encapsulation technique for the glass bottle. I understand that a plastic coating on bottles would prevent explosive fragmentation under all the conditions I have just cited and would minimize the possibility of injury should any breakage occur. Unfortunately, officials from both government and industry inform me that time will be required to introduce equipment for the large volume application of coatings. It might also be noted that it is anticipated that such coatings will have the further advantage of extending the useful life of the bottles.

Another possible solution to the problem is the use of plastic bottles. But here arrangements would have to be made with the provinces which are concerned with solid waste disposal and littering problems associated with these designs. If plastic bottles were deemed acceptable, some sort of deposit scheme might have to be introduced to ensure the return of bottles for destruction to avoid ecological problems.

In conjunction with the development of an acceptable alternative to the all-glass 1.5 litre carbonated soft drink bottle, there must be the development of an adequate safety test to