cent. About 70 per cent of these devices use active carbon filters, about which the Department has some reservations because of the problem of bacterial growth on the filters. We may also point out that other treatment devices, such as those based on reverse osmosis and distillation, also have their drawbacks.

Most small communities and homes in Canada's rural areas use ground water as their source of water supply. Generally speaking, it is assumed that this water is free from contaminants and requires only minimal treatment before consumption. However, this assumption may no longer be correct since organic compounds such as pesticides and industrial solvents have been discovered in ground water in most states in the United States. We have only spotty information on Canadian ground water, but we do know there are problems in some communities such as Joliette and St-Hyacinthe, in the province of Québec, where drinking water has been contaminated by the pesticides aldicarb and atrazine, respectively.

It is now known that some compounds generated in drinking water during treatment may also present health hazards. One of the most widely used treatment chemicals is chlorine which is used as a disinfectant. Some concern has been expressed that chlorination can give rise to the formation of chlorofom and other chlorinated by-products, some of which can be toxic under certain conditions.

Mr. Speaker, a look at alternative disinfectants suggests, however, that the well-proven chlorination process should not be abandoned yet since there is very limited knowledge about the alternatives. Ozone is becoming increasingly popular in Canada, particularly in Québec. Ozonation reaction products are still relatively unknown, but are being studied by scientists in the Department of National Health and Welfare. A wide-ranging study that will cost about $1 million, financed jointly by the Government of Québec, the Department of National Health and Welfare, the Department of the Environment and the federal Department of Supply and Services, is presently underway on the water distribution system in the municipality of Sainte-Rose, near Montreal.

Chlorine dioxide does not give rise to the undesirable by-products formed during the normal chlorination process. However, a major disadvantage is the production of chlorate and chlorite which may be of health significance when ingested regularly at high concentrations. That is why the Department of National Health and Welfare, in co-operation with the province of Alberta, recently sponsored a study to evaluate various disinfectants used in the treatment of drinking water. The Department of National Health and Welfare and the Ontario Department of the Environment also sponsored a study co-ordinated by the Canadian Public Health Association, which included a critical study of the quality of water from the Great Lakes.

The Department of National Health and Welfare has also helped the Province of Ontario as a consultant on contract work concerning the effectiveness of activated charcoal treatment in a Niagara Falls pilot plant. The Department of National Health and Welfare is also cooperating with Environment Canada and the four Atlantic provinces on a major four-year study to determine the extent of contamination of municipal water distribution systems by organic substances. This study is now in its fourth year.

It is clear from what I have just said that the Department of National Health and Welfare is doing research on drinking water in every region of the country and that a large part of the work sponsored by the Department alone or with the provinces is contracted out to industry or the academic community.

Perhaps we should ask exactly what we should do to make our drinking water safe. Of course, the water quality guidelines or standards implicitly define what is acceptable for health.

"The recommendations for the quality of drinking water in Canada, 1987" are used to determine if water under federal authority is fit for consumption. They are updated almost every year and have been adopted by several provinces which have included them in their own quality objectives. Alberta, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland use these federal-provincial recommendations.

• (1930)

[*English*]

The Acting Speaker (Mr. Paproski): The Hon. Member's time has expired.

Mr. George S. Baker (Gander—Grand Falls): Mr. Speaker, I just have a few words on this very important Bill before the House today that deals with the quality of drinking water in Canada. The reason why it is so important is that too many communities—hundreds of