As a result, Canadian scientists have gained first-hand experience in the study of radiation effects and the development of adequate safeguards against them. On March 14 of this year, a reply was tabled which outlined some of the activities carried out by the Department for the safe handling of radioactive materials.

The interest of the Department in radiation, however, pre-dates these more recent developments by several years. For example since 1951 the Department has accepted responsibility for the supervision of the use of radioactive isotopes in university and hospital laboratories and in industrial operations.

In carrying out this responsibility, a film monitoring service is maintained for the protection of persons working with radioactive isotopes. Advice is also provided during the planning stages of radio-isotope laboratories in order that arrangements can be worked out for the safe handling of radioactive materials and for the disposal of radioactive waste in such a manner that there will be no danger of contamination. In addition, it is planned to provide training courses emphasizing the safe use of radiation.

Anticipating an increasing use in this country of radioactive materials for industrial and medical purposes, arrangements were made some time ago to send a senior physicist of the Department to the United Kingdom for special training.

There is at all times continuing consultation between the Department of National Health and Welfare and other government agencies such as the National Research Council, the Defence Research Board, and Atomic Energy of Canada Limited, having an interest in this field.

As a result of all this joint effort, there is every reason to believe that the measures taken in this country for the protection of those persons who are likely to be exposed to radioactive materials are fully as effective as those carried out anywhere.

(2) Is any research being done in respect to radiation effects in Canada resulting from atom bomb tests that have taken place in the United States of America?

Yes. This research is carried out, not with particular reference to experiments being undertaken in any one country, but with reference to the effects of radiation, from whatever source it may come.

(3) Do researchers know anything about the genetic effects on humans of such radiation?

Yes.

The biological effects of increased radiation may be divided into two categories -- the somatic effects, or those which lead to disease in the exposed individual; and the genetic effects, or those which cause changes usually adverse, in his descendants. Any somatic effects which might arise would affect only the generation irradiated but genetic effects would show up in future generations.