Civil Service Health Counselling.—Health counselling is offered through major Medical Services units to federal employees throughout the country. This service is primarily diagnostic and advisory only but emergency treatment can also be given. The Civil Service Health Counselling Division also examines civilian aviation personnel and advises on standards of physical fitness required for them.

Aerospace Medicine.—Research on civil aerospace medicine is conducted by the Department in close liaison with the National Research Council, the Defence Research Board and the Royal Canadian Air Force Institute of Aviation Medicine.

Regulation of Hygienic Standards.—The Department of National Health and Welfare is responsible for regulating hygienic standards on federal property.

Subsection 6.—Radiation Protection

A comprehensive radiation protection program has been developed in Canada in response to the rapidly increasing use of radioactive materials, X-ray equipment and nuclear reactors in medicine, industry and research, and to increasing concern about radiation from atmospheric testing of nuclear weapons, from medical X-ray procedures and from natural sources.

Because of technical complexity in this new field and the early necessity of imposing national controls over dealings with uranium and by-product materials, the Federal Government has developed health and safety control procedures for the handling and use of all radioactive materials. This program is implemented through the close collaboration of federal and provincial health departments supported by special advisory committees.

Acting under the federal Atomic Energy Control Regulations, the Department of National Health and Welfare reviews all applications received for radioisotope licences and recommends appropriate health and safety conditions. The Department also provides services for measuring and recording the personal radiation exposures of workers handling X-ray, gamma-ray and neutron sources. Inspection of licensed establishments is carried out by federal or provincial inspection officers. Although there is no federal regulatory authority to provide health and safety supervision over the use of X-rays, the Department of National Health and Welfare has established a committee on the development of X-ray safety standards to recommend uniform standards and procedures throughout Canada. Five provinces (Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta) have already enacted specific enabling legislation applicable to X-rays, and two (Nova Scotia and Saskatchewan) have issued regulations requiring registration of operators and/or equipment. The Department's personnel-radiation-monitoring service is available to X-ray workers and its reports are available to the appropriate provincial departments of health.

As a supplement to its monitoring and inspection activities, the Department of National Health and Welfare provides short-term training courses in radiation protection for those persons assigned local responsibility for day-to-day operations.

Special attention is given to the health and safety problems associated with the siting, design, construction and operation of nuclear reactors and charged-particle accelerators. Committees of the Atomic Energy Control Board, including federal and provincial representatives, review these matters.

A comprehensive nation-wide monitoring program has been developed to assess the exposure of the public to radiation from radioactive fallout from nuclear-weapons testing. The Department is assisted in the systematic collection of samples of air, precipitation, soil, wheat, milk and human bone by the Departments of Transport and Agriculture and pathologists in hospitals throughout Canada. Monthly reports of the concentration of such fallout components as strontium-90 and cesium-137 in these samples are published. Because of a unique food-chain cycle in the Far North, a special study of cesium-137 in the North has been added to the nation-wide program. Direct measurements of cesium-137 levels in living persons are made with a high-sensitivity detection system known as a