

of air and precipitation sampling and analysis for radioactive fall-out. A network of 24 sampling stations provides the Department of National Health and Welfare with: (a) 24 hour air filter samples, daily; (b) accumulated rainfall and snowfall samples, monthly. These samples are analysed for total fall-out activity and the precipitation samples are further analyzed for strontium 89, strontium 90 and caesium 137. Results are published monthly in Data from Radiation Protection Programs (a copy of the latest issue of which was tabled in the house on May 20). Fall-out levels at any station or any part of the country are governed by nuclear weapons testing programs and by meteorological conditions, they are not known to contribute to air pollution in the sense that motor cars and industrial and commercial enterprises do.

2. (a) Methods of control for motor vehicles. Intensive studies on various control systems have been under way in the United States by the public health service, the state of California, the automobile manufacturers association in Detroit and other organizations for some years. These systems include the design of new engine processes, improved carburetor design and catalytic or flame combustion of exhaust gas by means of an after-burner. The state of California has established performance requirements for the control of contaminants in exhaust of motor vehicles but no system has been approved for installation as yet. The Department of National Health and Welfare is keeping abreast of such developments.

A partial palliative has been found in the installation of a crankcase control device to prevent air pollution from engine blowby gas. This device is now manufactured for installation in the United States.

(b) Control methods for industrial and commercial enterprises. Remedial measures and control systems have been designed for the collection of dusts or mists and the absorption of many gaseous contaminants. Solid or liquid particulates may be removed from stack gases by electrostatic precipitation, venturi or other scrubbers, cyclone collectors, fibrous filters or sonic agglomeration. Sulphur dioxide from smelting and sintering operations may be converted to sulphuric acid and phosphate fertilizers. Fluorides may be removed by wet scrubbers. Odorous compounds and solvent vapours may be burned by catalytic combustion or removed by activated carbon. In some cases the recovered products can be returned to the process or converted economically to valuable by-products. However research is being conducted in many countries on the development of processes for the removal of sulphur dioxide,

Questions

oxides of nitrogen and other contaminants occurring in low concentrations in flue gases, especially those from thermal power plants. The Department of National Health and Welfare is being kept informed regarding such developments.

(c) Control of nuclear fall-out in air can be effected by termination of atmospheric nuclear weapons testing.

3. The air pollution program was initiated in 1956 within the occupational health division of the Department of National Health and Welfare and has cost about \$400,000 since that time. The program is closely integrated with air pollution control activities of provincial health departments.

The radioactive fall-out study program was initiated in 1959 within the radiation protection division of the Department of National Health and Welfare and has cost approximately \$100,000 since that time.

FIREFIGHTING EQUIPMENT AT NORTHERN AIRPORTS

Question No. 1,093—Mr. Rhéaume:

1. Is the firefighting equipment now available at each of the following airports adequate to meet safety requirements (a) Fort Smith (b) Yellowknife (c) Inuvik and, if not, what additional equipment is required at each of the above locations to bring them up to minimum standards?
2. What plans, if any, have been made to obtain this equipment and make it available?

Mr. Pickersgill: 1. (a) Fort Smith, adequacy has been under review due to recent increases in air traffic. (b) Yellowknife, yes; (c) Inuvik, yes.

2. A new 400 gallon foam crash truck is being purchased in 1964-65 for Fort Smith.

LEUKEMIA—VALIDITY OF CURE CLAIM

Question No. 1,100—Mr. Monteith:

As certain news reports may have raised false hopes in those suffering from leukemia would the Minister of National Health and Welfare issue a press release giving the department's views concerning the validity or otherwise of any possible cure for this dreadful disease which appears to have been claimed by a Mr. Naessens now visiting Canada?

Miss LaMarsh: The Department of National Health and Welfare is watching this situation very carefully and if and when it seems desirable to issue a statement on the subject the minister would consider doing so.

REVENUE AND OPERATING COSTS OF FARMERS

Question No. 1,117—Mr. Latulippe:

1. What was the total gross revenue of Canadian farmers in the years 1960, 1961, 1962 and 1963?
2. What was the total net revenue of Canadian farmers in the years 1960, 1961, 1962 and 1963?
3. What were the total operating costs incurred by Canadian farmers in the years 1960, 1961, 1962 and 1963?