Members learned new facts about atomic waste disposal

Christine Reaburn

Did you know that you are naturally radioactive? Radiation is a natural part of life. It has existed since time began — after all, the sun is a nuclear reactor. Children sitting eight feet away from a color TV receive 1 unit per year. When coal is burned, the residue released into the air, without scrubbers, is radioactive acid rain. Because earthen materials contain natural radiation, if you live in a brick or stone house you receive seven millirem per year. The basement which is usually masonry will give a higher reading on the Geiger counter than the attic which is wood and therefore non-radioactive. Those who smoke a pack of cigarettes a day for a year will receive 8,000 millirems of radiation.

These are just some of the points made by Frank Finley, Head of the Information Centre at Atomic Energy of Canada Limited's Chalk River plant, at a workshop held in Perth on April 10. This workshop on nuclear energy and the disposal of nuclear wastes was organized by FWIO Board Directors for the Eastern Region.

Participants at the day long session not only heard the positive side of nuclear energy but also put searching questions to Mr. Finley. Some ladies were not convinced that nuclear energy was as safe as the industry made out and urged all those present to research the question fully and to read what the opponents had to say.

Mr. Finley extolled the excellence of Canadian technology. Canada was the first country to develop a reactor that could change fuel while the power remains on. Cancer therapy machines were developed in Canada (the Japanese are now competing in this field) and 65 per cent of radioactive cobalt used for medicine comes from Ontario. Did you know that 3 oz. of cobalt used for therapy costs $30,000?

Food irradiation is being used by Israel, Japan, Holland and the U.S., but Mr. Finley felt it would be many years before it was used in Canada. In this country we have a good food distribution system, however for Third World countries, irradiation could prove to be a valuable tool in stopping food spoilage. (If potatoes and onions are irradiated it stops them from sprouting.) Irradiation is not suitable for milk, however, in Holland they irradiate the containers and find the milk keeps longer.

In Ontario, nuclear energy supplies 36 per cent of our energy needs — every third light bulb is powered by nuclear energy. In comparison 97 per cent of energy needs in Quebec are supplied by water. La belle province has an abundance of water, however in Ontario the need for energy far outweighs what water power could provide.

Mr. Finley's message was that we should put radiation into perspective and that all ventures in life have some form of risk.

The afternoon session dealt with the disposal of nuclear waste and the technological spin-offs from this research. Jo Hillier, Public Affairs Officer of Whiteshell Nuclear Research Establishment at Pinawa, Manitoba for the past eight years, has the job of promoting research on the Nuclear Waste Management Program through publications and films. Mrs. Hillier is concerned about the safe disposal of waste of all kinds.

The study of nuclear waste disposal started in the 1950's before a commercial reactor was built. Currently storage of used fuel in the free world is in holding tanks of water, 12 feet deep. The Canadian Shield is being carefully studied in conjunction with the Geological Society of Canada as a possible location for the storage of nuclear waste. The concept would be to put the used fuel in containers, and to put these containers one mile down in stable granite formations. Each site would be able to store 50 years' waste and the latest computer predictions are that it would be 10,000 years before anything from the waste could reach the surface. If the underground concept works out, then toxic chemicals and arsenic could also be buried using the same technology. Nuclear waste is smaller in volume compared to that of toxic chemicals.

There are spin-offs from all this research, such as tools for the mining industry. Also being researched at Whiteshell is the effect of irradiation on vitamins. Another aid from irradiation is the sterilizing of medical equipment.

One questionner was concerned about the exposure of radiation of a miner in Elliott Lake. Mrs. Hillier felt a farmer in Saskatchewan who had potash under his land would probably get more radiation than a miner in Elliott Lake.

Whether God made or man-made, radiation has the same effect, so the industry is working to ensure that nuclear waste is not added to natural radiation.

Mrs. Hillier urged the ladies to organize workshops within their respective districts to discuss this ongoing question of nuclear energy and its waste disposal. She also suggested they have a spokesman from the anti-nuclear lobby so that a well-balanced program can be presented.

Christine Reaburn is public relations officer of Eastern Ontario Area Women's Institute, third vice-president of North Renfrew District and member of Westmeath Branch.

Workshop failed . . .

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There were two members from subdivision 1, none from subdivision 2 and a better number from 3, 4 and 5, so in my opinion this workshop failed. This may not be your business, but I don't know who else to write to and it does concern leadership.

Ruth Fourney
Glengarry District PRO

Editor's note: a complete report of the workshop appears on this page.