

Private Members' Business

• (1855)

The line between pure and applied science is very hard to draw. That is why privatization although necessary and desirable will be difficult. An entirely new company of researchers will have to be formed to sell their services to the people who have the reactors. That is going on now to some extent. They take in \$86 million a year in fees for the work that is done at Chalk River on behalf of reactor owners. Eventually they will have to become self-sufficient and I do not think it will happen until it is privatized.

With all the pure science going on out there it is not going to be an easy sell. However we do not just kill the flagship of Canadian R and D. Let us remember the Avro Arrow, because this is the sort of thing we are talking about. Clause 4 would preclude provision to any person, any professional, scientific technical information or assistance that relates to research investigation, design, testing, construction, manufacture, operation, use, application or licensing of any thing or property of any nature that would be used in or for a nuclear reactor. In plain English, it would make orphans of the Candu reactors that provide almost half of Ontario's electricity.

The work being done at AECL that is not pure science is bankrolled by the utilities. As I have mentioned they spend about \$86 million a year on it. It is to enhance plant safety, prolong operational lives and cut maintenance costs. If we want to remain in the forefront of an industry we have to do R and D and we have to do it continuously.

They are doing work out there now on the applications of computer technology to the construction and operation of plants, improving reactor fuel channels, better fuel design and so on. Bill C-285 would stop this cold.

Clause 5 says that the act does not apply to a nuclear reactor that has as its sole purpose the manufacture or development of isotopes for medical use. The hon. member for Kamloops should know that this function of AECL has already been privatized. Nordion was sold for \$165 million. Incidentally the government of the day pocketed the funds into general revenue and did not leave a penny for the operations.

During his long harangue about the technical side of nuclear energy the hon. member for Kamloops reflected the anti-industrial primitivism that is so common among a small segment of his party, the people we refer to as the nuts and berries crowd.

We live in a climate of irrational fear of the atom because most people do not understand it. They do not have a vague notion of how a reactor works. Polls indicate that 10 per cent of the public actually believes that a reactor can explode like an atomic bomb. Vast numbers who at least know better than that believe a nuclear plant constantly emits streams of deadly

radiation that will induce cancer, make them sterile or cause them to conceive defective children.

A few highly visible crusaders have seized upon the fears as a convenient means of attacking a social order that they find distasteful and have found highly successful careers as virtual cult leaders. When primitive man was troubled by fears of the unknown, he consulted the witch doctor or the shaman. Sophisticated modern man appeals to Amory Lovins, Ralph Nader or Barry Commoner.

The hon. member was engaging in a little shameless sophistry when talked about 4 per cent of the energy uses of Canada coming from nuclear. For God's sake that includes the use of fuel in cars. There are not very many nuclear cars. What it does produce is 20 per cent of the electrical energy that is used in the country and, as has been stated two or three times, nearly 50 per cent of Ontario's electrical energy. We used to have a bumper sticker out west that said: "Let those eastern bastards freeze in the dark". Apparently this is what the hon. member for Kamloops is suggesting we do again.

• (1900)

He mentioned the decommissioning cost of \$13 billion. That is not bad for an industry that produces \$4 billion worth of electricity annually over a period of probably 30 years of operational life for a plant. Remember, that \$13 billion is not just for one reactor, that is for the whole shooting match. At least that is a number which both the pro and the anti-nukes agree on.

There has been a lot of talk about the waste. It is an insoluble problem. It will be with us forever. The nuclear priesthood will have to guard it. I am reminded of a quote from Goethe that the phrases men repeat incessantly end by becoming convictions and ossify the organs of intelligence.

If Canada went 100 per cent nuclear for its electricity each family share of spent fuel, or high level waste if you prefer that term, would be seven ounces a year. This stuff is put into the swimming pools at the plants. As somebody said, there are 21,000 tonnes of it around now. Within 10 years the radioactivity is reduced by 90 per cent. Within 1,000 years in dead storage the radioactive levels would be sufficiently reduced to make it perfectly safe to eat a few spoonfuls of the stuff.

You get these anti-technological myths about plutonium, because there is plutonium in the waste. It is the deadliest thing known to man. It is evil. God did not create it. That is garbage. That stuff is an alpha emitter, for openers. You could wrap it in a piece of tissue paper, put it in your pant's pocket and walk around with it with impunity because it emits no gamma radiation and no beta radiation. It is not dangerous. If you were to eat a bunch of it, it is 50 times less poisonous than ordinary arsenic trioxide. Mr. Speaker, you can look that up in any good journal of toxicology.