

Supply—Mines and Technical Surveys

While this work is indeed important in order to make these companies in the years ahead more economic and competitive with uranium producers in other countries, I feel we are nevertheless interested in Canada—there has been some indication of this in the evidence given before the research committee of the house—that further stimulus should be given to research into finding completely different uses of uranium itself.

In the last paragraph on page 44 of the annual report of the department for 1959 there is a reference to the liaison between the mines branch of the department and the uranium industry, largely through the Canadian uranium producers metallurgical committee, as it is called, and also with the representatives of Eldorado Mining and Refining Limited.

Conventional procedures of uranium recovery and their study by the mines branch are indeed important, but Dr. John Convey, the director of this branch, has pointed out on various occasions that additional personnel could be used by this branch for a study of alternative uses of uranium. Such a study could take place in various fields, and more technical experts are urgently needed to carry out this work.

We gather that perhaps half a dozen individuals are at present working in the mines branch in co-operation with Chalk river and Atomic Energy of Canada in the development of reactor materials, for instance. This is one field. It has been pointed out in the past that various officials and members of the mines branch have worked in the field of uranium and radioactivity in developing methods of safely handling radioactive materials. There are possibly some 18 people in this group at present in the mines branch.

Nevertheless there does appear to be a lack of assistance, whether it be in terms of finance, or availability of personnel, for looking into other uses of uranium, and the government should examine this in detail. There have been indications of many useful fields here. There is the combining of uranium with such elements as sulphur, carbon, hydrogen and nitrogen present in steel, which can then impart to steel qualities of strength and wearing ability which are most useful.

This has been called the scavenging use or activity of uranium in steel and it is one which has been coming to the fore very much in recent months and years. This was tried some 30 or more years ago, I understand, by our mines branch; I refer to the addition of uranium to iron and steel. But I would think much further work could now be done in this area in co-operation with private companies in the steel industry across Canada. The qualities of steel, its fatigue strength and

other such properties, could very possibly be improved. If it came about that an appreciable percentage of our steel production in Canada could incorporate one, two or more pounds of uranium per ton it could go a definite distance toward solving some of the problems of our uranium mining production and would provide employment in various areas of Canada.

The use of uranium in alloy steels for withstanding high pressure and high temperature in jet engines, and in various types of pipe, have been pointed out and could be examined in considerably greater detail. In addition, I imagine the mines branch is examining the addition of uranium to non-ferrous metals, and presumably additional personnel could be used here. More basic research should be done, and co-operative work extended testing uranium for catalytic work, shielding, underplating, and so on.

In sum total, Mr. Chairman, while we have seen in Canada in recent months a definite increase in activity in solving our problems in the uranium industry through the creation of such bodies as the Canadian uranium research foundation, and the Canadian nuclear association just a week or so ago, I do feel that our government can assist, through the mines branch and through its able director, Dr. Convey, in placing additional personnel and additional funds, perhaps as research grants to universities across Canada or directly in the branch itself, into the solving of this problem of uranium costs, and second, alternative uses of this mineral in the very wide field of possible applications which now lie before us. Uranium mines and the people they employ are a vital sector of our economy, and it is to be hoped that increased efforts by the companies themselves, and the governments involved, will continually improve the prospects for the peaceful use of this mineral.

Mr. Peters: Mr. Chairman, I should like to inquire about several matters that we have discussed in the past, and raise one or two new ones. One question is this: are there now engineers in this department who are qualified to check the books, and particularly the physical conditions of gold mines, to see that the mines are complying with the requirements of the Emergency Gold Mining Assistance Act?

I hope that this year the minister will be in a position to tell us that there is at least one qualified official of the mines branch who can do this and his department does not have to rely upon some other department to provide people for this work. We are spending considerable money in this field and I think something should be done to ensure