pollutant in this country is concerned, all our resources national, provincial and local, must be brought to bear on the cause of the problem. These resources must be brought to bear to correct a situation which exists.

These three broad bands of ranges, in rising degrees of concentration in a community, will be worked out for each pollutant, and specific mixtures of various pollutants. They will deal with average concentrations of these pollutants in the big air outside. They will deal also with long and short-term considerations. The lower limit of the desirable range will correspond to the normal background concentration, or detectability of a pollutant. The upper limit of the tolerable range is the maximum tolerable concentration of the selected pollutant, and whenever and wherever it is experienced this would place an unacceptable or intolerable burden on the people of Canada.

Our long term national goal is to have ambient air in all parts of Canada falling within the desirable or lowest range. This will take many years to accomplish. It, therefore, represents a long term goal for many parts of Canada. It forms a sound basis for an anti-degradation policy for the unpolluted parts of Canada. It clearly indicates the long term target for our more heavily built up and industrialized areas of the country.

The use of these three ranges, in rising degrees of concentration from desirable through acceptable, and through acceptable to tolerable, fits in with our need to establish priorities in tackling the problem of air pollution. The areas which show the highest concentrations are the first to attract our attention and concern. The areas in which deterioration is continuing to take place must also be given high priority. Of course, we will be publishing much of this information on a day-to-day or a month-to-month basis so the Canadian public will also have an idea of what is going on in this regard.

Our surveillance programs will also be linked to these ranges. The extent and sophistication of our surveillance will increase as the pollution levels increase from the desirable through the acceptable and to the highest or tolerable range. In this range, the surveillance will be designed not only to identify time trends, but also to locate the major sources of pollution as well.

Control standards and methods of enforcement pose other problems. Strategies will have to be developed for each stage of production; that is to say, for the raw material stage, the actual processing stage and the waste dispersal stage for each industry. Control at the raw material or processing stages in industry is usually most effective. These controls are usually more effective because they are more easily and readily administered, and also go to the source of the pollutant. It is further envisaged that, in addition to setting formal control standards, that is to say standards at the chimney top or at the outlet of a jet pipe, all three levels of government will attempt to convince industry to follow the practice of using the best available technology approach. This will apply with particular force to new installations, new plants and new additions of machinery and equipment used by industry and by government in this country.

[Mr. Davis.]

I have been talking so far as though the main polluters were industrial plants and government institutions. The Canadian public is also a major offender. Take our use of the automobile, for example. We will have to bear down on regulations in respect of engines that are installed and the fuel they use. We will have to get the lead out, so to speak. We will have to move in on the various kinds of fuel which we as individual Canadians burn. We can do this by controlling the quality of the fuel at its source. We will have to get the lead out of our gasolines, and we can do this by using the new sections of the new clean air act which focus on fuel of all kinds.

It is possible for us to decree at the federal level what kinds of fuel are manufactured in Canada as well as the design of fuel burners. We can control fuel and fuel-using engines at the manufacturing or factory level. We can also stipulate that imports of fuels and imports of machines meet our new Canadian standards. Again, we can deal with this big air pollution problem at a relatively few points of manufacture and points of entry.

The bill we have before us today will provide us with yet another weapon to add to our arsenal of Canadian laws dealing with pollution of all kinds, air, water and soil. We already have the Canada Water Act, which was passed during the last session of Parliament. We have amended the federal Fisheries Act and we have put more teeth into the Canada Shipping Act. Our main thrust so far, however, has been directed towards the quality of water in this country. Now, we are turning to air in the belief that air pollution also poses a serious threat to our environment. While it is not as obvious as water pollution, it may be more insidious in many ways. It may well be a greater threat to human health than water pollution. It may also be more pervasive and more embracing than many of us think.

• (12:10 p.m.)

Let me give you an example. Let me focus on oil pollution for example. I am told that the amount of oil dumped or lost in the seas and oceans in the world amounts to around two million tons a year. Fifty million tons a year evaporate and are otherwise discharged into the atmosphere. In other words, we are pumping 25 times as much oil into the world's air mantle as we are into salt water. Much of the oil which goes up also comes down. Much of it comes down into the oceans themselves. Our experts tell me that at least ten million tons comes down in the seas around us. In other words, air transported oil is five times as effective in polluting our oceans as are the oil tanker spills and other kinds of spillage. This is a very round figure. It may be out by an order of magnitude. But it proves that air pollution is a serious matter. It also indicates that air pollution is a major source of our environmental difficulties, not only locally in our cities, but also at the far ends of the earth.

What I have said about oil applies equally to heavy metals. It applies, also, to the chlorinated bi-phenyls such as DDT and PCB's. No wonder our scientists are finding DDT in the flesh of penguins caught in the Antarctic. No