

association brought to the hearings the very different perspective of the interests of Canadians as motorists, emphasizing the wishes of its members to minimize the cost of motoring. Its submission reminds us that our objectives of safeguarding the health of Canadians and reducing acid rain can only be met if we are really prepared to accept the personal cost in dollars and cents which is required, and we know it to be staggering.

There are also the interests of private industry which could be most directly affected by this decision. Those appearing at the hearings represented substantial segments of the industries important to Canada, the motor vehicle manufacturing industry and the oil refining industry. Once again, the transcripts of their submissions remind us of the complexity of the issues. As we all know, representatives of the motor vehicle industry would not welcome further major regulation of their activities and the costs they consider uncalled for, and they said so. But the opinions of the domestic motor vehicle manufacturers are not identical to those of the automobile importers as they would be affected differently. Officials of the oil refining industry, on the other hand, mainly represented at the hearings by an association, showed us in their submission that this industry also considers tightened standards unwarranted and unnecessarily expensive.

● (1730)

Again, an alternative viewpoint was also heard, this time from the Canadian Renewable Fuels Association. That is a coalition of companies involved in such fields as grain production, brewing and forestry, which foresees the possibility of the lucrative Canadian industry producing gasoline blended with alcohol which could in itself also significantly lower exhaust emissions.

What I am saying, Mr. Speaker, is that the transcripts of the hearing, for anyone who wants to review them, show that the interests in this issue are many and varied. These hearings allowed them to be aired and allowed public questioning of the facts and interpretations used to support the various positions put forward. This was the final stage of gathering evidence, and innovative stage which I have suggested and which I endorse as, in all matters, being essential to the efficiency of the process.

The consultation produced a substantial debate on the scientific basis for any such decision, that is, on the extent of damage to health and the environment by exhaust gases and on the size of the contribution by exhaust emissions to acid rain. The reports prepared for the Department of the Environment also show clearly that these issues remain unresolved within the scientific community. Research into many of the important factors is apparently in its infancy, although we are doing much to correct that. The question raised in the scientific debate is whether the exhaust emissions at issue are in fact harmful in Canadian conditions. The consultant to the Department of the Environment attempted to summarize the extent of scientific evidence on the health effects in Canada but could not provide any estimates of the extent of impairment from current vehicle emissions. The effects are apparently quite

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subtle and have so far defied the attempts of Canadian scientists to reveal and define them adequately.

The debate about the ozone formation is particularly interesting. Here again we have an argument which says that if we reduce emissions, the ozone layer may increase. On the other hand, if we do not reduce emissions, the ozone eventually will have a serious effect on our life. Which body of thought is correct? I think those are some of the things that concern us.

Another important conflict in the scientific evidence is that of the extent of the contribution by motor vehicle exhaust emissions to acid rain. If the Hon. Member for Davenport bothered to re-read some of the submissions, he would find that there is a conflict in the scientific community about the impact of reduced emissions on the creation of ozone, but I will leave that to his own homework.

Mr. Caccia: Not in Canada. You talk like a Reagan official.

Mr. Forrestall: Apparently there is substantial agreement that the nitric acid component of acid rain is normally absorbed by the environment in Canada, which is largely nitrogen deficient. The problem arises, and I am no scientist, but as I read it, from the build-up of acids in the snowpack during our winters. This produces spring shock, the sudden release of acidity into our lakes and streams. This is harmful to all our fish and animal life, and nitric acid may be just as bad as sulphuric acid if it is dumped in this sudden shock method. What the scientific community disagrees about is the extent to which motor vehicle exhaust emissions contribute nitric acid in the sensitive areas of the country in such a way that it accumulates in the snowpack, and whether the nitric acid in the snowpack actually remains in the streams or is absorbed in the spring run-off by plants and fauna along the banks. Again, the research to date does not lead to an unequivocal finding that the effect is either large or small, and there are adherents to both points of view.

Mr. Caccia: You are way off the beam, for heaven's sake.

Mr. Forrestall: I could give many further examples of the conflicts in the scientific evidence, but I think the point is made.

Mr. Caccia: Who wrote that stuff?

Mr. Forrestall: The technical issues remain complex, indeed so complex the scientific community has not been able upon the nature, size and effects of automobile exhaust emissions or, indeed, on the improvements to be obtained from reducing them individually through tighter standards.

Mr. Caccia: That is not so.

Mr. Forrestall: That is a fact. The one thing scientists will agree upon is the necessity for further research to understand this phenomenon so that we might deal with it over time properly and adequately. Many of the groups who make submissions on this issue have strongly supported future research. We do as well.