

Now, I get nostalgic when I smell burning leaves, again because of my boyhood, I suppose, but some people do not like it. I do not think this has been demonstrated to be a health effect, but they do clean it up. They find other methods of disposing of leaves and I think we will do the same thing; as our technology improves, we will improve our air pollution control and clean up our cities, unrelated to health effects.

Mr. DADDARIO. Will you theorize a little bit on this, Dr. MacFarland?

Dr. MACFARLAND. I agree with Dr. Eckardt that this is probably how it will go. I agree, too, that the direct cause-and-effect relationship between low levels of pollutant and health effects has certainly not been convincingly demonstrated at the present. I believe, however, that in time, as the evidence comes in from studies such as the ones I have described, and others, that the evidence will become clear that there is a relationship and it will, hopefully, define just what sort of a concentration we are talking about. Is it true that if a man is exposed all his life to a tenth of a part per million of sulfur dioxide that he runs such-and-such a percentage increased risk of emphysema? Or should the figure be at 0.5, or at 1, or at 1.5? I think this kind of information will gradually accumulate and I think it will be found that there are, indeed, some levels at which health effects ultimately will be manifest.

Dr. ECKARDT. Let me say I do not disagree with this statement. I am only disagreeing, at present levels of air pollution in our major cities, I do not think there are chronic health effects.

Mr. BROWN. May I comment?

Mr. DADDARIO. Mr. Brown.

Mr. BROWN. I want to make a remark which I do not want to be construed as in any way bearing on the present witnesses. But several years ago I conducted a hearing on the effects of lead additives in gasoline and possible health effects upon populations as this concentration increased. We had some very able scientific witnesses there who, at the end of the time, left me almost convinced that the more lead we got in the atmosphere the healthier it would be.

Mr. DADDARIO. You did not believe that?

Mr. BROWN. No. It runs against the grain of what you might call just normal human logic. But science does run against the grain of conventional, normal human logic. I think that there is a very sound point which has been made here. I offer the possibility and ask for comment on the history of certain types of human disease resulting from biologic agents in which the process of human adaptability has seemed to be able to develop immunities and even strength as a result of this. I am not saying that the increased intake of pollutants is going to make people live longer, but in the nature of science and the human being, I suppose there is always this possibility that could occur. We seem to have, for example, in Vietnam evidence that the natives over there have learned to develop immunities to certain types of malaria, which immunities we do not have over here. What you are saying about low-level pollutants in the atmosphere of cities, is conceivable that we could develop immunities to these things and that we would not have a long-term health effect. Basically, we would seek to eliminate them ultimately for other reasons such as they are not esthetic or they represent a waste in the production proc-