

What does the situation, as you see it at the moment, appear to be tending to? Are we correct in assuming that there are ill effects? Is there some substance to the validity of those who believe that the ill effects of air pollutants are extremely small to health?

Dr. BLUMQUIST. I think I would mention two points that are the most difficult in our experience: One would be that we are attempting to develop a curve or a linear relationship between effects and concentration in time. The research that is available does not always give us the precise points on this curve or line.

This is one of the biggest problems, the lack of objective data for all these points that we would like to be able to answer.

Then I think another big problem we are having is just how do we express the interpretation in the light of the criticism that we have had on the SO_x document? I think it has been suggested that there are differences of opinion on interpreting the data. I think that you made reference to it earlier, that you can get a group of highly competent scientists together, but the same facts do not always lead everyone to the same conclusion.

This is particularly true when we are trying to determine the critical level at which effects of significance occur. This is mostly due to two factors: One is the lack of precise knowledge on every point and the other is a difference in interpretation.

Mr. DADDARIO. Does that suggest when you publish this criteria it will leave something to be added which will necessitate additional research?

Dr. BLUMQUIST. I think this is true. I think we have to recognize this is a growing science and that the last word is not out now.

We must plan and we have planned that criteria will be revised from time to time. I don't think I would like anyone to feel that criteria are established now and forever. Obviously, with new information, additional facts will need to be considered as time goes on.

Mr. DADDARIO. Doctor, I don't often get into Mr. Bell's State of California, but the California State Department of Health recently published a report which said, and I quote: "Although smog is known to have serious adverse health effects, it is not a causative factor in lung cancer."

Would you agree it is not, that that is based on proper medical testimony?

What causative effects does it have on other types of diseases, if any? Is there one of those areas where you just have got to come to certain conclusions based on information—

Dr. BLUMQUIST. I think this is one of the gray areas. I think it is, for the facts I mentioned before, the data we have, but I think there is also a difference of opinion as to what you mean by cause.

I think in terms of disease we are generally taught to think that a single etiological agent directly causes a clinical entity, TB being one; you have to have the tubercle bacilli to get TB. I think what we are dealing with here in many situations are conditions of multiple causative factors, multiple etiology. Some of them may be primary and some may be secondary.

I think part of the controversy gets into what we are talking about as a cause. I think the major issue is that a direct cause—