Mr. MacKenzie. Vernon MacKenzie, Assistant Surgeon General, Public Health Service, Deputy Director of the Bureau of Disease Prevention and Environmental Controls of the Public Health Service

in HEW.

Mr. Multer. We are very happy to have you with us. It was my impression, as I indicated earlier, that there is sufficient legislation on the books now to authorize the District to enter into a compact with Maryland and Virginia subject, of course, to approval by the Congress if the compact is finally negotiated. If I am wrong on that I think we will have to do a little research on that. If I am wrong I think that is certainly one of the things that we can add to the bill.

Mr. Winn. Mr. MacKenzie, are you a doctor? Mr. MacKenzie. No, sir, I am an engineer.

Mr. Winn. This shoots that one question. I wondered if you had any studies. We are all aware of the nose and throat irritations that most of us probably experience from air pollution.

I wondered if they have had any medical studies that would show us or prove to us that the District has a higher percentage of these

nose and throat irritations than comparable cities of its size.

Mr. Mackenzie. I don't believe, Mr. Winn, that such data are readily available for comparative purposes specifically tied in to air pollution exposures in the Washington, D.C., metropolitan area. There is a broad mass, however, of scientific information concerning laboratory studies and other studies in various parts of the world which relate to air pollution exposures to various physiologic changes and morbid conditions and even deaths under certain acute conditions.

Mr. Winn. Do you know of any deaths that have actually occurred, directly or indirectly, from air pollution in the District?

Mr. Mackenzie. No studies have been made on this subject in the District of Columbia, to my knowledge. I am sure you are familiar with some acute episodes that have occurred in other cities, perhaps most notably in London and New York City which have been reported from time to time and have occurred over approximately the last two decades.

Mr. Winn. When we first got here in January and February there were a series of articles in the paper. I think it might possibly have been after Congressman Gude entered his bill. But there were conflicting reports in the press about the rating of the District of Columbia as far as where we stood as far as air pollution is concerned compared to other cities. As I remember, and it is little fuzzy right now, I think at one time somebody said we were the fourth worst city and it came later twenty-second.

Do we have studies along this line? Here is one that says eighteenth.

I believe that is the third different number. I haven't read this.

Mr. Mackenzie. We have information concerning the actual concentrations of a number of specific air pollutants in the District of Columbia and a large number of other cities throughout the United

The air pollution problem in one city is not strictly comparable in quality and in quantity with others because of the variability of traffic density from automobiles, the variability of fuels which are used for space hearings, and of course variabilities in the types of