

level largely toward determining the merits, the costs, and the methodology of tertiary treatment, which as I said before is not quite what I think the answer will be.

It will be a valuable additional answer where needed, but it does not resolve the central question, because I think one of your witnesses testified that if you subjected all sewages to tertiary treatment it would double to quadruple total cost, in capital, operation, and maintenance. I believe this is so. And I believe you could do it. You could do it today pretty much.

But my own search would be for procedures which are needed in a number of instances that are different from what we now do that are not mere repetitions of our orthodox procedures, and hopefully would be both cheaper and better. On this exploration, we are still fairly short.

Mr. DADDARIO. Mr. Mosher?

Dr. WOLMAN. I do not want to close my own comments without making one general observation on industrial waste, but simply because I would like it in the record.

A great deal has been done with industrial waste. If I were pressed for one sentence of conclusion, however, it would be that I think their pace of correction is too slow. Now my industrial friends would probably shoot me when I leave the room, but I think it is too slow.

I am aware of the reasons why it is possibly too slow. Some restraint is obviously due to obsolete plants, in which the economic cost is high; obviously a dollar spent in process brings a far greater return to industry than a dollar spent on wastes.

My own feeling, my own hope would be, that much of the research in industry would go into in-house process adjustment and not into external treatment. I do not like to be confronted forever with having materials discharged that you have not found a use for and then try to do something with them.

I would even say to industry, as I have, I hope you will aim at a closed cycle.

Mr. DADDARIO. Mr. Mosher?

Mr. MOSHER. No further questions.

Mr. DADDARIO. Mr. Vivian.

Mr. VIVIAN. Mr. Chairman.

I have listened with considerable interest today to the many topics you have covered. I think perhaps I sense a lesser interest in progressing rapidly than I would like.

Dr. WOLMAN. Yes?

Mr. VIVIAN. And I think perhaps my reasons for it are that I think there is a great tendency to let the ocean solve a lot of problems. I am not at all sure that this is any wiser than the attitude we had a hundred years ago when we said let the streams solve the problems, or 50 years ago when we said—for example, in my own area, let Lake Erie solve the problems.

My reaction tends to be that I would dispute with you the many comments you have made that we need to slow down, that we need to lean back.

Dr. WOLMAN. May I interrupt, Mr. Vivian?

Mr. VIVIAN. Yes.