Mr. Wagner. I would be interested in taking a flier at that, Mr. Chairman. I think you would have to—well, we have no pollution from our hydro plants, at least virtually none. You may get some ozone created, but I think it would have to be a plant, in the present state of the art that would avoid the use of fossil fuels; is that correct, Frank?

Dr. Gartrell. Yes.

Mr. WAGNER. I think you would come awfully close to it by using

it with a nuclear plant.

Mr. Daddario. As I understand it, the principle is that we have the chance to investigate some of these problems as a whole instead

of in bits and pieces.

Mr. Wagner. I would be much interested in taking a flier at that not only from the standpoint of air pollution but from a wider viewpoint which I understand was presented: A city designed for comfortable and pleasant living in a modern industrial society. It is a very challenging idea.

Dr. Gartrell. One of the more difficult things would be that of

handling the solid waste.

Mr. Daddario. Dr. Spilhaus included this in his proposal.

Dr. Gartrell. You would have to have electric automobiles, which we would like.

Mr. VIVIAN. I wonder if I could ask some questions and have the

answers submitted for the record.

You refer to a sludge project being administered by the Public Health Service and TVA on page 1 of your testimony, Dr. Gartrell, I wasn't aware that the TVA was engaged in this kind of work, but I would like to have some information on this project.

Mr. Wagner. We can give you a very brief explanation.

Mr. Daddario. Let's have a brief answer and then you can supplement it

Dr. Gartrell. This is a full-scale demonstration process for composting municipal refuse and garbage and raw sewage sludge. The plant under construction is being built at Johnson City, Tenn. It is a demonstration project under the new Solid Waste Act that the Public Health Service has responsibility for administering.

Mr. VIVIAN. What is the total cost of that project?

Dr. GARTRELL. We have a rather detailed report on the project with a description of the plan and background, and we will be glad to supply it.

(The report is as follows:)

CONCEPT AND DESIGN OF THE JOINT U.S. PUBLIC HEARTH SERVICE-TENNESSEE VALLEY AUTHORITY COMPOSTING PROJECT, JOHNSON CITY, TENNESSEE

(By John S. Wiley, F. E. Gartrell, and H. Gray Smith)

PRESENTED AT THE FIFTH ANNUAL SANITARY AND WATER RESOURCES ENGINEERING CONFERENCE, VANDERBILT UNIVERSITY, NASHVILLE, TENNESSEE, JUNE 3, 1966

About 25 years ago Europeans, led by the Dutch, began development of modern composting plants for the disposal and utilization of urban solid wastes. At first the objective was to produce compost for use as a soil builder or conditioner; later, the objective was primarily to provide a sanitary method of waste disposal

² Project Engineer, Office of Solid Wastes, Public Health Service, Chattanooga, Tennessee.

Assistant Director of Health, Tennessee Valley Authority, Chattanooga, Tennessee.

Mechanical Engineer, Mechanical Design Branch, Division of Engineering Design, Tennessee Valley Authority, Knoxville, Tennessee.