STATEMENT OF DR. LEON WEINBERGER, ASSISTANT COMMISSIONER FOR RESEARCH AND DEVELOPMENT, FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, DEPARTMENT OF THE INTERIOR

Dr. WEINBERGER. Thank you, sir. Mr. Chairman and members of the committee, I am pleased to appear before you to discuss research, development, and demonstration, R.D. & D., in water pollution control.

I will submit the formal statement for the record, if I may, Mr. Chairman, and abstract this full statement, and respond then to any questions.

Mr. DADDARIO. Proceed, if you will, please.

Dr. WEINBERGER. In my introductory statement I made reference to the second D of R.D. & D., because demonstration, as far as we are concerned, is one of the most important facets of our program in the prevention and control of water pollution.

In my statement I cover the following items: Role of R.D. & D. in water pollution control; cost and benefits of water pollution control; research and development programed planning; research priorities; industrial participation in research and development; allocation of research resources; some major water pollution problems; the scientific and technical bases for water quality standards; advanced waste treatment and progress; industrial pollution control progress; eutrophication and water quality criteria and use of water.

An effective water pollution control program consists of a number of elements; namely, scientific and technical answers and solutions, economic resources to construct and operate pollution control facilities, a strong enforcement and program implementation effort, adequate planning and administration, and competent manpower. Research and development is needed to provide new and improved analytical tools, scientific knowledge, and engineering controls. I, of course, do not intend to minimize the importance or role of research and development; however, we should recognize that many of the water pollution problems facing our Nation today can be alleviated by the application of existing technology. In fact, in the immediate future, the most significant progress will be made in this way. Through research and development, we will find solutions where none now exist, we will better define the effects of impurities on water uses, we will improve the effectiveness of available solutions, and we will reduce the costs of waste treatment systems. Gentlemen, I have complete confidence that we will find solutions—acceptable solutions, in my opinion—to all our pollution problems.

The solutions will be satisfactory from a scientific and technical point of view, but they will cost money. Although you may believe that it is obvious that pollution control will cost money, there are apparently many polluters who are unwilling to recognize any solution as acceptable unless it is a zero-cost solution. We shall seek these zero-cost solutions—indeed, in some instances, through wastes recovery or byproduct development, a profit may be realized—but we must be willing to pay for pollution control. What is meant by an economically acceptable solution is certainly to be the subject of considerable debate. Conventional cost-benefit analyses are not totally applicable because