

consent. It shows the people will support a program of magnitude running in the order of billions of dollars and that program can be worked out in a joint effort as has been done in the highway program. You have got to concentrate—I am trying to summarize very quickly. One more new process.

Carbon is a very effective filter and although very expensive, they are reducing the cost now. Carbon will filter gases and the scientists will appear next week to find out whether finely powdered coal will work. Some of the new ideas, such as carbon absorption, the use of coal for filtration and absorption, new coagulants, sludge disposal in strip mine areas, electrodialysis and reverse osmosis should be subjected to field study as rapidly as possible. The Federal Government, through Interior, is subsidizing on a larger scale than before, and what works very well in the laboratory will not necessarily work too well in the field.

The solution of water pollution problems will require not only the development of adequate techniques, but also their application. Research and development activities generally progress through a series of steps ranging from exploratory to laboratory research to field evaluation and demonstration. Field evaluation and demonstration studies require that new type facilities be constructed and operated under actual field conditions, which is generally very expensive. I am not advocating this particular process, but in short, here is someone suggesting or attempting a new type of idea, merely using plain pulverized coal in which you have an abundance and it has an economic need as the Appalachian program showed.

They can skim off the contaminated top layer of coal and burn it up in a furnace and generate power and steam so municipality or industry will get its money out of coal or the organic material absorbed. So, Mr. Chairman, with the fund of knowledge we have today there is no reason and no excuse for permitting what is an absolute necessity, the water in abundance for effective and efficient reuse of what water we do have, as you stated in your very fine opening remarks. Here we have today more than 95 percent of all the scientists that ever lived in the history of mankind alive today, and I think my interest in medical chemistry, I believe I am correct in using these figures, 75 percent of all the prescriptions used to date were not in existence at the close of World War II, about 20 years ago.

Talking about the volume of knowledge that is being found today, a new communication concerning chemistry is published somewhere in the world every minute, a report on physics every 3 minutes, and a report on medicine, biology, and electronics every 5 minutes. To give an idea of the rate information is being made available, I read recently that if a man started at the first of the year to read everything new in chemistry as it was published, by the end of the year he would be 10 years behind.

To show you the availability of this knowledge around us and it can be done systematically and effectively, using all the knowledge found in these different agencies, so I strongly urge this inquiry. I hope and know it will be a productive one. I strongly urge support to both the basic science and research and to the applied research and demonstration programs in the field of environmental problems, more particularly to water pollution.