

the stack gases is much needed. It would contribute greatly to air pollution abatement all across the Nation; equally significant, it would help to conserve an important but exhaustible natural resource.

Sulfur is basic in the production of fertilizers, and it is becoming important as a plant nutrient. Commercially available sulfur is in short supply, and newcomers in the fertilizer production field are having great difficulty in contracting for adequate amounts of sulfur on a long-term basis.

At a time when we are plagued with world food shortages and when chemical fertilizers can help to alleviate them, there is this added urgency and reason for finding a way to extract sulfur dioxide from stack gases. We are currently assessing present technology in this field and will undertake new research to help find a solution.

I would like to mention also that we are engaged in an extensive clean air program at our chemical fertilizer facility at Muscle Shoals. This facility dates from World War I, with some subsequent improvements. We now have underway a \$3 million air pollution control program to bring air quality at the facility up to present-day standards.

As I indicated this morning, here with me are Dr. F. E. Gartrell of our Health and Safety Division and Mr. A. B. Phillips of our Office of Agricultural and Chemical Development. With the committee's permission, I should like to ask Dr. Gartrell to describe in greater detail our study program in air pollution control at our electric generating plants. Then, if the committee has questions about the technical aspects of research in the extraction of sulfur from stack gases, or about the control program at our chemical plant, Mr. Phillips can respond to them.

Mr. DADDARIO. We will proceed with Dr. Gartrell and then see how much time we have.

Mr. WAGNER. Mr. Chairman, you have a copy of Dr. Gartrell's statement. It may take longer to present the entire statement than you desire, and if you prefer, he can give you an abbreviated version of it.

Mr. DADDARIO. Any savings in time will be looked upon favorably.

Mr. WAGNER. Then Dr. Gartrell will give you an abstract.

STATEMENT OF DR. F. E. GARTRELL, ASSISTANT DIRECTOR, DIVISION OF HEALTH AND SAFETY, TENNESSEE VALLEY AUTHORITY

Dr. GARTRELL. The following comments will be an abstract of the more detailed statement.

Prior to the construction of the Johnsonville plant in 1949-53, the only thermal powerplants in the TVA system were relatively small plants which did not present any special air pollution problems. During the past 15 years TVA has added 53 coal-fired, steam-electric generating units to its power production facilities. These units range in size from 125 to 950 megawatts, and are located in 9 plants with total rated plant capacities running from 823 to 1,978 megawatts. The number of units at each plant ranges from 1 to 10.

The addition of 1,150 megawatts now being installed at the two-unit Paradise plant will increase total capacity of that plant to 2,558