

Research on SO₂ removal was suspended in 1956 when it was concluded that it was highly improbable that a practical process could be developed in any reasonable period of time that might compete successfully with other sources of sulfur. Also, other studies strongly indicated, and experience has confirmed, that satisfactory control for projected additions to the system could be achieved by dispersion from high stacks.

The world sulfur outlook has changed greatly since that time. Today, there is such a sulfur shortage that newcomers to the fertilizer field (which uses 50 percent of all sulfur consumed in the United States) find it impossible to contract for an adequate supply of sulfur. The price of sulfur is increasing rapidly and reserves of elemental sulfur which can be recovered at low cost are decreasing. Further, during the past few years, increased attention, both nationally and internationally, has been directed to reduction in SO₂ emissions from all sources, including large thermal power stations. For these reasons, TVA has renewed its interest in research on processes for removal of SO₂ from power plant stack gases. We have collaborated with the Public Health Service in exploring possibilities for large scale pilot plant testing in TVA power plants of some of the more promising processes in advanced stages of development. We are planning to resume research in this field. We are making an extensive survey of current research on SO₂ removal processes. Results of the survey will be used as a guide in the selection and planning of investigations to be included in the research program.

Some progress is being made and with the worldwide research effort currently being directed to the problem, practical processes for removal of SO₂ from fossil-fuel-fired power plant stack gases and economic recovery of sulfur for useful purposes probably will be developed. However, at present we know of no generally applicable process that has been sufficiently proved to be relied upon as a primary method of SO₂ air pollution control from a large power plant. Thus, at least for the next few years, SO₂ air pollution control for new fossil-fuel power plants and additions to existing plants where low sulfur fuels are not reasonably available, will have to be planned with principal reliance upon dispersion from high stacks, with possible supplementary control.

SUMMARY

We have attempted in this statement to review TVA experience in the measurement and control of air pollution from large coal fired power plants. Progress that has been made in technology for evaluating the potential magnitude of the problem and the demonstrated effectiveness of high stacks for control of air pollution from TVA thermal power plants have been described. We hope that this résumé will be useful to the Subcommittee in its assessment of the technology for control of air pollution from large fossil-fuel-fired power plants.

This committee will adjourn until Wednesday next at 10 o'clock. (Whereupon, at 12:45 p.m., the subcommittee adjourned until 10 a.m. Wednesday, August 17, 1966.)