low level emissions from household heating equipment in the much publicized tragic experience of London in 1952.

Since, in my discussion of January of this year, I did not offer any extensive proof of my statement, I would like to offer for the record the experience with high stacks in two companies with which I have been intimately associated, in one—the American Electric Power System—over the past 40 years, and in the Ohio Valley Electric Corp., of which I have been the chief executive officer since its founding in 1952.

The entire development of this technology is set forth in a paper that a colleague of mine, T. T. Frankenberg, and I prepared for submission at the International Clean Air Congress to be held in London this coming October 4–7. This will in due course be printed in full. I offer it for the record here in the highly condensed version (see p. 884).

No reading and study of this record, it seems to me, can fail to result in anything but agreement that high stacks offer a highly acceptable, effective, and so far the only available pragmatic solution to the problem of disposing of SO_2. Efforts to remove sulfur from fuel before burning it have so far come to naught. Numerous studies seeking to remove SO_2 from the flue gas have arrived at estimated costs which make the process totally unacceptable even before the operating problems have been evaluated by actual construction and operation.

In making the above categorical statement, I do not want to be charged with the belief that high stacks are a permanent solution to this problem, good for all time into the future. Very few technological solutions have any such permanency and this is no exception. But it is certainly a solution that is good for some decades to come. Still, since decades have a way of rolling around, there is need for continuing careful studies to find other solutions which can be developed to practical application. Economic application might perhaps take anything from a decade to two or three decades.

In this connection, there is certainly also need for very careful studies before and after the installation of every major powerplant utilizing the technological device of high stacks in order to obtain a more extensive evaluation of the mechanism of diffusion. Such studies will without doubt provide the students of the problem, and the designers of pragmatic technological devices for coping with them, with a degree of confidence in evaluating this mechanism and variations of this mechanism for dispersal of SO_2 so that we con continue to improve the effectiveness of the solution in the years to come without playing havoc with the country's economy.

In addition to the studies of high stacks by the Tennessee Valley Authority, alluded to in my January presentation, further attestation to the abatement possible by this means has recently come to my attention. In the July 1966 issue of the Journal of the Institute of Fuel (vol. XXXIX, No. 306, pp. 294–307), A. Martin and F. R. Barber of the Central Electricity Generating Board, Midland Region, Nottingham, England, report "Investigations of Sulfur Dioxide Pollution Around a Modern Power Station." The High Marnham Power Station, situated in a relatively flat area, has a maximum output of 1,000 megawatts and two stacks, each 450 feet high. I should like to quote briefly from the abstract of the paper: