

so often throughout the hearings. As you know, there is no economical means of removing SO_2 from effluent gases. Why? Because until the past year or so there were no controls covering the emission of SO_2 . As a result, there was no market. People in business do not spend any significant amount of money on research of nonmarketable products. Even today, there are controls in only three or four small areas of the country and these regulations are met by burning lower sulphur and higher cost fuels. The controls must come first, but there must also be time to permit industry to develop an economically feasible solution.

On the question of who is to do what research, the answer was clearly and succinctly stated by Dr. Bueche when he divided research into two categories:

1. Research that will produce information useful for establishing standards, determining necessary regulations, enacting appropriate laws and suggesting methods; and
2. Research that will produce information useful in developing hardware and systems that can be manufactured and sold.

No. 1 is strictly within the realm of the Government and No. 2 that of industry. Also, due to the urgency of the problem, there should be some governmental support of private research.

During Dr. Bishop's testimony, Mr. Daddario, you raised the question of how the steel industry selects a collector to do a certain job and why there isn't an industry standard for a given application. It is regrettable that there wasn't ample time for Dr. Bishop to give a more complete and definitive answer because, at this point, we felt that there was a lack of rapport between the witness and the members of the committee. In areas such as this, we feel that our institute could lend the committee valuable assistance. In this letter, we cannot go into all of the details involved relative to your steel industry question; but, because two or three types of equipment will do the job required, many things must be considered in selecting the equipment to be used, such as—

1. First cost versus operating and maintenance costs.
2. Available space.
3. Availability of water.
4. Power consumption.
5. Disposal of waste product, wet or dry.

In Mr. Arthur C. Stern's testimony on July 21, there is, perhaps, an implication that industry, and in particular the air pollution control industry, is not making an adequate effort in research. We would like to clarify this situation in regard to the gas cleaning industry. Because there is little or no control of gaseous emissions to date, and our members account for 80-85 percent of the particulate collectors sold, we essentially are the air pollution control industry as it is presently constituted.

Contrary to popular belief, ours is not a large industry. The total annual domestic sales of the members of the IGCI (no auxiliary equipment or installation costs included) for the past 5 years are: