and the processes lend themselves to closed-cycle operation with a minimum of byproducts or waste product throwoff. But there is constant pressure to reduce costs and this is one of the best ways to reduce cost, to close the cycle.

Mr. DADDARIO. Mr. Roush?

Mr. ROUSH. Mr. Chairman, as I heard this testimony, I had the very distinct impression that the chemical industry is very conservative in its approach to the solution of this problem. Over the past 2 or 3 years, I have sat on another committee of this Congress studying the pollution problems as they relate to water and it has been my consistent impression that the chemical industry is one of the greatest polluters of our streams. As a matter of fact, I sat in a meeting in Rochester, N.Y., when this gentleman was testifying as to what the chemical industry had done. We found that the Hooker Chemical Co. was among the polluters of the streams. This conservative attitude in approaching a problem which the industry has imposed on the public doesn't really go down too well with me.

You state that you are spending $8 million annually on air and water pollution control research. I'm wondering what percentage of your total research and development budget that figure represents.

Mr. LOGAN. Let me clear the record. The specific statement was that a survey made in 1962 showed that people were spending at that rate—this is date of about 1960. I personally feel that it may be double that today. I don't have any more recent data, so I think we must recognize that the $8 million figure is out of date.

Mr. DADDARIO. It would be helpful, Mr. Logan, if you could get for the record a more up-to-date figure which would reflect the change which has taken place in your industries since that $8 million figure was determined.

(Information provided regarding this request is as follows:)

Respecting the chemical industry's expenditures for research on wastes treatment and air and water pollution control, we reported 125 companies were spending more than $8 million annually as of 1962, of which $5.5 million related to water pollution and $2.8 million related to air pollution. Comparable current figures are not readily available. We will request such information again from our member companies in implementing our expanded program in environmental health but it will take several months to compile it since companies must gather it internally from a considerable number of sources. When the information has been compiled, we shall be pleased to furnish it to you and the Subcommittee.

Mr. LOGAN. One of the efforts that we recognize that is currently needed is an up-to-date survey of our industry in terms of what it is doing in pollution abatement, what it is doing in pollution abatement research, and also what it is discharging in the way of waste, and this is a part of our current forward program but we do not have such data other than the 1962 survey at hand.

Going back to Mr. Roush's remarks—one of the difficulties is with the general use of the term "chemical." You go along a stream and you see an unusual color or sediment of some sort and you say, "Well that's some chemical." This may have had absolutely no connection with the chemical industry but the term "chemical" covers practically all of the science-based industries.

It can cover petroleum industry wastes; it can cover paper industry wastes; it covers the detergent industry problems. So I think when we