

The engineering firm of Jackson and Moreland is now conducting an API-sponsored study in New York City to determine the feasibility, cost, and effectiveness of the plan we propose.

A similar study, also sponsored by API, and directed toward the prediction and prevention of episodes, and carried out by New York University, involves the evaluation of air monitoring methods and meteorological forecasting in the New York metropolitan area.

We would like to submit for the record a short paper on how such episodes might be controlled, written on behalf of the oil industry and delivered in June, at the Air Pollution Control Association meeting by Mr. Curtis G. Cortelyou of the Mobil Oil Corp.

Mr. DADDARIO. Without objection, that paper will be incorporated. (The information requested is as follows:)

A PRACTICAL MEANS FOR COMMUNITY AIR POLLUTION CONTROL¹

(By C. G. Cortelyou, Air and Water Conservation Coordinator, Mobil Oil Corporation, New York, New York)

In national magazines, in newspaper articles, and in several books that have come out in the past year or so, the promotion of the cause of pollution control has largely been based on the need to prevent air pollution incidents. The dramatic stories of the Meuse Valley, of London, of Donora have been told over and over because they emphatically point up pollution's hazards.

Beyond doubt such episodes, with their effect on human life, are the most clear-cut pollution problems. There is no question here. The need to end their threat is not under debate in any quarter that I know of.

Thus the episode is a problem upon which all of us can join in the attack—without reservations. Perhaps, we can reasonably question in medical, technical, and economic terms the need for complex and costly control of very low levels of specific pollutants. But no such question and no delay can be justified when it comes to the principal problem that we face—the air pollution incident.

It was in recognition of this that last year physicians and technical people working within the American Petroleum Institute developed what has come to be known as the API pollution incident control plan. It is, I believe, a constructive contribution to the science of air pollution control.

In studying the records of the health-damaging episodes most frequently cited, it is clearly seen that elevated levels of sulfur dioxides were present during each of them. But physicians in and outside the oil industry have told us that sulfur dioxide, although accused of being the villain of the piece, could not alone cause a health hazard at the levels recorded.

Sulfur dioxide, the physicians tell us, is largely filtered out in the mouth, nose, and throat when inhaled alone, and only a very small fraction gets into the lower respiratory tract. Thus, industrial workers have been exposed 5 days a week, 8 hours a day, year after year to sulfur dioxide levels of 5 parts per million—and even 10 and 20 parts per million—without bad effects. The industrial standard is 5 ppm, a level many times higher than that reached in any American community under the most adverse conditions.

In working up the API plan, a close examination was made of available data on known air pollution incidents that have occurred around the world. While high levels are safely encountered in industrial situations, it was found that sulfur dioxide levels during known pollution episodes were sometimes in a range of no more than 0.8 to 1 part per million.

Obviously, something special happens in the urban situation under adverse conditions—something not encountered in the industrial situation. The difference was clearly defined when top experts in the field from around the world gathered last year in New Hampshire at the Gordon conference on sulfur oxides and related compounds. Particulates, the experts generally agreed, play a crucial role in causing the air pollution incident. Sulfur dioxide is absorbed

¹ Presented at the annual meeting of the Air Pollution Control Association, San Francisco, Calif., June 23, 1966.