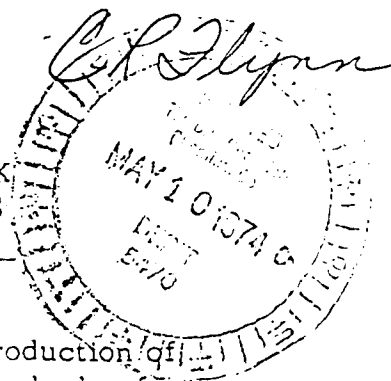


from May 10

DATE AND NAME			
C. R. FLYNN	✓		
A. MELBY			
J. M. HYLOP			
C. D. SEBASTIAN			
M. J. BRYEN			
B. R. DOLSON			
B. A. HUNTER			
V. C. HANSEN			

KEY POINTS FROM MR. VITTON'S TALK
AT NEW YORK ACADEMY OF SCIENCES
MAY 10, 1974



Today, PVC is used in hundreds of products and also in the production of essential components for many other assembled products. Hundreds of thousands of workers are employed in industries that produce or depend on PVC for the manufacture of countless products.

Compared with just 10 years ago, the degree of exposure to vinyl chloride in our plants is many times lower as a result of closer monitoring and better controls of the various processes. Since our announcement of the Louisville situation in January both we and the industry have made additional substantial progress. Medical surveillance of employees is also improved.

In the past four months, we have accelerated these programs. In addition, we have redirected our other research and development effort by placing priority emphasis on lower exposure and starting new programs in these areas. In fact, we now have 135 scientists and technicians at our Research and Development facilities and plant facilities working on process and product improvements directed at lower vinyl chloride losses and lower exposure.

Our goals are to approach negligible losses of vinyl chloride to the air, to the water and in our PVC resins. Today we do not have the engineering capabilities of doing this. But, there is no more important activity in our operations today than to find out how to do it.

As hard as we try, I realize that the entire job cannot be done overnight.

We must look to science and technology and allow time for the process improvements, engineering, and installation of facilities that will lead to negligible losses of vinyl chloride to the air, water and in the PVC resins.

We can expect incremental improvements as research and development begin to pay returns.

Finally, industry, labor, government, and the scientific community must continue to cooperate to make the most of our time and our resources. All of us have a stake in the outcome of these efforts to assure the safety and well-being and continued employment of the thousands of workers in these industries.

The underlined sections represent the main points of our present position on this subject.

22913001

Anton Vittone - Speech
New York Academy of Sciences
May 10, 1974

From the beginning, when we first confirmed three angiosarcoma cases at Louisville, we made it a point to communicate openly and to stick to the facts. That remains our policy because we believe that self-serving comments and speculation serve no useful purpose. We realize that workers and the public at large want answers, not hollow statements.

We still agree with a statement that Dr. Selikoff made on February 15 at the OSHA hearing in Washington. In response to a question, Dr. Selikoff pointed out that data are badly needed and that it would be prudent to confine our judgment to the information at hand.

We believe this is the prudent course to follow with full urgency.

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As a result of our policy of openness, all of you, I am sure, know the essential facts about how we discovered the problem at Louisville and what we have been doing to correct it and also to prevent a situation like it from happening again. Therefore, there is no reason for me to review what is already known. Like yourselves, we are concerned mainly about providing a greater margin of protection for vinyl chloride workers in the future, and the treatment of those who may now be ill.

I want to speak to you tonight as a man who has spent 33 years in the fields of manufacturing, research and development, and engineering. My plant PVC manufacturing experience goes back to some 25 years ago when levels of exposure to vinyl chloride were many times what they are today.

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In that period of time there were occasional plant areas where one could smell vinyl chloride indicating fairly high levels.

Specifically, I want to mention a few facts that may have been overlooked in the rush of earlier events or perhaps taken for granted. I also want to express some thoughts on how I believe we should go about planning the manufacturing improvements that are necessary.

Like other chemicals and materials, the use of vinyl chloride and polyvinyl chloride expanded because these products were essential in many applications. In meeting these various needs, the production of vinyl chloride and polyvinyl chloride has provided many substantial social and economic benefits, many of which are not even fully appreciated by people

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within our industry.

It is only natural that an unexpected, serious problem like the one we have experienced would overshadow the good that has resulted from the production and use of vinyl chloride and PVC.

The initial impetus for the growth of these materials in the United States came from the requirements of national defense in World War II.

The fire resistant properties of PVC made it a superior insulation for electrical wiring for naval vessels and other military applications. It provided a degree of protection against fire that had not previously existed. There is no doubt that these PVC uses helped save many lives during the War and since then in similar military and commercial applications.

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Following the War, many new uses were found for PVC because of its versatility and inherent performance qualities. Today, it is used in hundreds of products and also in the production of essential components for many other assembled products. Hundreds of thousands of workers are employed in industries that produce or depend on PVC for the manufacture of countless products.

All of us will have a better idea of the full scope and importance of PVC to the economy when Arthur D. Little completes its current economic impact study.

The economic importance of PVC around the world is indicated in current production estimates. World-wide output is nearly 18 billion pounds annually, including 4.6 billion pounds produced in 1973 in the United States.

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Throughout its long and sustained growth, the PVC industry, and certainly our Company, have established excellent safety records.

The chemical industry's safety record, expressed as the number of lost time accidents per million man-hours worked, was 4.12 in 1973 which is substantially better than U.S. manufacturing in general and even better than the accident frequency rate in homes. In our case, for example, even though we are never satisfied with it, we had a low frequency rate of 1.02 in 1973.

Obviously, these records, even with the improvements that can always be made, did not just happen nor were they talked into existence. They result from the conscientious efforts of many people, managers, professionals, and workers to safeguard themselves

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through every means known to us. In the case of vinyl chloride and polyvinyl chloride, we voluntarily put into effect better safety controls, installed new equipment and established tougher standards when new concerns arose, such as in the actions that were taken following the acroosteolysis problem in the mid-1960's and Dr. Viola's reports in 1970 and the subsequent research.

None of this, however, lessens our concern nor erases our remorse about the angiosarcoma cases that have been discovered at our Louisville plant and at a few other industry locations.

Ironically, the Louisville plant, which is a forerunner among PVC facilities, provided much of the PVC for insulating electrical wiring during World War II when so many lives were at stake.

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A great many new programs have been started since our announcement in January, but the need for better and more data is obvious.

Nevertheless, important progress has been made in this short period, primarily because of the cooperation between industry, labor, government, and the scientific community which, more than any other factor, must continue in order to solve this problem.

This cooperation has impressed many observers, including a number of journalists. We also have been told that this is a good example of the type of cooperation that is needed for our society to solve its problems.

22913009

Meetings such as this can certainly help in the over-all effort.

As we plan ahead and consider our actions, we must recognize that previous work has significantly reduced exposure in our plants. These improvements, in our case, resulted from a combination of technological improvements and the construction of larger, more efficient facilities.

Looking back, with the benefit of hindsight, there may have been some steps that should have been taken sooner. No one wishes more than we do that the potential danger of higher exposure levels in the past would have been recognized early enough to prevent the deaths that have been discovered.

22913010

Unfortunately, hindsight is always better than foresight in any field or profession, but we should not completely overlook the many improvements that were made in the past, especially in recent years, in response to all that was known at various stages of the industry's development.

For example, we did provide safeguards for workers in our very first vinyl chloride and PVC facilities against the known hazards of fire, explosion, toxicity and mechanical equipment.

Our goal, then and now, is to reduce the degree of risk to a controllable level where proper precautions and watchfulness can further minimize the potential hazards that are not unlike those we encounter in daily activities at home, in travel, or even in recreational pursuits.

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Compared with just 10 years ago, the degree of exposure to vinyl chloride in our plants is many times lower as a result of closer monitoring and better controls of the various processes. Since our announcement of the Louisville situation in January both we and the industry have made additional substantial progress. Medical surveillance of employees is also improved.

To seek further improvements, we must turn again to science and technology and allow adequate time for research and development and enough lead time to engineer, build, and install new equipment.

There are several processes with many variations in the PVC industry and many different products that must be studied in order to determine the best and fastest ways to decrease vinyl chloride exposure.

22913012

Some will lead to faster solutions by research and development than will be possible with others. This must be determined by looking at all the feasible possibilities.

At B.F. Goodrich, we have been working for some time on research and development programs to decrease losses of vinyl chloride.

In the past four months, we have accelerated these programs. In addition, we have redirected our other research and development effort by placing priority emphasis on lower exposure and starting new programs in these areas. In fact, we now have 135 scientists and technicians at our Research and Development facilities and plant facilities working on process and product improvements directed at lower vinyl chloride losses and lower exposure.

Our goals are to approach negligible losses of vinyl chloride to the air, to the water and in our PVC resins. Today we do not have the engineering capabilities of doing this. But, there is no more important activity in our operations today than to find out how to do it. It involves our most capable and dedicated people. Our full resources are supporting this work which is on a six-day week basis for most of the people who are involved. In fact, some of our pilot plant facilities are now operating a seven-day basis to accomplish these goals.

As hard as we try, I realize that the entire job cannot be done overnight. Even after promising new concepts are developed and tried, we still face the time for engineering, fabrication, and delivery of equipment and its installation.

While these intensive programs are continuing, we are working to develop new administrative and medical procedures, including better screening of employees on the job, and new hires, as well as better continuing medical surveillance.

In summary, I hope I have made these points tonight:

1. PVC has made substantial social and economic contributions to our society.
2. These benefits can increase as we work to reduce levels of exposure below those that have already been achieved.
3. We must look to science and technology and allow time for the process improvements, engineering, and installation of facilities that will lead to

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negligible losses of vinyl chloride to the air, water and in the PVC resins.

4. We can expect incremental improvements as research and development begin to pay returns.
5. We must more closely coordinate medical procedures and surveillance and personnel administration with greater emphasis on prevention and research at the first sign of any unusual condition.
6. Finally, industry, labor, government, and the scientific community must continue to cooperate to make the most of our time and our resources. All of us have a stake in the outcome of these efforts to assure the safety and well-being and continued employment of the thousands of workers

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in these industries.

Thank you for allowing me the opportunity to express
my thoughts to you tonight.

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