PPG INDUSTRIES

PPG INDUSTRIES, INC./20325 CENTER RIDGE RD./CLEVELAND, OHIO 44116/AREA 216/331-4100

JAMES E. KERNS, Regional Sales Manager
Industrial Chemical Division

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February 15, 1974

Mr. J. S. Wolff
B. F. Goodrich Chemical Company
6100 Oak Tree Boulevard
Cleveland, Ohio 44131

Dear Jim:

Attached is a copy of PPG Industries' Policy on the events recently published concerning the VCM-PVC Industry and possible occupational hazards. This policy represents the best information available to PPG at the present time and we thought it should be shared with our VCM customers. As new information becomes available to us we will continue to keep you posted.

Very truly yours,

PPG Industries, Inc.
Industrial Chemical Division

James E. Kerns
Regional Sales Manager

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Attachment

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PPG POLICY STATEMENT
VCM HEALTH HAZARDS
FEBRUARY 8, 1974

The recent news release by B. F. Goodrich that appeared in the Wall Street Journal on January 24, 1974, that they were investigating cancer deaths of workers in their Polyvinyl Chloride operations at Louisville, Kentucky, that might be related to Occupational exposure is of concern to PPG and the Polyvinyl Chloride (PVC) - Vinyl Chloride Monomer (VCM) industry.

The American Conference Of Governmental Industrial Hygienists (ACGIH) an organization comprised of various governmental and university experts, has for many years adopted Threshold Limit Values (TLV) for numerous chemicals including Vinyl Chloride Monomer. A TLV refers to airborne concentrations of a specific chemical and represents conditions under which it is believed nearly all workers may be repeatedly exposed, day after day, without adverse effects.

Up until 1962 the Time-Weighted Average (TWA) TLV adopted by the ACGIH for VCM was 500 PPM. In 1963, the TLV was revised to include a ceiling value of 500 PPM (without regard to time). This remained unchanged until 1970 when the ACGIH further lowered the TLV level to 200 PPM but removed the ceiling value restriction.

With the passage by Congress of the Williams-Steiger Occupational Safety and Health Act in 1970, The Department of Labor published in the Federal Register its startup standards for various chemicals. This standard established a 500 PPM ceiling value for Vinyl Chloride Monomer.

Dr. P. Luigi Viola, An Italian Physician, performed animal studies in attempts to simulate finger bone deterioration experienced by PVC Autoclave Cleaners in Europe. As a result of this work, published in the U. S. in 1971, he reported finding some cancers in animals exposed to very high concentrations of VCM vapors (20,000 - 30,000 PPM), but his test procedures were subject to numerous questions and criticisms. This new information that high concentrations of VCM may cause cancer in animals was not heretofore appreciated by the industry. This was certainly a cause for concern by PPG, although none of our employees have been exposed to concentrations and times of exposures that were used in Dr. Viola's tests.

PPG and other PVC - VCM producers met in late 1971 under the auspices of the Manufacturing Chemists Association and formed a research coordinators' committee to review all of the available toxicological information and to develop data where the committee felt voids in our knowledge existed. In 1972, this committee commenced the development of protocols for animal exposure and epidemiological studies. The industry commenced in 1973 a long-term chronic Vinyl Chloride Monomer inhalation study employing hundreds of animals at exposure levels well below those reported by Dr. Viola. This study is currently in progress at the Industrial Biotest Laboratory in Decatur, Illinois.

A contract was awarded to Tabershaw-Cooper and Associates to perform an epidemiological survey to determine the general causes of death among long-term PVC-VCM industry workers. The Tabershaw-Cooper and Associates survey was started in the summer of 1973, and will cover approximately 6,000 employees in this industry.

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In 1973, European data involving exposure of VCM to rats revealed that cancers were formed at or near the current Threshold Limit Value. PPG revised VCM Bulletin No. 115A to suggest that although the TLV of 200 PPM agreed with the then recommended ACGIH level, PPG recommended that vapor concentrations should not exceed 50 PPM as a Time-Weighted Average atmospheric concentration for an eight-hour day until ongoing toxicological studies are concluded. This bulletin was mailed to all of our VCM customers and PPG facilities.

In view of the latest information that the formation of rare liver cancers (Angiosarcome) may be related to a segment of the PVC production, PPG has initiated a comprehensive review of its operations to further reduce employee exposures to VCM to the minimum achievable. Some engineering changes in the process are already being implemented and employees will be required to use respiratory protection during certain procedures to prevent exposures. In addition, more elaborate and expanded air monitoring programs are being incorporated to determine the extent of workers' VCM exposures. This will include new instrumentation for detecting very low levels of VCM and a personal monitoring system, in addition to increased area sampling. The PPG facilities are taking immediate action to revise operating manuals to prevent worker exposure in all phases of VCM operations.

At PPG's Lake Charles, Louisiana, and Guayanilla, Puerto Rico, Plants, employees have been given annual physical examinations and laboratory tests for kidney and liver function since the startup of these VCM operations. Whenever an abnormality is found, the employee is so informed and counseled to seek further medical evaluations from the employee's family physician. PPG has again reviewed all of its Vinyl Chloride employees' medical records and, to date, there are no indications of any such findings among PPG employees. Although PPG feels, after a review of its medical records and exposure data, that this recently reported Angiosarcoma among Polyvinyl Chloride workers will not develop among PPG employees. The latene period for development of Angiosarcome precludes us from establishing with certainty that no one will develop this cancer in the future.

A team of industry medical experts have been assembled by MCA to review the adequacy of the previous medical tests, and based on their findings, PPG's medical program will be altered if necessary. If any employee desires consultation to discuss his medical history or symptoms, an arrangement will be made to schedule a meeting with the plant physician.

Because of these events, PPG insists on strict compliance with operating procedures required to prevent exposures to VCM. Therefore, each employee is instructed to avoid breathing VCM vapors, to follow safety instructions set forth in operating manuals, and to report any problems or symptoms to his supervisor and/or the plant physician.

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