PLAINTIFF'S EXHIBIT
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Calidria ASBESTOS
THE DISCOVERY COMPANY

UNION CARBIDE CORPORATION • MINING & METALS DIVISION • P.O. BOX 579 • NIAGARA FALLS, N.Y. 14302 • TEL: 716-285-3311

October 12, 1971

Mr. Dennis P. Bridge
Manager Environmental Control
PPG Industries, Inc.
1 Gateway Center
Pittsburgh, Pa. 15222

Dear Mr. Bridge:

Pursuant to our telephone conversation yesterday, I have enclosed a copy of a report "Airborne Asbestos" prepared by the Committee on Biologic Effects of Atmospheric Pollutants of the Division of Medical Sciences, National Research Council. It is a comprehensive report on asbestos and I think puts the facts in their proper prospective.

The toxicological aspects of asbestos have become a subject of considerable controversy. The evidence to date leaves much to be desired concerning the actual hazards, their causes, and controls with regard to its use. This is not a new subject and, in fact, has been studied for 30 to 40 years. There are some definite hazards associated with asbestos, the principal being asbestosis, a non-malignant disease brought on by inhalation of excessive concentration of asbestos dust usually over a period of many years. Asbestosis is a form of pneumoconiosis. Other examples are silicosis from silica, talcosi from talc, and anthrocosis from coal dust. These are considered industrial health risks against which the various industries have instituted protective measures. There is no evidence to date that asbestos offers any hazards to the general public by its use in the ~3000 commodities containing asbestos.

The carcinogenic hazards more recently attributed to asbestos have opened a pandora's box. The dormant period required to develop lung cancer or mesothelioma, a tumor of the chest and abdominal cavity is normally 20 to 40 years. The exposure required to cause asbestosis has been estimated to be 50 to 60 mppcf-years. No exposure relationship has yet been established between asbestos and lung cancer or mesothelioma. Due to the long period of latent incubation for these diseases, they are difficult to diagnose, treat, or investigate. As a result, much of the data to date is based on case histories 20 to 50 years ago under conditions which industry at that time had little or no knowledge of the hazards involved. Further complicating the issue is that there are six different varieties of asbestos: chrysotile, amosite, crocidolite tremolite, actinolite, and anthophyllite. These material are not alike either in chemical composition or physical properties.

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This paper contains "Calidria" asbestos T-135, an efficient, low-cost opacifier. It is 60-lb. Fairmount

Most of the studies associating asbestos with cancer have been based on the evidence of "asbestos bodies" observed in the lung tissue or abdominal cavity. The composition of "asbestos bodies" has become the subject of considerable controversy itself among the researchers. Some believe that the so-called "asbestos bodies" may be in many instances a variety of non-asbestos dust particles of which it has been proven substances other than asbestos can cause. These particles are referred to as ferruginous bodies due to the distinctive appearance of a fiber core with an iron-protein covering. Obviously, there is considerable room for further investigation.

The hazards associated with chrysotile are usually based on exposure to high levels of dust over a long period of years. The major concern has been with the mining and production facilities of the asbestos industry. Needless to say, anyone using a potentially hazardous material should practice prudent precaution. In line with this thinking, we recommend as a policy that our customers maintain adequate ventilation in their facilities and/or the use of dust masks when handling our products. As you pointed out, there may be some potential for emmission of asbestos dust by your customers during finishing operations; such as sanding or cutting of the cross-linked polyester. However, the thixotrope is a minor constituent of the polyester formulation and the use of exhaust hoods and/or respiratory devices is required for most finishing operations due to the general hazards associated with the inhalation of resin and fiberglass dusts.

As I understand from our earlier conversation, the decision to use CALIDRIA RG-244 in your polyester products may be negated due to the potential health hazards associated with asbestos. We believe that our asbestos products may be used safely and within the practical applications of your company and its customers. If we may be of further assistance, please do not hesitate to call on us.

Very truly yours,

B. L. Ingalls
Manager - Eastern Region
Sales and Technical Service

BLI/bsn
Encl.

b.c. Messrs. R. E. Byrne
N. A. Dube
J. L. Myers
H. B. Rhodes

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