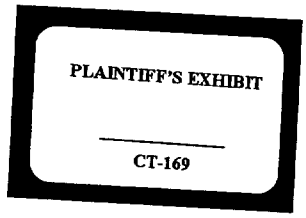
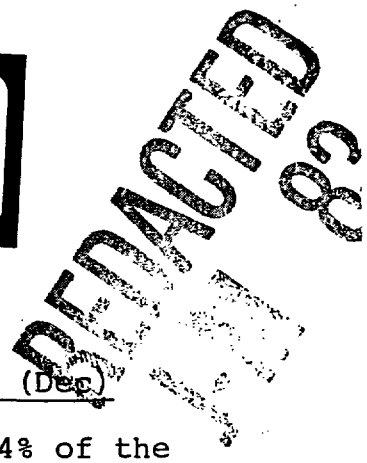
Research & Engineering Center
January 25, 1967





A. C. Smith

ASBESTOS - ENVIRONMENTAL PROBLEMS
STATUS REPORT - JANUARY 24, 1967

1. PACKINGS AND FRICTION MATERIALS DIVISION

A. Study of Wear Products from Friction Materials (Dec)

As indicated in the report dated 12/13, only 1.4% of the wear dust collected was asbestos fiber. No information has yet been received regarding the dust samples submitted by Dr. K. W. Smith for biological testing. No additional sampling of wear dust is planned until information on biological effects is obtained.

2. PIPE DIVISION

A. An Inexpensive Inner Coating for TRANSITE Pipe (Swensen)

A polystyrene coating has been formulated which has shown more than the required resistance to ultra-violet and which meets the AWWA requirements for water-pipe coating. Long-term adhesion has been satisfactory to date (two months exposure). A Commercial Recommendation will be issued on or about February 15.

B. Effect of Water Flow through TRANSITE Pipe (Swensen)

Plant Engineering has estimated the costs of constructing a system to study the effects of flow and water composition on TRANSITE pipe to be approximately $280,000. In view of the high estimated cost, the proposed program and system are being revised.

3. FIBER GLASS INSULATIONS

A. Residue from Flow of Air through Fiber Glass Ducts, etc. (Hannes)

As mentioned in the December 13 report, the extensive test program is continuing. Data will be available about March 1.

4. BUILDING PRODUCTS DIVISION

A. Degradation Products of Asbestos Felt Built-Up Roofs (Trice)

Based on specifications and quotation from Instrument Development Co., Reston, Virginia, an appropriation request in the amount of $25,000 will be submitted by January 27 for an environmental chamber. This appropriation will be accompanied by a detailed program and an estimated total

cost. Delivery of the chamber is promised for 16 weeks after receipt of order.

B. Degradation Products of Asbestos-Cement Materials (Trice)

Samples of Steam Cured TRANSITE (COLORLITH) showed a decrease in thickness of less than 0.003-in. after at least 12 years vertical exposure on the REC test decks. (Normal Cured products showed a decrease in thickness of 0.001" - 0.020".)

The program of finding and examining exposed samples has been expanded to include wet and dry process as well as normal and steam cured samples.

5. FLOORING DIVISION

A. Wear Products from Flooring Materials (Trice)

A program is being prepared to utilize a modification of the type of environmental chamber being recommended for the asbestos-roofing program (Item 4A above).

6. CORPORATE RESEARCH

A. Organic Material in Asbestos Fibers (Speil)

Research Memorandum #M411-489 (12/29/66) presented a review of the literature concerning the occurrence and properties of benzopyrene in the atmosphere from smoking, exhaust fumes, overheated tar and asphalt, the general burning of rubbish, coffee roasting, etc. The outer layer of a "well done" charcoal-broiled steak was found to contain a substantial quantity of benzopyrene.

Samples of asbestos have been sent to Case Institute of Technology and Mount Sinai Hospital for experimental work they are conducting on their own.

Work has continued with Analteck Inc., on improving methods of identifying trace organic substances present in asbestos. Most recent information shows Jeffrey fiber from a paper bag to contain 19-31 mg organic material/100 gm of fiber, whereas samples from a jute bag showed 4 mg at the center and 16 mg adjacent to the surface of the bag -- the reverse of information obtained with Blue fiber. Additional tests are in progress.

We cooperated with the Veterans Administration Hospital, Hines, Illinois, who are studying the relationship between asbestosis and mesothelioma, where their work with mice showed heat-treated asbestos gave a more toxic reaction than unheated asbestos.

DEFENDANT'S EXHIBIT

Hamster lung tissue samples submitted by the Health Service Institute, Fairleigh Dickinson University, examined by electron microscopy, showed the presence of both amosite and chrysotile asbestos.

W. M. MacAlpine

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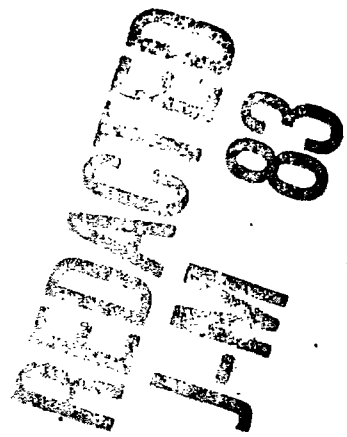
cc-C. B. Burnett, GHQ
F. J. Solon, GHQ
K. W. Smith, GHQ
F. L. Pundsack



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FROM: JACK SOLON

1/4/67

Dr. K. W. Smith
H. M. Jackson
W. P. Raines
Carl Thompson, H & K

For your Environmental Health Library.

FJS

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