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March 3, 1969

PLAINTIFF'S EXHIBIT FK-94

MEMORANDUM

TO: John H. Davies - A.A.A.
Clinton I. Read - A.A.A.
W. B. Evans - Philip Carey
James A. Suddeth - Philip Carey
Clarence M. Brasher - Philip Carey
S. D. Weaver - Cement Asbestos
Harold McNabb - Certain-teed
M. S. Davis, Jr. - Certain-teed
A. E. Alpine - Certain-teed
James D. Moran - Flintkote
Walter N. Knorr - Flintkote
James A. Main - Flintkote
J. G. Hall - GAF
Harry Messler - GAF
Edward C. Cerny, Jr. - Johns-Manville
Clifford L. Sheckler - Johns-Manville
A. H. Fay - National Gypsum
Frank H. Zimmerman - National Gypsum
J. Steiner - Supradur
K. Fred Netter - Supradur
Kurt Schwarz - Supradur
C. P. Kipp - U.S. Gypsum
Gerhardt R. Krug - U.S. Gypsum
A. Schmidt - U.S. Gypsum
E. Morrow - U.S. Gypsum
N. D. Lowe - U.S. Gypsum
Ivan Sabourin, Esq. - Quebec Asbestos Mining Association
Dr. George W. Wright - St. Luke's Hospital, Cleveland

Gentlemen: Re: Health & Safety Council

I enclose my draft minutes of the meeting of the Health & Safety Council held in New York on February 18, 1969. Please note that the next meeting of the Council is tentatively scheduled for Tuesday, May 20th, at the Biltmore Hotel in New York.

Yours sincerely,

Minutes of the Meeting of the
Health & Safety Council/
Asbestos Cement Products Association
February 18, 1969

A meeting of the members of the Health & Safety Council of the Asbestos Cement Products Association was held pursuant to notice at the Biltmore Hotel, New York, New York, at 9:30 A.M. on February 18, 1969.

The following persons were present:

C. I. Read	Atlantic Asphalt & Asbestos, Inc.
C. M. Brasher	Philip Carey
S. D. Weaver	Cement Asbestos
Harold McNabb	Certain-teed Products Corp.
J. A. Main	The Flintkote Company
W. M. Knorr	The Flintkote Company
Harry Messler	GAF Corporation
E. C. Cerny, Jr.	Johns-Manville Sales Corp.
C. L. Scheckler	Johns-Manville Sales Corp.
F. H. Zimmerman	National Gypsum Company
J. Steiner	Supradur
K. Schwarz	Supradur
C. P. Kipp	U. S. Gypsum
A. Schmidt	U. S. Gypsum
E. Morrow	U. S. Gypsum
N. D. Lowe	U. S. Gypsum
Ivan Sabourin, Esq.	Quebec Asbestos Mining Association
Dr. George W. Wright	St. Luke's Hospital, Cleveland
Bradley Walls, Esq.	Davies, Hardy, Loeb, Austin & Ives

The meeting was called to order by the Chairman, Mr. James A. Main. The minutes of the last meeting of the Council held on November 14, 1968, which had been previously mailed to all members, were upon motion duly made and seconded, unanimously approved.

Mr. Cerny delivered the Treasurer's report and stated that the present balance of the Council is $500.01. Mr. Cerny's report was accepted. Mr. Cerny also prepared a budget for the calendar year 1969 as follows:

Miscellaneous Expenses, including travel	$ 500.
Administration	1,000.
Legal	2,000.
	$3,500.

Mr. Cerny stated that meeting expenses are to be borne by members on a pro rata basis, printing expenses, if any, are

to be borne on a pro rata basis and, therefore, these expenses were not included in the budget. Mr. Cerny proposed that each member company of the Council be assessed $350 to provide for the 1969 budget.

On motion duly made and seconded, the budget was unanimously approved as submitted. The Chairman, Mr. Main, then polled each member company for its approval of the $350 assessment. All members polled agreed to the assessment.

Mr. Main spoke briefly on the background of the concern in the asbestos industry with health and safety practices. He noted that the Asbestosis Research Council in England has already developed four Recommended Codes of Practice entitled: (1) For Handling, Working, and Fixing of Asbestos and Asbestos Cement Products in the Building and Construction Industries; (2) On Precautions to be taken when Cutting, Drilling or Machining Asbestos Cement and Asbestos-based Boards in the Shipbuilding Industry; (3) For Handling Consignments of Asbestos Fiber in British Ports; (4) For Handling Asbestos Fibers used in Thermal Insulation. Copies of these Codes were distributed to the members in attendance. Mr. Main also referred to the technical note prepared by the Asbestosis Research Council entitled "The Measurement of Airborne Asbestos Dust by the Membrane Filter Method". Copies of this technical note were distributed to members in attendance. Mr. Main also referred to the memorandum on Dust Sampling and Counting dated December 9, 1968 prepared by M. Lachance, Dust Control Engineer of the Quebec Asbestos Mining Association. Copies of this memorandum were also distributed.

Mr. Main noted that there had been developments subsequent to the meeting of the Council held on November 14, 1968. In particular, he referred to the speech by Dr. Selikoff at the Dallas meeting of the American Association for the Advancement of Science; the study program of the Institute for Occupational and Environmental Health in Montreal supported by QAMA and the studies of the Industrial Hygiene Foundation.

Mr. Scheckler reported that no progress had been made on the proposed safety manual since the last meeting of the Council because so many developments had occurred that additional time was required to assess them. Mr. Scheckler noted that the American Congress of Governmental Industrial Hygienists had reduced permissible particles in its 1969 industrial standard from 5 million to 2 million particles per cubic foot of air. He stated that Johns-Manville's goal is 1 million particles per cubic foot.

Mr. Scheckler observed that the proposed British regulations are becoming more stringent; that the U. S. Department of the Navy is strongly advocating the wearing of respirators by all men doing asbestos work. He stated that new types of

respirators are needed because the best respirators available may be satisfactory for particulate matter, but they are not satisfactory for asbestos fibers. Mr. Scheckler described to the meeting the membrane filter method being developed by J-M to evaluate the amount of dust their men breathe. A meeting of the Subcommittee on the proposed pamphlet will be convened following this meeting.

The members of the Subcommittee on the pamphlet on Recommended Health Safety Practices for Handling and Applying Asbestos Cement Products are:

A. E. Alpine	Certain-teed
Harry Messler	GAF
F. H. Zimmerman	National Gypsum
C. L. Scheckler	Johns-Manville

Some discussion was held on the purposes and propriety of issuing the proposed booklet. It was noted that as to asbestos cement siding, there is very little problem in the field, and that the end use of the materials should guide the purposes of the booklet.

In particular, it was noted that a differentiation must be made in the two groups that are to be reached by such booklets. One group can be envisioned as consumers and the other group can broadly be called asbestos workers.

Mr. Cerny remarked that the proposed booklet was originally contemplated for use among fabricators and was expected to outline health/safety measures for workers and not necessarily for consumers. Mr. Cerny stated that one purpose of issuing such booklets on health/safety measures would be limitation of liability of the manufacturers. He stated that there has been a tendency for employees to sue their fabricator employers as well as the manufacturing suppliers. In such suits, there is no restriction to the recovery limits of Workmen's Compensation and other manufacturers are often impleaded as third-party defendants. Mr. Cerny stated that any booklets prepared and issued by the Council should be backed with a strong public relations effort that would secure write-ups of interviews and other releases for trade press magazines. Public relations efforts should also keep insurance carriers advised of what the industry is doing.

Following Mr. Cerny's remarks, the Council authorized Mr. Main to appoint a Subcommittee on Litigation, Legislation and Insurance. Mr. Main will advise the appointees to that Subcommittee directly and will report at the next meeting of the Council.

Mr. Zimmerman reported that there had been no meeting

of the Subcommittee on In Plant Environmental Control and that this Subcommittee would meet following the remarks of Dr. Wright. The In Plant Environmental Control Subcommittee was authorized at the November 14th meeting of the Council and is to have one representative from each member of the Council. Mr. Main reported the following appointments by members of representatives to the In Plant Environmental Control Subcommittee:

C. I. Read	Atlantic Asphalt & Asbestos
A. E. Alpine	Certain-teed
W. N. Knorr	The Flintkote Company
Harry Messler	GAF Corporation
C. L. Scheckler	Johns-Manville
F. H. Zimmerman	National Gypsum
K. Schwarz	Supradur
G. R. Krug	U. S. Gypsum

Mr. Weaver of Cement Asbestos and Mr. Brasher of Philip Carey advised Mr. Main that appointments of representatives to the In Plant Subcommittee from their respective companies would be made shortly.

Mr. Main introduced to the Council Dr. George W. Wright Director of Medical Research, St. Luke's Hospital, Cleveland, Ohio. Dr. Wright addressed the meeting on "A Current Assessment of Asbestos as an Environmental Health Problem".

(For the benefit of the members in attendance who requested it, there follows a brief summary of the highlights of Dr. Wright's talk. Dr. Wright has reviewed and approved this summary.)

Dr. Wright remarked that his appearance before the Council was appropriate because information available to him indicates that one-fourth of the asbestos used in the United States goes into asbestos cement products. He stated that although studies had been made on the biological effects of asbestos fiber when such fiber is not bonded (i.e. textile, milling, mining and insulation operations) examination and study of the effects of such fiber when incorporated in asbestos cement products would appear to be warranted, considering the volume of asbestos used in these products.

By way of historical background, Dr. Wright indicated that British Government statistics in the 1930's provided information showing that 80% of male workers in the asbestos textile trades over a period of twenty years or more had asbestosis. Dr. Wright noted that 95% of particles which pass through human air passages is expelled. By analogy, asbestos fibers probably do the same. Of the fibers remaining in the lung, the human body coats some of these with protein and iron. Because fiber glass and graphite particles are also subjected

to similar phenomenon, these coated particles are referred to as "ferruginous bodies".

After substantial exposure for twenty years to asbestos dust, 75% of the workers so exposed will develop scars detectable by X-rays. Some workers develop these scars sooner than others. The formation of scars constitutes the disease known as asbestosis. As these scars develop, the pipes through which blood flows through the lungs are destroyed. Death can ultimately result. The figures in Great Britain as of 1930 proved that the mortality rate or length of life of textile workers in Britain is shorter. Since then, the life span of such asbestos textile workers has improved because the number of fibers in the air has been reduced.

Dr. Wright explained that many lessons had been learned from studies involving silica. As a result of counts made of silica particles, and experience that silica particles measuring 5 microns or under in diameter were those that stayed in the lungs, limits were established of maximum concentration of silica particles in industrial settings as early as 1939. At that time, maximum concentrations were 5 million particles per cubic foot.

Dr. Wright outlined the Lynch studies published in 1935 which associated bronchogenic cancer with asbestosis. These studies were fortified by further studies made in Manchester, England in 1950 by Dr. Doll. Dr. Doll's studies identified 11 cases of bronchogenic cancer among 113 workers in an asbestos textile factory.

Subsequent studies in Canada done by the Industrial Hygiene Foundation did not duplicate the Manchester results.

Subsequently, studies were done by Drs. Selikoff and Hammond among insulation workers. These studies claimed that the incidence of lung cancer is 12 times higher among insulation workers than among non-insulation workers. Dr. Wright noted that in those studies no bronchogenic cancer was found among non-smokers.

Dr. Wright explained in brief outline some theories of carcinogens and indicated that there are some who are exploring the concept of co-carcinogens - that is to say, that asbestos fibers and cigaret smoking may act together to become cancer inducing agents. It is known, for example, that bronchial cancer occurs 8 times more frequently among smokers than non-smokers and 90 times more among smokers who are also insulation workers than among non-smokers who are not insulation workers.

In passing, Dr. Wright suggested that it might be

possible for employers to limit employment in insulation work only to non-smoking workers. Dr. Wright explained that the policing of such employment conditions could pose many practical problems.

Dr. Wright also explained the findings of certain studies made among workers in South Africa where a cancerous growth was noted to appear on the outer surfaces of the lungs. These studies indicated that these cancers, or mesothelioma, occurred among South Africans exposed to crocidolite. He noted, however, that there were differences between statistics compiled in the Transvaal and in the northwest Cape. He also stated that cases of mesothelioma occurred among workers as well as among people who live near crocidolite workings (so-called "neighborhood cases").

Finally, Dr. Wright sketched some developments being made in studies of gastrointestinal cancer which may indicate the development of cancer following the swallowing of asbestos particles or fibers by asbestos workers. Dr. Wright explained that considerable research needs to be done in this field.

In response to a question concerning proper practices of industrial hygiene and the detection of fibrosis and of bronchogenic cancer, Dr. Wright stated that employers should conduct X-rays of all workers exposed to asbestos every two years commencing before the fifth year of employment in such exposures. Dr. Wright also explained some of the difficulties involved in running tests on sputum samples; stating that six samples were required from each worker in order to achieve a true reading with regard to cancer.

After a few general questions posed by members of the Council, the meeting adjourned.

Respectfully submitted,

Bradley Walls