

MINUTES

of the

SPRING MEETING

NATIONAL INSULATION MANUFACTURER'S ASSOCIATION
Pocono Manor, Pa.

April 27, 1970

The Meeting was called to order at 9:00 A.M. by President P. D. Kaley,
with the following in attendance:

Burlington Industries New York, N. Y.	G. T. Overholt, Jr.
Certain-Teed/St. Gobain Bala Cynwyd, Pa.	R. L. Strickland W. D. O'Neill
Johns-Manville Sales Corp. New York, N. Y.	R. E. Naylor C. Sheckler
Keene Corp. Princeton, N. J.	M. M. Wilson
Owens-Corning Fiberglass Corp. Toledo, Ohio	J. F. Vyverberg D. Glosser
Pittsburgh Corning Corp. Pittsburgh, Pa.	J. H. Price, Jr.
PPG Industries Pittsburgh, Pa.	P. D. Kaley
Cadwalader, Wickersham & Taft	J. Boyer
NIMA	J. M. Barnhart

APPROVAL OF MINUTES

A motion was made, seconded, and passed that the Minutes of the
Annual Meeting of November 2, 1969, as bulletined by the
Association be approved.



WIRE INDUSTRY SHIPMENTS
BY PRODUCT GROUP
NET DOLLAR VALUE
1960 - 1969

PRODUCT GROUP "A"	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
PIPE										
BS Magnesia	2,520,920	1,933,894	1,506,090	1,319,180	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Calcium Silicate, Etc.	12,020,551	11,005,975	12,568,719	12,628,460	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
TOTAL	14,541,471	12,939,869	14,074,809	13,947,640	15,781,442	16,451,836	17,338,066	18,054,066	18,074,337	18,077,831
ROTOR										
BS Magnesia	6,009,004	847,932	712,521	575,900	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Calcium Silicate, Etc.	3,443,261	6,822,282	6,059,264	6,321,312	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
TOTAL	9,452,265	7,670,214	6,771,785	12,097,212	6,470,018	6,485,827	6,236,326	6,511,819	6,510,319	6,511,819
CEMENT										
BS Magnesia	78,003	20,572	63,630	69,855	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Calcium Silicate, Etc.	22,205	18,873	(NA)	64,855	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
TOTAL	100,208	39,445	63,630	134,710	64,855	64,855	64,855	64,855	64,855	64,855
309 TOTAL	24,935,726	20,710,420	18,702,714	19,512,727	16,826,975	21,244,076	21,561,320	21,205,665	20,176,651	21,146,260
PRODUCT GROUP "B"										
ROTOR & CALCULATED										
BS Magnesia	278,403	197,174	339,035	777,775	337,626	165,384	130,796	110,260	92,017	(NA)
Calcium Silicate, Etc.	1,899,525	1,879,135	2,020,800	1,970,173	1,786,743	1,765,646	1,125,310	853,270	950,665	(NA)
TOTAL	2,177,928	2,076,309	2,359,835	2,747,948	2,124,369	1,931,030	1,256,106	963,530	1,041,680	(NA)
CEMENTS										
BS Magnesia	1,003,476	783,278	823,695	641,704	830,899	732,504	440,595	418,811	433,695	(NA)
Calcium Silicate, Etc.	1,810,129	1,401,015	1,735,296	1,171,517	1,025,561	1,090,739	762,234	791,612	800,549	(NA)
TOTAL	2,813,605	1,984,293	2,558,991	1,813,221	1,856,460	1,823,243	1,202,829	1,210,423	1,234,244	(NA)
ROTOR & CEMENT										
BS Magnesia	10,912,878	10,218,792	10,299,950	11,500,918	11,899,340	12,533,309	13,082,309	13,619,219	12,695,005	11,769,084
Calcium Silicate, Etc.	312,547	1,035,981	921,051	1,150,918	1,267,629	1,288,555	1,381,370	1,434,370	1,436,595	19,250,125
TOTAL	11,225,425	11,254,773	11,220,001	12,651,836	13,166,969	13,821,864	14,463,679	15,053,589	14,131,595	19,269,209
ROTOR & CALCULATED										
BS Magnesia	20,607,210	23,841,665	23,661,733	24,924,342	22,551,503	28,197,751	30,082,751	31,494,525	31,892,575	33,450,370
Calcium Silicate, Etc.	7,501,018	7,790,087	7,323,927	7,931,175	7,927,953	8,313,490	8,369,382	8,764,658	8,764,658	9,342,634
TOTAL	28,108,228	31,631,752	30,985,660	32,855,517	30,479,456	36,511,241	38,452,133	40,259,183	40,657,233	42,793,004
CEMENT										
BS Magnesia	2,621,293	2,616,103	2,965,598	3,029,065	3,495,650	4,085,261	2,606,490	3,307,679	3,790,757	6,177,009
Calcium Silicate, Etc.	155,000	110,946	149,121	170,175	80,186	75,176	...	...	...	...
TOTAL	38,434,005	60,647,325	60,365,551	63,640,656	63,279,592	69,092,315	65,431,732	68,771,661	70,785,185	70,785,185
GRAND TOTAL	78,369,751	91,306,713	99,667,915	83,661,617	88,606,572	90,336,615	96,993,052	92,981,326	90,961,820	91,976,068

Since fewer than three members report shipments in those categories, Price, Waterhouse excludes them from the Industry totals.

Recommendation: Drop those products from the reporting forms to reduce their bulk and obviate the reporting and collection of useless data.

3. There are reported discrepancies in the list of members' product trade names, by report category.

Recommendation: Mr. Barnhart ask each member for an up-to-date list of trade names for publication to all members.

4. Delays of several months in feed-back from Price, Waterhouse during 1969 were reportedly caused by one member's data processing difficulties. That member is having similar trouble now but expects to catch up by the end of April.

Recommendation: All members determine if they can report by the end of the following month; if so, revise the instructions for reporting accordingly.

5. A table of industry shipments for the ten years 1960 through 1969 is attached and made a part of this report.

Note: After adjusting 1968 for those items unreported in 1969, industry shipments grew from \$88.7 million to \$92 million, growth of 3.7%.

REPORT OF TECHNICAL & RESEARCH COMMITTEE

J. M. Barnhart reported as follows:

Since the November 2, 1969, NIMA Annual Meeting, the technical activities have included the following:

ASTM C-15, PHILADELPHIA, PA.
December 22, 1969

A special Committee Meeting was held to discuss the potential hazards of all insulation materials in manufacturing, installations, testing, and handling of the materials. The objective of the Special Committee to recommend to the C-16 Executive Committee what actions should be taken to minimize the hazards associated with thermal insulations.

NYSDPW, ALBANY, N. Y.
December 23, 1969

This agency was visited for the purpose of obtaining copies of the recently revised State Standard Specification as it relates to thermal insulation.

ASHRAE MEETING, SAN FRANCISCO, CALIF.
January 19, thru 23, 1970

Technical Committee Meeting 2.4 of ASHRAE was attended. Rewrites of Chapter 26 (Heat Transmission Coefficients) and Chapter 18 (Thermal Insulation and Water Vapor Barriers) for inclusion in the 1971 ASHRAE Guide and Data Book were discussed and assignments made.

T & R COMMITTEE MEETING
New York, N. Y., March 6, 1970

The molded Section and Mineral Fiber Sections of the T & R Committee met and the following items were included on the Agenda:

1. ASTM Specifications
 - (a) Stress Corrosion
 - (b) ASTM C533
2. Temperature Limits
3. N. Y. State Specifications
4. MIL - Standard 769

ASTM C-16 COMMITTEE MEETING
Atlanta, Ga., March 8, 9, 10, 11, 1970

This meeting was attended and the following subjects were discussed:

1. Stress Corrosion
2. Proposed Revisions to
 - (a) ASTM C 533
 - (b) Various Mineral Fiber Specifications

ASHRAE COMMITTEE 2.4 MEETING,
Washington, D. C., April 22, 1970

This Committee Meeting was attended for the purpose of revising chapter "Design Heat Transfer Coefficients" of The ASHRAE GUIDE.

MOLDED SECTION COMMITTEE REPORT

In the chairman's absence J. M. Barnhart reported on the activities of the Committee in accordance with the Minutes of their meeting, which is attached hereto and made part of these minutes.

MINERAL FIBER SECTION REPORT

In the chairman's absence, J. M. Barnhart reported as follows:

Insulation K-Values

This project was completed at the March 6, 1970, meeting in New York. The K-Values of glass fiber insulation were firmly established, and it was based on nine micron fibers. These values plus 10% are to be used in writing military and federal specifications.

Insulation UL Listing for Fire Hazard Classification

This project was also completed on March 6, 1970, at the meeting. Underwriters issued a letter on the subject of classifying insulation by category instead of the usual ratings for flame spread, fuel contribution and smoke. The first insulation classification will be FHC 25/50. This was well received by all concerned, and to date two members are presently using this system. This will give more freedom in our testing, as we will not be required to do the number of tests required for classification, and, likewise, the labelling of our product will be much simpler.

Temperature Limits

The Temperature Limits Tests were conducted by Gustin Bacon and PPG and the conclusions reached from these tests indicate that when the binder is completely removed from the insulation in contact with the hot surface and the product vibrated in accordance with the tests described in U.S. Coast Guard 32MA3C the thickness of insulation is reduced due to the felting action of the vibration. However, some of the members felt the vibration cycle was too severe and more research should be done as to what vibration cycle should be established. Also, a warning should be incorporated in each company's literature similar to that shown in Johns Manville Flame Safe Glass Fiber Pipe Insulation brochure.

Military Specifications

The committee members will attempt to combine Military Specifications MIL-I-2818, MIL-I-15475, MIL-I-16411, MIL-I-22344, MIL-I-22023, MIL-I-23128 also the committee Federal Specification HHI-558, HHI-545 and MIL-I-742.

Thermal Conductivity Test

This project has been on the books for some time. An initial study was made by the participating laboratories and correlation was reached on a 9 lb. per cu. ft. glass fiber up to 150° F. mean temperature; however, no correlation was reached on other samples at higher mean temperature. The program was started again with renewed effort. Each company exchanged information on their equipment to determine what could be done to standardize the unit and the second phase of the program was to prepare a high temperature standard for calibration and a Round Robin study. Two members were scheduled to prepare these samples, however, this work was never completed.

It was agreed that this program be tabled.

REPORT OF THE DUCT COMMITTEE

J. M. Barnhart reported on the activities of the Committee in accordance with the Minutes of the Meeting which is attached hereto and made part of these Minutes.

REPORT OF THE OCCUPATIONAL HEALTH & SAFETY COMMITTEE

In the chairman's absence, J. M. Barnhart reported as follows:

A joint committee meeting was held on Wednesday and Thursday, March 25, and 26, in the Fiberglas Tower in Toledo. Representatives of Johns-Manville, PPG, Certain-Teed/St. Gobain and OCF were present, as well as Mr. Jack Barnhart of NIMA.

The items discussed were the fibrous glass studies being carried out by Dr. Clark Cooper of the University of California, the duct study being carried out by Professor Cholak of Kettering, and the status of the necropsy study being carried out by Dr. Paul Gross of the Industrial Hygiene Foundation. Each of these studies will be detailed below.

FIBROUS PARTICLES IN AMBIENT AIR - Cooper

The revised protocol of this study, which was received on March 12, was reviewed and approved. This study is underway and is expected to be completed by Mid-year.

OCCUPATIONAL & OTHER ENVIRONMENTAL EXPOSURES TO FIBROUS GLASS VENTILATION SYSTEMS - Cooper

The completed report of this study was reviewed in detail and the results were found to be favorable. It is felt that the report should be completely edited, and some areas rewritten by Dr. Cooper in order to emphasize important points and reduce the document's length. We will be meeting with Dr. Cooper on Thursday, April 16, to discuss the matter.

THE ASBESTOS WORKERS STUDY - Cooper

The study was only briefly discussed. We have not received the final report. It is expected we will receive the report about the first of April. This study will be discussed with Dr. Cooper at the April 16 meeting. It is hoped that it can be finalized at that time.

SHEET METAL WORKERS STUDY - Cooper

The proposed protocol was discussed only briefly since it is anticipated that this study should complement the asbestos workers exposure study. The protocol is also expected to be finalized in Chicago with Dr. Cooper. It is anticipated that this study will begin after the completion of the Ambient Air Study and should be completed by late Fall, 1970.

NECROPSY STUDY - Gross

It was brought out during the meeting that the four fibrous glass manufacturers have now funded the study. Dr. Gross has received all of the necessary necropsy material and the study is progressing smoothly.

KETTERING STUDY - Cholak

A draft copy of the completed Kettering Duct Study was reviewed and accepted as written with only minor changes. The suggested bibliographic reference will be added to the report. This reference will be forwarded to Professor Cholak by Mr. Barnhart.

It was brought out during the meeting that, as a result of the studies, Kettering and at the University of California, objective documented data is now available which lends perspective regarding airborne concentrations of fibrous glass in air handling systems containing fibrous glass and work exposures to men installing fibrous glass materials. If called upon, Dr. Cooper can give objective and effective reporting on his findings and conclusions regarding the fibrous glass exposures and health.

REPORT OF THE EDUCATION & LEGISLATION COMMITTEE

Chairman C. Shackler reported as follows:

Legislation to eliminate the use of fibrous glass ducts, and duct liner in air transmission systems has been extremely active during 1970 to date. Some of the major legislative activities are as follows:

KANSAS BILL H-1642 - HEARING 2/12-16/70

This Bill was introduced by James L. Francisco. Representative Francisco told our NIMA representative that the Bill was introduced at the request of Dr. Irving Selikoff through the Wichita International Association of Heat and Frost Insulators and Asbestos Workers.

Proponents for the Bill were Dr. Irving Selikoff, Mt. Sinai Hospital, and two representatives of the Heat, Frost and Asbestos Workers. One Asbestos Worker was R. Tucker, and the other un-named.

The Asbestos Workers testimony was brief and very general in conjunction with costs, air pollution, clean interior air, and the contamination caused by fibrous materials installed next to the air stream.

Dr. Selikoff testified for approximately one hour. He reviewed his routine statistics on the health studies of the insulators. He discussed asbestos at length and then by inference attempted to relate the same health hazards to fibrous glass as to asbestos.

There were over twenty people appeared in opposition to the Bill. Most of these people appeared by arrangement of our NIMA Committee. The Sheet Metal Workers, Sheet Metal Contractors, Engineers, Architects, and our Committee members testified. Dr. Paul Gross, Director of Research, Industrial Hygiene Foundation of America, testified as our NIMA medical expert.

The Kansas Legislative Committee was comprised of 19 members. There was a 16 to 3 vote in opposition to the Bill. A House Concurrent Resolution No. 1106 was then introduced to place the Bill in a study committee for report and recommendations to be submitted in the 1971 legislature.

We immediately went to work on the Resolution and was advised on 3/9/70 that the Resolution was defeated and no interim study will be held. Unless reintroduced, the Bill in Kansas is dead for the current year.

MASSACHUSETTS BILL H-1074 - HEARING 3/2/70

This Bill was introduced by David C. Ahearn. We have been unable to determine at who's request Representative Ahearn introduced the Bill. We were advised that the Massachusetts local of the Heat, Frost and Asbestos Workers were not aware that the Bill would be introduced again in 1970 inasmuch as a similar Bill introduced by Ahearn at the request of the Asbestos Workers was defeated in 1969. The inference was that someone from the Asbestos Workers in Washington had requested Ahearn to sponsor the 1970 legislation but had not conferred with the Massachusetts local.

No one appeared or communicated as proponents of the Bill.

Six people were present in opposition to the Bill. We did considerable background work with the Chairman of the House Legislative Committee through legislative counsel. When no one appeared in favor of the Bill, the House Chairman asked us to summarize our testimony. C. L. Sheckler summarized for the NIMA Committee. J. Connelly, International Vice-President for the Sheet Metal Workers and a representative for the Sheet Metal Contractors briefly voiced their opposition to the Bill.

We had been advised that Dr. Irving Selikoff would definitely testify in Massachusetts as a proponent of the Bill. We, therefore, had Dr. R.T.P. deTreville, President of the Industrial Hygiene Foundation of America, present to testify as our medical expert. Written statements and supporting publications were submitted in lieu of testimony.

The Committee Chairman has advised us that the Bill is dead for 1970.

CALIFORNIA BILL A-384

This Bill was introduced by L. Townsend. Assemblyman Townsend is from the Torrance District - Los Angeles area.

Our NIMA Committee recognized that the California Bill was of the utmost importance to A. Hutchinson, President of the Heat, Frost and Asbestos Workers. This was obvious by Mr. Hutchinson's editorial, Dr. Selikoff's Insulation Industry Research Fund Report, and the physical layout of both in the February 1970 issue of the Asbestos Workers publication.

CALIFORNIA BILL A-384 (Cont'd)

We also recognized that if this Bill went to a public hearing in the California Legislature, we would be faced with our most difficult defense to-date. We, therefore, worked with the West Coast Asbestos Workers, Sheet Metal Workers, and Assemblyman Townsend, Sponsor of the Bill. In addition, we also worked closely with the California Manufacturers Association. Our objective was to prevent the Bill from coming to a public hearing.

Assemblyman Townsend requested the Bill to be "taken off calendar". He indicated this was a permanent measure which would effectively kill the Bill. He claims the Asbestos Workers took advantage of him by having him introduce legislation which involves a jurisdictional matter.

Assemblyman Townsend took the Bill off calendar, however, an Assemblyman H. Johnson, has revived it. Johnson claims that his purpose is to amend it by removing reference to fibrous glass and using it for another purpose. This has not been done to-date and we are currently working on the matter.

Our NIMA Committee is fully prepared for a public hearing. We have our people and presentations ready. Our medical expert is on call. The Sheet Metal Workers, Sheet Metal Contractors and a number of other construction organization representatives are also standing by.

KENTUCKY BILL H-743

This Bill was introduced by Thomas Ray. We were advised of this legislation on March 17th. We have no background regarding who requested the legislation to be sponsored.

Through our contacts in Washington, we reached the Recording Secretary of the Sheet Metal Workers in Kentucky. He, in turn, contacted Representative Norbert Bloom, Speaker of the House. The Recording Secretary has assured us that Mr. Bloom will withdraw the Bill and it should be considered dead. The Kentucky legislative session ended March 31st, therefore, any Bills not brought out of Committee by that date, automatically die.

NEW YORK CITY ENVIRONMENTAL PROTECTION ADMINISTRATION REGULATIONS -
NO HEARING SCHEDULED

Dr. Jacob Friedlander, Executive Assistant of the Environmental Control Board, New York City Environmental Protection Administration, has advised us that there is a regulation being considered that will eliminate "asbestos and all other fibrous materials" that can become airborne from air transmission ducts.

We questioned the background and reason for this regulation. He would not reveal the source of the recommendation but indicated that Dr. George James, Dean of Mt. Sinai is a member of the Control Board.

A meeting was held with the Commissioners of the Environmental Protection Administration, Department of Air Resources, and Department of Water Resources. C. L. Sheckler reviewed the fibrous glass medical-scientific research studies and results, plus other background information. As a result of this meeting, the EPA agreed to remove the section of their proposed regulations regarding fibrous glass in air transmission systems. The interim regulations have been promulgated with no reference to fibrous glass.

We are following up this matter regarding a Public Hearing prior to promulgation of permanent codes, rules and regulations by the EPA - New York City.

In addition to the foregoing legislation, there has been extensive correspondence and communications with contractors, school boards, hospital boards, engineers and architects; plus housewives and customers in relation to health hazards of fiber glass.

The fear of fibrous glass as a health hazard among the general public appears to be more serious than asbestos, and gaining momentum. This is the situation in spite of the documented evidence that fibrous glass insulation is an inert material with an ACGTH threshold limit value of nuisance dust.

The material being published by Mr. Hutchinson, and the potential dangers being publicized by Dr. Selikoff, is having an adverse effect in the entire fibrous glass industry, including home insulation, textiles, as well as duct board, liner, and ceiling tile.

ASTM - C-16 PROPOSED COMMITTEE ON POTENTIAL HAZARDS
ASSOCIATED WITH THERMAL INSULATIONS

Subject Committee Meeting was held 12/22/69. The scope of the proposed Committee was to survey the field of insulation in regard to potential hazards in manufacturing, installing, testing, handling and use of all materials covered by C-16.

C. L. Sheckler, W. Gubar and J. Barnhart attended, representing the interest of the NIMA Education and Legislation Committee. Extensive medical-research studies, litigation, and other complexities involved in substantiating toxicological data was discussed, and it was determined that in view of the work underway, the ASTM C-16 would take no further action except to keep informed.

FIBROUS GLASS POSITION PAPERS

Fibrous Glass Position Papers have been prepared by this Committee. They are entitled "Health Aspects of Fibrous Glass in Heating or Air-conditioning Ducts"; "Questions and Answers about Fibrous Glass in Heating and Air Conditioning Ducts"; and "Summary of Documented Medical Evidence on the Health Aspects of Fibrous Glass". In addition, a back-up file of complete information and publications on the subject of fibrous glass has been compiled. This information has been and will be used to take a positive approach concerning questions and problems related to health and toxicology.

PUBLICATIONS AND PRESENTATIONS

This Committee is currently preparing a paper for publication concerning health aspects of fibrous glass.

A presentation will be made at the NICA General Meeting by J. Barnhart and C. L. Sheckler on the subject of NICA-NIMA relationship for occupational health and safety.

Both of the foregoing communication projects will be of a positive nature to emphasize insulation Manufacturers activities in the area of health and safety.

GENERAL

The Education and Legislation Committee has been working closely with the Health Committee on medical-scientific research projects sponsored by, or of, interest to NIMA.