

ASBESTOS TEXTILE INSTITUTE MINUTES

1968

MS 005621

MT-005027

**PRODUCED
JM - 83**

Minutes

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Asbestos Textile Institute
Technical Committee Meeting
February 7, 1968

The meeting was held at the Roosevelt Hotel in New York City.

<u>IN ATTENDANCE:</u> Phil Rogers	- Johns-Manville
G.E. Houghton	- Garlock, Inc.
D.T. Austin	- Uniroyal, Inc.
Wm. Maaskant	- American Asbestos Textile Corp.
D.F. Quealy	- American Asbestos Textile Corp.
Ed Morris	- U.S. Rubber Co.
J.D. McCluer	- H.K. Porter Co.
P.O. Nicodemus	- General Electric Co.
George Harris	- H.K. Porter Co., Inc.
Paul Smith	- ASTM
John Hawkins	- Raybestos-Manhattan, Inc.

SUBJECTS DISCUSSED:

ASTM D 1061: The asbestos lap specification was completed at this meeting. The Editorial Committee of ASTM suggested several changes in format which were not acceptable to the Technical Committee. Other minor changes were incorporated into D 1061 and this specification will be published in October without further changes.

ASTM D 628: This tubular sleeving method as presently published covers Test Methods only. The sections pertaining to test methods have been completely rewritten. It was decided that in addition to test methods that this method would also include specifications and tolerances. These additional sections will be incorporated into the method after consideration by the committee.

The Technical Committee met briefly with the Fiber Testing Committee to hear their report on the Round Robin test series on magnetic rating recently completed by that committee. These tests considered asbestos fibers only.

A joint session was held between ASTM Committee A-4 and the Technical Committee on February 8. Mr. Nicodemus acted as chairman and matters of mutual interest were discussed. A Round Robin test will be conducted on the magnetic rating of asbestos products - lap, roving, yarn, tape, and cloth. It was also decided that when these tests are complete the specification on magnetic rating would be written up to specify the Turner Analyzer as the preferred method, and the Mapes as an alternate. The other remaining method to be revised is the Heat Aging Specification.

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Agenda

BOARD OF GOVERNOR'S MEETING

Asbestos Textile Institute

February 8, 1968, 3:00 pm, Hotel Roosevelt, N.Y.C.

Call to Order - John L. Rainey, Chairman

Introductions

Dr. L.J. Cralley - U.S. P. H. S. Environmental Health Program

Minutes of the last meeting

Financial Report - N.L.A. Martucci, Treasurer

Disposition of A.T.I. Exhibit (now in storage)

A.T.I. Dust Counting Equipment:

(a) Equipment was delivered to Johns-Manville, Manville, N.J. on December 4th, 1967.

(b) Insurance coverage is by Inland Marine Policy No. 18CM 102086, expires 12-1-68, in amount \$4785.00, annual premium \$120.00

(c) Responsibility for repairs, if and when needed, schedule of rotation for use of equipment by members, and method of transportation between members, remain to be decided.

"Asbestos Worker's Health Protection Act" - Bill H.R. 12913, was introduced by Congressman Patten of N.J. on Sept. 14, 1967. It has been referred to the Committee on Interstate and Foreign Commerce.

Government Supply Contracts for Asbestos Textile Products -
(Mr. Flocken may have further comment on this subject).

A.T.I. support for J.A. Bettis project: "History of Asbestos Textiles in U.S.A."

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Typewriter for A.T.I. office

Speaker for the June 1968 meeting

MT-005029

Approval of locations for future meetings:

June 6-7th, 1968, Regency Hyatt House, Atlanta, Ga. (Firm)

October 3-4th, 1968 - Hotel Hershey, Hershey, Pa. (Firm)

February 6-7, 1969 - Grand Hotel, Point Clear, Ala. (near Mobile)
(Firm)

June 5-6, 1969 - Open - suggestions welcomed.

October 9-10, 1969 - Our 25th Anniversary Meeting, and a location suitable for the proper celebration of that event should be chosen. We have been offered these dates by The Carolina, Pinehurst, N.C. and the Secretary has to advise them if we will accept.

Other business

Adjournment

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Minutes

BOARD OF GOVERNOR'S MEETING - February 8, 1968

Hotel Roosevelt, New York, N. Y.

In attendance:

J. L. Rainey - American Asbestos Textile Corporation
 E. A. Schuman - Johns-Manville Corporation
 M. Q. Scowcroft - Raybestos-Manhattan, Inc.
 J. L. Mitchell - Tallman-McCluskey Fabrics Company
 L. E. Moody - H. K. Porter Company, Inc.
 Alex. Kuzmuk - Garlock Inc.
 R. P. Clark - Uniroyal, Inc.
 N. L. A. Martucci - Treasurer A.T.I.
 P. Jay Flocken - Legal Counsel
 H. E. Sunbury - Secretary A.T.I.

MS 005624

Guests: E.M. Nesvig, V.P. & Gen. Mgr., Thermoid Div., H.K. Porter Co., Inc.
 Dr. J. H. Wolfsie, Medical Director, Uniroyal, Inc.
 A. C. Link, Uniroyal, Inc.
 C. L. Sheckler, Johns-Manville Corp.
 M. P. Carson, V.P. - Asbestos Corporation Limited
 R. Dodds-Hebron, V.P. - Bell Asbestos Mines Limited
 E. A. Farrell, Lake Asbestos of Quebec, Ltd.
 Dr. J. L. Goodman, Raybestos-Manhattan, Inc., North Charleston, S.C.
 Dr. J. L. Cralley, U.S.P.H. Service, Cincinnati, Ohio
 H. H. Walter, American Asbestos Textile Corp.
 L. C. Williams, Raybestos-Manhattan, Inc.

***** Minutes *****

1. President Rainey called the meeting to order at 3:00 P.M. Stated that he had received a letter from Mr. G. P. Wiess, Garlock Inc., authorizing Mr. Alex. Kuzmuk to represent that company at this meeting. Also, that he had a letter from Mr. J. A. Brown, Jr., of Raybestos-Manhattan, Inc., authorizing Mr. M. Q. Scowcroft to represent that company at this meeting. Further, that he had been advised by Mr. E. M. Nesvig, V.P. & Gen. Mgr., Thermoid Division, H.K. Porter Co., Inc., that Mr. L. E. Moody would henceforth be that company's representative on the A.T.I. Board of Governors. All of these gentlemen were extended a most cordial welcome.

2. The regular order of business was changed for the convenience of our guests who were invited to hear Dr. L. J. Cralley report on the Environmental Health Study being conducted by the U.S. Public Health Service. Dr. Cralley, Scientist Director, has been a key figure in the Health Study since its inception several years ago.

Dr. Cralley reported on the progress of the Health Study to date, and plans for its continuation. Expects to resume plant studies in June of this year, but no firm schedule has been set up as to order of visiting plants. Mentioned that exposure to trace metals, as well as asbestos, was of interest as they are trying to find out if trace metals such as nickel, cobalt, manganese, etc., are hazardous and to what extent.

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Minutes of the Board of Governor's meeting, continued: Page -2-

In connection with the plant study a "profile" is to be developed on each person, and it is hoped that this can be correlated with the person's health. The past record study of individuals is considered important, even though there is considerable work involved to examine past records. Dr. Cralley suggests they micro-film as a minimum degree of expense to individual companies. Should be ready to start this very soon.

The U.I.C.C. and Asbestosis Research Council will sponsor a Seminar in the summer of 1969, and the tentative location is Cardiff, Wales. The British Occupational Health Association have set up certain standards, by fiber length, for M.P.P.C.F.

Dr. Cralley feels that by good engineering practices the level of dust concentration can be kept at 5 MPPCF as a maximum, and this would mean safety for operators exposed to chrysotile asbestos fibre. For Amosite fibre, however, respirators should be used.

Cliff Sheckler, of Johns-Manville Corporation commented that, while important progress has been made in dust control, it could well be that changes in manufacturing operations will need to be made in future, as removal of dust by air suction may not be sufficient. Johns-Manville is trying to find an answer to the problem of better dust control. He believes also that the asbestos industry must be prepared to answer their customer's questions as to what hazards, if any, exist in handling and using products containing asbestos fibre. Mr. Sheckler said that in his opinion we don't know the dose level as yet, that constitutes a hazard of exposure.

A long discussion period followed the report by Dr. Cralley. President Rainey thanked Dr. Cralley for his attendance at this meeting. Our guests left the meeting at this point, and routine matters on the Agenda were taken up.

3. The minutes of the last meeting were presented for reading. On motion made by E.A.Schuman, seconded by L.E. Moody, it was voted to omit the reading of the minutes.

4. In the absence of Treasurer Martucci (who had to leave early) the Secretary presented the Financial Report for the period of four months ending January 9, 1968. On motion by E. A. Schuman, seconded by J.L. Mitchell, it was voted unanimously to accept the report. It is made a part of these minutes.

5. The Secretary reported that the Bausch & Lomb Dust Counting Equipment, purchase of which was approved by the Board of Governors at their meeting in June, 1967, had been received. Total cost was \$4814.00. The equipment was delivered to Johns-Manville plant at Manville, N.J. on December 4th, 1967, and has been used by that company to a limited extent since that time. The equipment was brought to the Air Hygiene & Mfg. Committee meeting on Dec. 8th, and demonstrated. It was turned over to Raybestos-Manhattan, Inc., at Manheim, Pa., for a tour of use at that location.

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Minutes of the Board of Governor's meeting, continued: Page -3-

The Secretary reported that he had covered the equipment with insurance, in the amount of \$4785.00, by Inland Marine Policy No. 18CM 102086, expiring 12-1-68. Annual premium is \$120.00.

6. President Rainey reported that The A.T.I. Exhibit, now in storage, was to be retired on recommendation of the Sales Promotion Committee. That it had been offered to the Q.A.M. Association, but they were not interested in it. That member companies had been asked to suggest what disposition should be made of the exhibit, and the only suggestion to date was from Raybestos-Manhattan, Inc. A letter from Mr. J.A. Brown, Jr., of that company, offered to store the exhibit without charge, with the intent to use it in the lobby of their new office building in Manheim, Pa., when same was completed. Mr. Brown stated in his letter, that should the A.T.I. want the exhibit back at some future time that it could be returned to the Institute.

Mr. J.L. Mitchell moved that the Raybestos-Manhattan offer be accepted. Mr. R.P. Clark seconded this motion. So voted, unanimously. The Secretary was instructed to arrange for immediate shipment of the exhibit to Raybestos-Manhattan, Inc. at Manheim, Pa.

7. The Secretary reported that the Fiber Testing Committee had recommended that custody of the Standard Magnetite samples, turned over to Mr. P.O. Nicodemus of General Electric Co., Lowell, Mass., by Dr. Shaw, should revert to the Secretary of the A.T.I. as Mr. Nicodemus wished to be relieved of that responsibility. On motion made by Mr. J.L. Mitchell, seconded by Mr. R.P. Clark, it was voted unanimously that the Secretary should be responsible for the Standard Magnetite samples.

8. The Secretary asked the Board to approve purchase of a typewriter, stating that the Institute had never owned a typewriter so far as he could determine, as Dr. Shaw, his predecessor, used his personal typewriter, and the Secretary has been using his own typewriter since taking over from Dr. Shaw in July of 1963.

Mr. J.L. Mitchell moved that the Secretary be authorized to purchase a new typewriter at a cost not to exceed \$300.00. This motion was seconded by Mr. E.A. Schuman. So voted, unanimously.

9. The Secretary informed the Board that Mr. J.A. Bettles, Jr., (retired) a former president of A.T.I., had undertaken to write a "History of Asbestos Textiles in U.S.A.", that it was a very worthwhile project in his opinion, and asked the Board what, if any, support should be given this project of A.T.I.

There was general agreement that it was an admirable project, but inasmuch as Mr. Bettles had not asked for any support from A.T.I., that it would suffice for the Secretary to inform Mr. Bettles that the Board had been informed of his project, thought it an admirable one, and commended him for undertaking it.

10. In regard to a speaker for the June meeting, scheduled to be held June 6-7th, 1968 at the Regency Hyatt House, Atlanta, Ga.

Minutes - Board of Governor's Meeting - continued:

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Mr. M.Q. Scowcroft, of Raybestos-Manhattan, Inc., on learning that it was time, once again, for his company to accept responsibility for providing a speaker, offered to try and get one. Asked whether it was necessary to have a technical paper, and was assured that any appropriate subject would be acceptable.

11. Approval of location for future A.T.I. meetings:

The Secretary reported that he had received confirmed reservations for previously approved locations, namely: June 6-7, 1968 at the Regency Hyatt House in Atlanta, Ga.; and October 3-4, 1968 at the Hotel Hershey, Hershey, Penna.

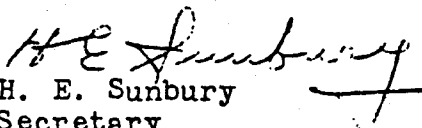
He asked for approval of February 6-7, 1969, at the Grand Hotel in Point Clear, Ala., saying that it had been very highly recommended by Mr. K.W. Nelson (Lake Asbestos of Quebec Ltd) who had attended a meeting there a year or so earlier. A brochure was passed around. Mr. L.E. Moody moved that the Grand Hotel be approved. Mr. Scowcroft seconded the motion. So voted unanimously.

The Secretary then asked for approval of The Carolina, Pinehurst, N.C., as a location for our A.T.I. meeting to be held October 9-10, 1969, stating that this would be the 25th Anniversary meeting of the Institute, and a suitable location should be chosen. There was favorable reaction to the suggestion that we return to the Carolina Hotel at Pinehurst, N.C. (we held our meeting there in Feb. 1965), and Mr. Kuzmuk moved that the Secretary accept The Carolina's offer to host our October 1969 meeting. Mr. R.P. Clark seconded this motion. So voted, unanimously.

Still open for suggestions is a location for our A.T.I. meeting to be held June 5-6, 1969.

12. There being no further business to come before this meeting, on motion duly made and seconded, it was voted to adjourn.

Respectfully submitted,


H. E. Sunbury
Secretary

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MT-005033

MINUTES - BOARD OF GOVERNORS' MEETING - February 8, 1968
Hotel Roosevelt, New York City

ASBESTOS TEXTILE INSTITUTE

In Attendance:

J. L. Rainey, American Asbestos Textile Corporation
E. A. Schumann - Johns-Manville Corporation
M. Q. Scowcroft - Raybestos-Manhattan, Inc.
J. L. Mitchell - Tallman-McCluskey Fabrics Company
L. E. Moody - H. K. Porter Company, Inc.
A. Kuzmuk - Garlock Inc.
R. P. Clark - Uniroyal, Inc.
N. L. A. Martucci - Treasurer ATI
P. J. Flocken - Legal Counsel
H. E. Sunbury - Secretary ATI

Page 1, paragraph 2:

The regular order of business was changed for the convenience of our guests who were invited to hear Dr. L. J. Cralley report on the Environmental Health Study being conducted by the U.S. Public Health Service. Dr. Cralley, Scientist Director, has been a key figure in the Health Study since its inception several years ago.

Dr. Cralley reported on the progress of the Health Study to date, and plans for its continuation. Expects to resume plant studies in June of this year, but no firm schedule has been set up as to order of visiting plants. Mentioned that exposure to trace metals, as well as asbestos, was of interest as they are trying to find out if trace metals such as mickel, cobalt, manganese, etc., are hazardous and to what extent.

In connection with the plant study a "profile" is to be developed on each person, and it is hoped that this can be correlated with the person's health. The past record study of individuals is considered important, even though there is considerable work involved to examine past records. Dr. Cralley suggests they micro-film at a minimum degree of expense to individual companies. Should be ready to start this very soon.

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Dr. Cralley feels that by good engineering practices the level of dust concentration can be kept at 5 MPPCF as a maximum, and would mean safety for operators exposed to chrysotile asbestos fiber. For Amosite fiber, however, respirators should be used.

Cliff Sheckler, of Johns-Manville Corporation, commented that while important progress has been made in dust control, it could well be that changes in manufacturing operations will need to be made in future, as removal of dust by air suction may not be sufficient. Johns-Manville is trying to find an answer to the problem of better dust control. He believes also that the

more.....

MS 005628

MT-005034

Page 2 - Minutes - Board of Governors' Meeting - 2/8/68
Asbestos Textile Institute

asbestos industry must be prepared to answer their customer's questions as to what hazards, if any, exist in handling and using products containing asbestos fiber. Mr. Sheckler said that in his opinion we don't know the dose level as yet, that constitutes a hazard of exposure.

A long discussion period followed the report by Dr. Cralley. President Rainey thanked Dr. Cralley for his attendance at this meeting.

MS 005629

MT-005035

MINUTES - SALES PROMOTION COMMITTEE - February 8, 1968
Hotel Roosevelt, New York City

ASBESTOS TEXTILE INSTITUTE

Page 1, paragraph 5:

A detailed discussion was held concerning the hazards involved in the processing and use of asbestos textiles and the affect of adverse publicity concerning asbestos in the market place. While the subject of Health Hazards is of proper concern to the Sales Promotion Committee it was felt that anything we might do at this time in the form of attempting to set industry standards on what might be called "Dust Free" or "Lint Free" fabrics would introduce far more problems than benefits for the Industry.

MS 005630

MT-005036

R O S T E R

ASBESTOS TEXTILE INSTITUTE
P. O. Box 239, Pompton Lakes, N. J. 07442

* * * * *

AMERICAN ASBESTOS TEXTILE CORP.
Norristown, Pa.

GARLOCK INC.
Palmyra, New York

JOHNS-MANVILLE CORPORATION
New York, N. Y.

H. K. PORTER CO. INC.
Charlotte, N. C.

RAYBESTOS-MANHATTAN, INC.
Manheim, Pa.

TALLMAN-McCLUSKEY FABRICS CO.
St. Louis, Mo.

UNIROYAL, INC.
New York, N. Y.

ASBESTOS CORPORATION, LTD.
Thetford Mines, Quebec, Canada
BELL ASBESTOS MINES, LTD.

Thetford Mines, Quebec, Canada
BRITISH BELTING AND ASBESTOS, LTD.
Cleckheaton, Yorkshire, England
CASSIAR ASBESTOS CORP., LTD.

Toronto, Canada
HILADOS Y TEJIDOS DE ASBESTO, S. A.
Toluca, Mexico

LAKE ASBESTOS OF QUEBEC, LTD.
Black Lake, Quebec, Canada

SOCIETE ANONYME FRANCAISE DU FERODO
Paris, France

TURNER BROTHERS ASBESTOS CO., LTD.
Rochdale, England



ASBESTOS TEXTILE INSTITUTE

—FOUNDED 1944—

GENERAL MEETING

ASBESTOS TEXTILE INSTITUTE

President ----- J.L. Rainey
Vice President ----- E.A. Schuman
Treasurer ----- N.L.A. Martucci
Exec. Sec'y ----- H.E. Sunbury
Legal Counsel ----- P.Jay Flocken

BOARD OF GOVERNORS

J.L. Rainey, Chairman
J.A. Brown, Jr., R.P. Clark, L.E. Moody
J.L. Mitchell, E.A. Schuman, G.P. Wiess

AIR HYGIENE & MFG. COMMITTEE

H.H. Walter, Chairman
A.C. Link, L.E. Moody, K.W. Nelson
C.L. Sheckler, R.B. Smith, L.C. Williams
H.M. Willingham

TECHNICAL COMMITTEE

J.W. Hawkins, Chairman
D.T. Austin, Jr., G.E. Houghton, J.D. McCluer
Wm. Maaskant, E.A. Morris, D.F. Quealy

SALES PROMOTION COMMITTEE

M.Q. Scowcroft, Chairman
J.A. Brown, Jr., J.W. Christenbury, R.P. Clark
N.L.A. Martucci, J.L. Mitchell, J.L. Rainey
E.A. Schuman

FIBER TESTING COMMITTEE

G.F.A. Brink, Chairman
I. Barnett, D.E. Childers, R. Dodds-Hebron
E.A. Farrell, J.W. Hawkins, B. Lincoln
W.C. Streib, T.T. Tigert, J.P. Wronski

FIBRE COMMITTEE

M.P. Carson, J.D. Christian, N.W. Hendry
M.J. Messel, W.W. Oughtred, F.P. Smith
Wm.J.W. Smith

ASBESTOS TEXTILE INSTITUTE

February 1968 Meeting

Place: The Hotel Roosevelt,
Madison Avenue, New York, N.Y.

Wednesday, February 7, 1968

Registration

Technical Committee meeting - 1:00 pm (*)

Social Hour - 6:00 pm (Rooms E & F)

Thursday, February 8, 1968

Committee meetings - 9:00 am to 5:00 pm (*)

Board of Governors meeting - 3:00 pm (*)

Social Hour - 6:00 pm (Madison Room)

Friday, February 9, 1968

GENERAL MEETING - 9:30 am (Madison Room)

Reception & Luncheon - 12:00 noon
(Vanderbilt, Rooms 3-4-5)

Adjournment

(*) Location of meetings to be posted.

Note: Ladies are invited to Social Hours,
also the Reception & Luncheon on Friday.

MS 005632

MT-005038

ATI-131

About the Speaker:- Mr. Paul O. Nicodemus is Senior Insulation Application Chemist, General Electric Co., Wire & Cable Dept., Lowell, Mass. He holds a B.S. degree from Penn. State, and an M.S. degree from the University of Pennsylvania.

After five years as chemist for a consulting laboratory, he joined the General Electric Company as a chemist, and has been with their Wire & Cable Dept. for 26 years.

One of his responsibilities has been applications development of asbestos wire insulation. This includes both the asbestos products involved and the treating compounds for these products. He has two patents in this field; one for a modified silicone used as a saturant and finish for asbestos insulations; the other for an asbestos tape insulated magnet wire and method of preparation of the tape (Saturating and Finishing compounds).

Mr. Nicodemus is G.E.'s representative to ASTM Committee D-13, and Chairman of its Sub-committee A-4, which has responsibility for asbestos textiles. He is also ASTM's Committee D-13's representative to USASI, Committee C-59 on Insulating Materials. He is author of a paper entitled: "Significance of Iron in Asbestos Textile Insulation" that appeared in the ASTM Journal several years ago.

"Nic", as he is known to his many friends in the asbestos textile industry, is married, has two children, and resides at 14 Clear Street, Chelmsford, Mass.

ASBESTOS TEXTILE INSTITUTE

GENERAL MEETING

February 9, 1968

Agenda

Call to Order - 9:30 am - J.L. Rainey, Pres.

Introductions

Minutes of the last meeting

Financial Report - N.L.A. Martucci, Treas.

Legal Counsel Report - P.Jay Flocken

Fibre Producers Report - N.W. Hendry (*)

Talk:- "Asbestos Textile Electrical Insulations - Properties, Present and Future Importance", by Mr. P.O. Nicodemus, General Electric Company.

Committee Reports

Air Hygiene & Mfg.- H.H. Walter, Chairman
Sales Promotion - M.Q. Scowcroft, Chairman
Technical - J.W. Hawkins, Chairman
Fiber Testing - G.F.A. Brink, Chairman

Other business

Reception - 12:00 noon, Luncheon - 12:30 pm
(Vanderbilt, Rooms 3-4-5)

Adjournment

(*) V.P. and General Sales Manager,
Canadian JOHNS-MANVILLE Asbestos, Ltd.
Asbestos, P.Q., Canada

ATI-131

MS 005633

MT-005039

Minutes:- TECHNICAL COMMITTEE Meetings

Asbestos Textile Institute

April 4-5, 1968 at the Sheraton-Park Hotel, Washington, D.C.

In Attendance: William Maaskant - American Asbestos Textile Corp.
 G.E. Houghton - Garlock, Inc.
 J.D. McCluer - H.K. Porter Company, Inc.
 D.T. Austin, Jr. - Uniroyal, Inc.
 E.A. Morris - Uniroyal, Inc.
 P.J. Smith - ASTM
 J.W. Hawkins - Raybestos-Manhattan, Inc. (Chm)

The minutes of the Washington meeting are being combined with the minutes of the June meeting, below.

June 5 and 6, 1968, at the Regency Hyatt House, Atlanta, Ga.

In Attendance: G.E. Houghton - Garlock, Inc.
 J.D. McCluer - H.K. Porter Company, Inc.
 E.A. Morris - Uniroyal, Inc.
 D.F. Quealy - American Asbestos Textile Corp.
 P.J. Smith - ASTM
 J.W. Hawkins - Raybestos-Manhattan, Inc. (Chm)
 H.E. Sunbury - A.T.I.

Minutes:

The Washington meeting was devoted to completing the draft of ASTM Standard D 628 on Braided and Woven Sleeving. This was accomplished and submitted to Dr. Scroggie for editorial comments.

At the Washington meeting Mr. Irving Barnett of J/M was recommended to serve on USASI representing Sc.A-4 of ASTM D-13 and Mr. William Maaskant would be an alternate. The group will work on "Protective Occupation Apparel".

At the Atlanta meeting comments from Dr. Scroggie were reviewed on ASTM D 628 (Braided Sleeving). The 4th draft of this specification is complete and should be ready for a letter ballot before October.

Work has been started on the 1st draft of the Heat Aging Specification D 1573. The round-robin test on asbestos textile products is underway and will be completed prior to the October meeting.

A joint meeting will be held in October between the Fiber Testing Committee and the Technical Committee, also, a joint meeting will be held with Sc.A-4 of ASTM D-13.

Respectfully submitted,

John W. Hawkins
 Chairman

MS 005634

MT-005040

10/3/68



*ASBESTOS
TEXTILE
INSTITUTE*

—FOUNDED 1944—

GENERAL MEETING

MS 005635

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MT-005041

ASBESTOS TEXTILE INSTITUTE

President ----- J.L. Rainey
 Vice President ---- E.A. Schuman
 Treasurer ----- N.L.A. Martucci
 Exec. Sec'y ----- H.E. Sunbury
 Legal Counsel ----- P.Jay Flocken

BOARD OF GOVERNORS

J.L. Rainey, Chairman
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 J.L. Mitchell, E.A. Schuman, G.P. Wiess

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 C.L. Sheckler, R.B. Smith, L.C. Williams
 H.M. Willingham

TECHNICAL COMMITTEE

J.W. Hawkins, Chairman
 D.T. Austin, Jr., G.E. Houghton, J.D. McCluer
 Wm. Maaskant, E.A. Morris, D.F. Quealy

SALES PROMOTION COMMITTEE

M.Q. Scowcroft, Chairman
 J.A. Brown, Jr., J.W. Christenbury, R.P. Clark
 N.L.A. Martucci, J.L. Mitchell, J.L. Rainey
 E.A. Schuman

FIBER TESTING COMMITTEE

G.F.A. BRINK, Chairman
 I. Barnett, D.E. Childers, R. Dodds-Hebron
 E.A. Farrell, J.W. Hawkins, B. Lincoln
 W.C. Streib, T.T. Tigert, J.P. Wronski

FIBRE COMMITTEE

M.P. Carson, J.D. Christian, N.W. Hendry
 M.J. Messel, W.W. Oughtred, F.P. Smith
 Wm. J.W. Smith

MS 005636

PRODUCED
 JM - 83

MT-005042

About the Speaker:- Mr. Paul O. Nicodemus is Senior Insulation Application Chemist, General Electric Co., Wire & Cable Dept., Lowell, Mass. He holds a B.S. degree from Penn. State, and an M.S. degree from the University of Pennsylvania.

After five years as chemist for a consulting laboratory, he joined the General Electric Company as a chemist, and has been with their Wire & Cable Dept. for 26 years.)

One of his responsibilities has been applications development of asbestos wire insulation. This includes both the asbestos products involved and the treating compounds for these products. He has two patents in this field; one for a modified silicone used as a saturant and finish for asbestos insulations; the other for an asbestos tape insulated magnet wire and method of preparation of the tape (Saturating and Finishing compounds).

Mr. Nicodemus is G.E.'s representative to ASTM Committee D-13, and Chairman of its Sub-committee A-4, which has responsibility for asbestos textiles. He is also ASTM's Committee D-13's representative to USASI, Committee C-59 on Insulating Materials. He is author of a paper entitled: "Significance of Iron in Asbestos Textile Insulation" that appeared in the ASTM Journal several years ago.

"Nic", as he is known to his many friends in the asbestos textile industry, is married, has two children, and resides at 14 Clear Street, Chelmsford, Mass.

MS 005637

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MT-005043

ASBESTOS TEXTILE INSTITUTE

GENERAL MEETING

February 9, 1968

Agenda

Call to Order - 9:30 am - J.L. Rainey, Pres.

Introductions

Minutes of the last meeting

Financial Report - N.L.A. Martucci, Treas.

Legal Counsel Report - P.Jay Flocken

Fibre Producers Report - N.W. Hendry (*)

Talk:- "Asbestos Textile Electrical Insulations - Properties, Present and Future Importance", by Mr. P.O. Nicodemus, General Electric Company.

Committee Reports

Air Hygiene & Mfg.- H.H. Walter, Chairman

Sales Promotion - M.Q. Scowcroft, Chairman

Technical - J.W. Hawkins, Chairman

Fiber Testing - G.F.A. Brink, Chairman

Other business

Reception - 12:00 noon, Luncheon - 12:30 pm
(Vanderbilt, Rooms 3-4-5)

Adjournment

(*) V.P. and General Sales Manager,
Canadian JOHNS-MANVILLE Asbestos, Ltd.
Asbestos, P.Q., Canada

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MT-005044

ASBESTOS TEXTILE INSTITUTE

February 1968 Meeting

Place: The Hotel Roosevelt,
Madison Avenue, New York, N.Y.

Wednesday, February 7, 1968

Registration

Technical Committee meeting - 1:00 pm (*)

Social Hour - 6:00 pm (Rooms E & F)

Thursday, February 8, 1968

Committee meetings - 9:00 am to 5:00 pm (*)

Board of Governors meeting - 3:00 pm (*)

Social Hour - 6:00 pm (Madison Room)

Friday, February 9, 1968

GENERAL MEETING - 9:30 am (Madison Room)

Reception & Luncheon - 12:00 noon
(Vanderbilt, Rooms 3-4-5)

Adjournment

(*) Location of meetings to be posted.

Note: Ladies are invited to Social Hours,
also the Reception & Luncheon on Friday.

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MS 005639

MT-005045

R O S T E R

ASBESTOS TEXTILE INSTITUTE
P. O. Box 239, Pompton Lakes, N. J. 07442

* * * *

AMERICAN ASBESTOS TEXTILE CORP.
Norristown, Pa.

GARLOCK INC.

Palmyra, New York

JOHNS-MANVILLE CORPORATION
New York, N. Y.

H. K. PORTER CO. INC.
Charlotte, N. C.

RAYBESTOS-MANHATTAN, INC.
Manheim, Pa.

TALLMAN-McCLUSKEY FABRICS CO.
St. Louis, Mo.

UNIROYAL, INC.
New York, N. Y.

ASBESTOS CORPORATION, LTD.
Thetford Mines, Quebec, Canada

BELL ASBESTOS MINES, LTD.
Thetford Mines, Quebec, Canada

BRITISH BELTING AND ASBESTOS, LTD.
Cleckheaton, Yorkshire, England

CASSIAR ASBESTOS CORP., LTD.
Toronto, Canada

HILADOS Y TEJIDOS DE ASBESTO, S. A.
Toluca, Mexico

LAKE ASBESTOS OF QUEBEC, LTD.
Black Lake, Quebec, Canada

SOCIETE ANONYME FRANCAISE DU FERODO
Paris, France

TURNER BROTHERS ASBESTOS CO., LTD.
Rochdale, England

MS 005640

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MT-005046

Minutes

GENERAL MEETING -- February 9, 1968

Asbestos Textile Institute -- Hotel Roosevelt, New York, N. Y.

In attendance:

AMERICAN ASBESTOS TEXTILE CORP.

J.L. Rainey
J.W. Christenbury
H.H. Walter
D.F. Quealy
Wm. Maaskant

GARLOCK INC.

N.L.A. Martucci
G.E. Houghton
Alex. Kuzmuk

JOHNS-MANVILLE CORP.

E.H. Wells
E.A. Schuman
W.C. Streib
C.L. Sheckler
R. Hindmarch
P.A. Rogers
N.W. Hendry (Can. Johns-Manville)
W.S. Hough (Retired)

H.K. PORTER COMPANY, INC.

E.M. Nesvig
Geo. Bohrer
L.E. Moody
J.D. McCluer
D.E. Childers
J.W. Echerd
G.J. Harris

RAYBESTOS-MANHATTAN, INC.

M.Q. Scowcroft
J.P. Wronski
L.C. Williams
J.W. Hawkins
J.A. Bettes, Jr. (Retired)
Dr. J.L. Goodman

ASBESTOS TEXTILE INSTITUTE

H.E. Sunbury, (Secretary)

A.S.T.M.

P.J. Smith

LUNCHEON GUESTS - Feb. 9th

David A. Caruso, C.P.A.
Mrs. T.T. Tigert
Mrs. N.L.A. Martucci

TALLMAN-McCLUSKEY FABRICS CO.

J.L. Mitchell

UNIROYAL, INC.

R.P. Clark
A.C. Link
D.T. Austin, Jr.
E.A. Morris
W.C. Hitchcock
Dr. J.H. Wolfsie
R. Roderic

ASBESTOS CORPORATION LIMITED

M.P. Carson
G.F.A. Brink
P.E. Leclerc

BELL ASBESTOS MINES LIMITED

Wm. J.W. Smith
R. Dodds-Hebron
C.H. Schoch
W.H. Smith

CASSIAR ASBESTOS CORPORATION, Ltd.

T.T. Tigert

LAKE ASBESTOS of QUEBEC, LTD.

E.A. Farrell

TURNER & NEWALL, Ltd.

B. Lincoln

CADWALADER, WICKERSHAM & TAFT

P. Jay Flocken (Legal Counsel)

GENERAL ELECTRIC COMPANY

P.O. Nicodemus (Guest speaker)

U.S. PUBLIC HEALTH SERVICE

Dr. L.J. Cralley

TURNER BROS. ASBESTOS CO. LTD.

W.M. Deckman
D.F. Roberts

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Minutes of the General Meeting:

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1. President Rainey called the meeting to order at 9:40 A.M. and asked each person to stand and identify himself and his company affiliation. He expressed appreciation that so many company officials were in attendance. Special mention was made of the fact that two former presidents of A.T.I. were present, namely: Messrs. J.A. Bettes, Jr., and W.S. Hough. We were pleased also to have Mr. B. Lincoln, of Turner & Newall, Ltd., Manchester, England; and Dr. L.J. Cralley, of U.S.P.H.S., in attendance.

2. The minutes of the last meeting were presented for reading. It was moved by Mr. J.W. Christenbury that reading be omitted. His motion was seconded by Mr. M.Q.Scowcroft. So voted.

3. The Financial Report was presented by Mr.E.A. Schuman. It was moved by Mr.D.F. Quealy that the report be accepted. Mr. G.E. Houghton seconded the motion, and it was so voted. The report is attached to these minutes.

MS 005642

MT-005048

5. The Fibre Producers Report was given by Mr. N.W. Hendry, V.P. & General Sales Manager, Canadian Johns-Manville Asbestos Limited. A summary of Mr. Hendry's fine report is attached to these minutes.

6. President Rainey introduced Mr. Paul O. Nicodemus, Senior Insulation Application Chemist, General Electric Co., Wire & Cable Dept., Lowell, Mass. Mr. Nicodemus presented an extremely interesting and most comprehensive paper entitled: "Asbestos Textile Electrical Insulations - Properties, Present and Future Importance." At conclusion of his talk Mr. Nicodemus was given a fine round of applause for his very excellent paper. Copies of his paper were distributed to those present. The Secretary has some extra copies and will honor requests for same on a first come first served basis, so long as the supply lasts. President Rainey expressed appreciation, on behalf of the members, to Mr. Nicodemus for his very fine paper.

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Minutes of the General Meeting - continued:

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7. The committee reports were given by the respective committee chairmen as listed below:

Air Hygiene & Mfg. Committee - H.H. Walter, Chm.

Sales Promotion Committee - M.Q. Scowcroft, Chm.

Technical Committee - J.W. Hawkins, Chm.

Fiber Testing Committee - G.F.A. Brink, Chm.

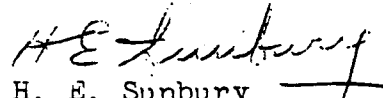
The full text of their reports is attached to these minutes.

8. President Rainey announced that the date of the next General Meeting would be June 6th and 7th, 1968, and it will be held at the REGENCY HYATT HOUSE, Atlanta, Ga. This is a fine new hotel that opened last June. It has received national publicity for its unusual construction and fine accommodations, and we are confident that A.T.I. members, and their wives, will enjoy their stay at the Regency Hyatt House!

He announced also that the fall meeting of A.T.I. would be at the Hotel Hershey, Hershey, Pennsylvania, on October 3-4, 1968.

9. There being no further business to come before the meeting it recessed for luncheon, following which the meeting adjourned.

Respectfully submitted,


H. E. Sunbury
Executive Secretary

MS 005643

PRODUCED
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MT-005049

ASBESTOS TEXTILE INSTITUTE

Report of Funds

January 9, 1968

Balance on Hand at Last Report (September 11, 1967)

General Fund	\$ 832.97	
Savings Fund	24808.34	
Petty Cash Fund	38.77	
		\$ 25680.08

Receipts

To Savings Fund (Interest)	573.32	
To General Fund (Book Sales)	76.70	
		650.02

Total On Hand and Received	\$ 26330.10
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Disbursements

Legal Retainer (3 mos ending 11/30/67)	500.00
Legal Expense (3 " " " " ")	270.98
Secretary's salary (4 mos)	478.00
F.I.C.A. Tax (3rd Qtr 1967)	33.00
Secretary's travel	250.00
Office rent (4 mos)	300.00
Revision of ASTM Specs.(Travel exp.)	69.25
Printing & Office Supplies	34.45
Stenographic (Labor)	22.00
Meeting expense (October 4-6,1967)	793.11
Telephone (4 mos)	135.28
Exhibit expense	129.20
Accountant (Caruso-Year ending 9/67)	300.00
Dues (I.H.F. and ASTM)	135.00
Dust Counting Equipment(Bausch & Lomb)	4814.00
Petty Cash (Vouchers 328-347 incl.)	78.92

MS 005644

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Total Disbursements	\$ 8343.19
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Balance On Hand January 9, 1968	\$ 17986.91
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Funds

General Fund (Bank Statement of 1/9/68)	\$ 498.17
Savings Fund (Interest to 12/31/67)	17467.66 (*)
Petty Cash Fund	21.08

Assets as of Jan.9,1968

Total Funds

\$ 17986.91

General Fund	\$ 498.17
Savings Fund	17467.66
Petty Cash on Hand	21.08
Accts Receivable (Book Sales)	65.09
Accts Receivable (Dues for 1968)	9000.00
Postage on hand	10.33
Furniture & Equipment (Nominal Value)	1.00

PRODUCED
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Liabilities (None)	Total Assets	\$ 27063.33
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Net Worth	\$ 27063.33
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(*) Amounts transferred from Savings to General Fund were -
\$2500.00 on 10/2/67; \$600.00 on 12/14/67; \$4814.00 on 1/8/68.

Respectfully submitted,

H.E. Sunbury
H.E. Sunbury
Asst. Treasurer

FIBRE PRODUCERS REPORT

Mr. N.W. Hendry, Vice President and General Sales Manager, Canadian Johns-Manville Asbestos Limited, Asbestos Fibre Division, Asbestos, Quebec, Canada, reported for the Fibre Producers.

Mr. Hendry commented first on business conditions, and said that 1967 was a pretty good year for fibre producers although a little below the exceptionally good year of 1966. Business was rather slow in England, and Western Europe has levelled off. By contrast Japan is "booming" and Australia is also good. Spain and Italy are doing well, as is South America. The future situation in the U.S.A. is somewhat in doubt as the political situation, credit restrictions and labor problems could affect many major manufacturers adversely.

Speaking of the Textile Fibres, Mr. Hendry pointed out that there has been a marked improvement in quality during the past ten years, the producers now have a great deal more knowledge of what constitutes a good textile fibre, and work to produce even better fibre will continue. He mentioned that demand for textile grades is quite strong.

In comparing total tonnages of asbestos fibre (all grades) produced in Canada vs. Russia, the Canadian mines for year 1967 produced about 1,443,000 tons as against 1,670,000 in Russia. An annual production of 2,200,000 tons by 1970 is forecast for Russia. World production in 1967 was in the neighborhood of 4,300,000 tons.

New mines, namely:- Reeves in Northern Ontario, Clinton Creek in Yukon Territory, Aktrovak and at Kiembi Kazakhstan in Russia, and one in Brazil will add to world production of asbestos fibres. The Brazilian mine is 200 or 300 miles north of Brasilia, and the production there is about 5,000 tons annually.

In commenting on the Health Aspects of asbestos, Mr. Hendry referred to the fact that the Q.A.M.A. had established the Institute of Occupational and Environmental Health to conduct research into all facets of the production, manufacturing and use of asbestos and asbestos products. While the Q.A.M.A. has decided not to publish interim reports on research projects because they are not complete, there is no evidence of any risk to human health in exposure to, or use of manufactured products containing asbestos fibres. A great deal of research on the health aspects of asbestos is being conducted at many centers in the world, to which the Canadian producers are lending their support. Adverse publicity on asbestos has prompted Johns-Manville to get out a "Position Paper" in respect to effect of asbestos on Health, for the benefit of their own organization. While this is not for general publication, members of A.T.I. could probably get a copy by writing direct to President Burnett of Johns-Manville.

In conclusion Mr. Hendry stated that his company, from present indications, would discontinue shipping asbestos fibre grades in loose jute bags due to the dusty condition resulting from this type of operation. Various types of bags can be substituted, such as multi-wall paper or polyethylene, both of which are dust proof.

February 9, 1968

N. W. Hendry **PRODUCED**
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MS 005645

MT-005051

**ASBESTOS TEXTILE
ELECTRICAL INSULATIONS — PROPERTIES
PRESENT AND FUTURE IMPORTANCE**

by Paul O. Nicodemus

ANNUAL MEETING OF ASBESTOS TEXTILE INSTITUTE

**Hotel Roosevelt, New York, N. Y.
February 9, 1968**

MS 005646

MT-005052

ASBESTOS TEXTILE ELECTRICAL INSULATIONS - PROPERTIES

PRESENT AND FUTURE IMPORTANCE

By

P.O. Nicodemus.....General Electric Company
Wire and Cable Department
Lowell, Massachusetts

Presented at
Annual Meeting of Asbestos Textile Institute

Hotel Roosevelt
New York, N.Y.

February 9, 1968

MS 005647

MT-005053

ASBESTOS TEXTILE ELECTRICAL INSULATIONS - PROPERTIESPRESENT AND FUTURE IMPORTANCEIntroduction

There are many asbestiform (fibrous) minerals, but only one, chrysotile, is used for electrical insulation. This is a hydrated magnesium silicate which is most correctly expressed by the formula $Mg_3 [(OH)_4 Si_2 O_5]$. The hydroxyl (OH) ions are loosely bound to the remainder of the molecule and are easily liberated by heat as water, which amounts to approximately 14% of the total weight of the asbestos.

The asbestos fibers, which are actually elongated crystals, when properly opened, range in length from three-quarters of an inch downward. They are soft, silky and very flexible, which allows them to be processed into a variety of textiles and papers.

Impurities in the crystal (fiber) structure and between the fibers are the rule, and not the exception. Of importance as electrical insulation are two types of impurities which occur between the fibers - magnetite and inorganic salts.

Magnetite is a conductive iron oxide which occurs between and at the ends of the fibers in the form of spicules up to one twentieth of an inch in length. Although some of the magnetite is removed from the asbestos during the fiber opening operation, when present in the finished product, it affects the dielectric properties of the fibers. The amount present in the final product is an important basis for classifying asbestos products used for electrical insulations.

MS 005648

MT-005054

Inorganic salts which may be present, are metallic chlorides and carbonates. While not generally present in more than trace amounts, the fiber from certain mines do contain measureable quantities. As these salts are usually hygroscopic in high humidities, they take up enough water to lower the volume resistivity of asbestos products containing them.

Specification for Asbestos Textiles Used for Electrical Insulating Purposes

The basic specification for all asbestos textiles used for electrical insulating purposes is ASTM D 2100. This specification has been accepted as the asbestos textile standard by all electrical industry standardizing agencies such as, U.L., NEMA, IPCEA, AIEE and USASI, as well as all U.S. Government agencies.

This specification classifies asbestos textiles on the basis of the amount of magnetite present (Types) and amount of asbestos fiber (Grades) in the finished product.

Types

The amount of magnetite present is measured by a magnetic analyzer and is expressed empirically as the magnetic rating (MR). The method is based on the principle of comparing the electromagnetic effect of an unknown sample of asbestos with the electromagnetic effect of a standard magnetite sample.

The Types are based on the following magnetic ratings:

<u>Type</u>	<u>Maximum Magnetic Rating (MR)</u>
II	.75
IV	2.00
VI	4.00

MS 005649

The method for determining the magnetic rating (MR) is given in ASTM Method D 1118, Magnetic Rating of Asbestos Used for Electrical Purposes.

Significance of Asbestos Textile Types

The type of asbestos roughly defines the electrical characteristics of the textile. Generally, the higher the magnetic rating, the poorer the electrical properties of the material. The three types have the following intended application:

Type II is intended for thin-wall primary wire insulation, as on magnet wire and pyrometer wire.

Type IV is intended for heavy-wall primary insulation, as on asbestos fixture and appliance wire (UL Types AF and AI) and smokeless lead wire (Type A).

Type VI is intended for use where the electrical properties of the asbestos textile is of minor importance, i.e., overall wire and cable wraps and braids or cable fillers.

Grades

The word "grade" as used in the asbestos textile industry, indicates a system of classification based on the percentage of asbestos by weight, in the finished product. The standard grades with the percentage of asbestos content for each grade are listed in Table I.

<u>Grade</u>	<u>Table I</u>	<u>Percentage of Asbestos by Weight</u>
Underwriters		80 to 85 exclusive
A		85 to 90 "
AA		90 to 95 "
AAA		95 to 99 "
AAAA		99 to 100 inclusive

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Significance of Grades

As the percentage of long fiber asbestos available is relatively low as compared with the short fiber, they are used in the higher grades of asbestos textiles to improve processability and to impart strength for the desired serviceability to the end product.

As the grades decrease in asbestos content, the shorter the average length of asbestos fiber used. In order to process these short asbestos fibers into textiles, and give them strength, long organic fibers, usually cotton or rayon, known as carrier fibers, are blended with the asbestos fibers prior to processing.

The grade of asbestos textile used is largely dependent on the service temperature required of the insulation.

Electrical Properties of Asbestos Insulations

The effect of magnetite and mineral salts on the electrical properties of asbestos has been noted. Independent of these impurities, asbestos insulations have certain characteristics.

The electrical properties of untreated asbestos insulations remain fairly constant regardless of temperature. The electrical properties of treated asbestos insulations are somewhat dependent on the electrical and/or thermal characteristics of the treating compound. Treated or untreated asbestos textile insulations in general, provide no better electrical insulations than an air space of equivalent thickness, and vary with the relative humidity of the air.

MS 005651

The volume resistivity of chrysotile fiber varies from about 500 megohm inches for good chrysotile, under dry conditions, to less than .01 megohm inch for poor chrysotile at 90% relative humidity. *

The dielectric strength of asbestos textile insulations will vary from about 75 volts per mil for Type II asbestos insulations thoroughly impregnated with wax-like materials, at low humidities, to less than 30 volts per mil for untreated and paint- or varnish-impregnated Type IV insulations at 90% relative humidity. This is not true, however, of asbestos papers which, when saturated and surface coated with resins, give dielectric strength in excess of 300 volts per mil.

Asbestos Insulation at Elevated Temperatures

There are three inherent factors which have an important bearing upon the serviceability of asbestos insulations at elevated temperature.

1. The percentage of asbestos in the insulation.
2. The type of compound used to saturate and/or finish the insulation.
3. The design and construction of both the asbestos textile being used and the insulating system.

At temperatures above 250°F, in the presence of air, any organic-carrier fiber or reinforcing strands present, rapidly oxidizes to water and carbon

* Testing of Asbestos Fibers
Dr. J.W. Axelson, Johns-Manville Corp.
Asbestos Textile Institute Meeting
October 8, 1965

MS 005652

dioxide. While this reduces the physical properties of the lower grades of asbestos textile, it does not affect the electrical properties except during the short time the organic fibers are oxidizing or burning off. The higher the temperature, the shorter is the time the electrical properties are affected. This is not true, however, if the asbestos is enclosed in a manner which will prevent the complete oxidation of the organic fibers. In this case, the organic fibers deteriorate to carbonaceous matter which decreases the electrical properties of the insulation proportional to the amount of organic fibers present, lowering both the dielectric strength and volume resistivity.

At temperatures above 400°F, asbestos begins to lose water of hydration. This gradually lowers the physical properties, i.e., tensile strength and/or abrasion resistance, until a temperature of 900°F is reached, then the physical properties decrease rapidly. This loss of water of hydration will vary somewhat with the origin and grade of fiber. The loss of water of hydration at various times and temperature for a Canadian chrysotile fiber, Grade 4M12, is given in Table II, compiled by JM Research, 1941. After one hour at 1800°F, all the water of crystallization is lost (approximately 14%) and although the asbestos retains its fibrous form, the tensile strength and/or abrasion resistance approaches zero.

In general, the higher the asbestos content, the higher the temperature the asbestos will withstand. The effect of long term heat aging on the physical properties at various temperatures is given in Table III.

MS 005653

TABLE II

PERCENTAGE WATER OF CRYSTALLIZATION LOST BY HEATING
CANADIAN CHRYSOTILE ASBESTOS FIBER, GRADE 4M12, AT
VARIOUS TEMPERATURES AND PERIODS

Temperature °F	TIME OF HEATING -HOURS												
	1	2	3	4	5	6	8	16	24	48	72	168	336
400	0.69	0.68	0.70	0.79		0.68					0.94	0.90	0.87
500	0.47	0.63	0.70	0.60	0.55	0.60	0.69	0.62	0.63	0.84	0.85	0.98	0.97
600	0.86	0.89	0.92	0.92	0.98	1.00	1.23	1.29	1.32	1.35	1.55	1.72	1.73
700	1.70	1.87	1.74	1.54	1.61	1.57	1.90	2.00	1.95	1.90	1.93	2.03	2.10
800	1.93	1.91	2.08	2.27	2.26	2.39	2.46	2.42	2.40	2.69	2.80	3.05	3.02
900	2.57	2.65	2.80	2.95	3.11	3.23	3.37	3.55	3.77	4.06	4.27	5.05	6.31
1000	3.67	4.11	4.19	4.49	4.64	4.82	5.09	8.08	6.32	8.28	10.39*	11.79	12.40
1100	10.09	11.79	12.51	12.63	12.69	12.75	12.84	13.00	13.16	13.08	13.31	13.34	13.38
1200	13.12	13.30	13.31	13.45	13.49	13.59	13.62	13.63	13.68	13.74			
1300	13.43	13.52	13.55	13.55		13.57			13.77	13.77			
1400	13.72	13.77	13.82	13.87									
1500	13.80	13.89	13.95										
1600	14.01												
1700	14.03												
1800	14.22												

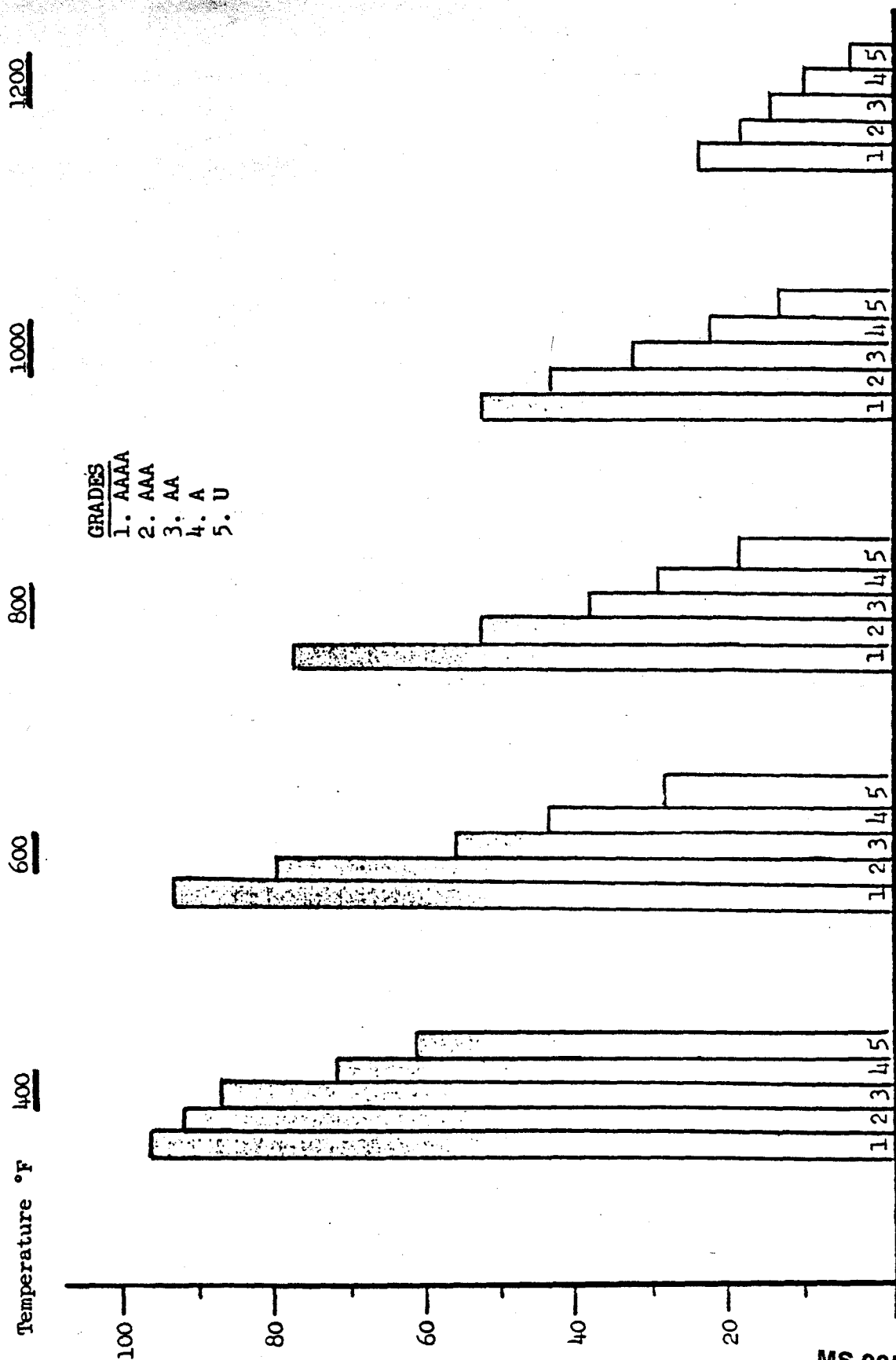
Combined Water, by direct determination = 14.20%

*120 hours

(Reference: Information compiled by JM Research 1941)

MS 005654

TABLE III
EFFECT OF LONG-TIME HEAT AGING ON TENSILE
STRENGTH AND ABRASION RESISTANCE OF ASBESTOS TEXTILES



Per cent Retention of Tensile Strength and/or Abrasion Resistance

MS 005655

While it is impossible to give definite temperatures that the various grades of asbestos textiles will safely stand, Table IV, gives the limiting temperatures at which the various grades are generally used, based on retention of physical properties.

<u>Table IV</u>		
<u>Grade</u>	<u>Temperature</u>	<u>Max. amount of organic reinforcing strand and/or carrier fiber allowed.</u>
Underwriters	450°F	20%
A	550°F	15%
AA	600°F	10%
AAA	750°F	5%
AAAA	900°F	1%

The electrical properties of untreated asbestos insulations at these temperatures remain fairly constant and saturated asbestos insulations are dependent on the electrical and thermal properties of the saturating compound used.

Where physical properties are not important, as in low-voltage pyrometer wires insulated with untreated, felted, Grade AAAA asbestos and quartz fiber braid, or with felted Grade AAAA asbestos saturated with special compounded metallic oxides combined with silicates or phosphates have been used for temperatures in excess of 1500°F. At these temperatures, the electrical properties of the asbestos is roughly equivalent to silicate clays.

Other Properties of Asbestos Textiles

1. Radiation resistance

Asbestos has exceptionally good resistance to nuclear radiation and will withstand an integrated epithermal neutron flux of approximately 10^{20} NVT

before significant structural changes occur.**

2. Saturating Characteristics of Asbestos

a) As the water of crystallization of asbestos exists as negative hydroxyl (OH^-) ions, the fibers are wet most readily by water and polar solvents. Saturating compounds should therefore be dissolved in water or in polar solvents.

b) Paradoxically, the asbestos fibers carry a positive electrical charge, so pigment particles in treating compounds should be negatively charged so they will cling to the asbestos fibers.

c) The refractive index of asbestos fibers is 1.50 to 1.55. This is also the refractive index of the solids of many asbestos saturating varnishes. On thin-walled insulations, as asbestos-insulated magnet wire, this results in transparent spots called "shiners" in the insulation where the conductor can be seen. Although these transparent spots are usually as thick as the remainder of the insulation and as good electrically, visually it appears as though there is no insulation at these spots. For this reason, treating compounds used for thin-walled asbestos wire insulation, usually contain finely ground pigments to minimize the incidence of these "shiners".

3. Fungus Resistance

While asbestos fibers are fungus resistant, cotton or rayon carrier fibers and reinforcing strands, if present, are subject to fungus attack. Such insulations may be made fungus resistant by incorporating a fungicide in treating

** Handbook of Asbestos Textiles
Third Edition, page 33

compounds or by the use of cellulose acetate, nylon or polyester carrier fibers and any of these plus glass as reinforcing strands.

Present Uses of Asbestos Textiles as Electrical Insulation

Wire and Cable Insulation

By far the largest users of asbestos textiles for electrical insulation are the wire and cable manufacturers. This industry uses almost, if not all, of the asbestos lap produced; a large percentage of the roving (either as roving or as fillers) and large quantities of yarn. In addition to these textiles, the industry uses a large portion of the non-woven asbestos tapes.

Lap is the asbestos textile used in the largest poundage. This product, either alone or in combination with other insulating materials, is used as the insulation for a wide variety of wires and cables.

The lap is carded onto wires up to approximately one inch in diameter from sample carding machines in the form of an asbestos felt. After wrapping around the wire, the felt may be treated with a wide variety of compounds, depending on the end use of the wire.

A list of the standard wires, which account for the large majority of lap being used, with the insulating materials and treating compounds used, the maximum temperature and voltage ratings, and principle uses are given in Table V. Two nonstandard wires are also included in this table.

MS 005658

MT-005064

TABLE V

ASBESTOS INSULATED WIRE

Types	Insulating Materials	Maximum Temperature Rating °C	Maximum Voltage Rating	Principle Uses
A	Lap (Type IV Grade A or better) coated with a nonsmoking compound.	200°	300 V	Internal wiring of small electric heating appliances: as heaters, grills where excessive heat exists.
AA	Type A wire and asbestos braid (Type IV Grade A or better) finished with a nonsmoking compound.	200°	300 V	Water heaters, ranges and electric heating appliances where excessive heat and abrasion exist.
AI	Wrapped plastic film and lap (Type IV Grade U) saturated with heat-, flame-, and moisture-resistant compounds (hot melt waxes).	125°	300 V	General appliance wire for internal wiring of ranges, water heaters and other major heating appliances where heat and some moisture exist.
ATA	Type AI wire and asbestos braid (Type VI Grade U) saturated and finished with heat-, flame-, and moisture-resistant compounds (hot melt waxes).	125°	600 V	Same as Type AI, but where abrasion exists.
AP	Same as Type AI except slightly heavier walls of asbestos.	150°	300 V	Internal wiring of lighting fixtures and other specialized uses where heat and moisture exist.
AVI	Lap (Type IV Grade U) Varnished cloth, asbestos lap (same) braid (Type IV Grade U) All asbestos saturated with heat-, flame-, and moisture-resistant compounds (hot melt waxes). Braid finished same.	110°	600 V to 5000 V depending on insulation thickness	High-temperature power cable for boiler rooms etc., in normal dry locations.
AVL	Same as AVA except lead sheath replaces asbestos braid.	110°	600 V to 5000 V depending on insulation thickness	High-temperature power cable where submerged or excessive condensation is present.
AVB	Lap (Type IV Class U) Varnished cloth, asbestos lap (same) cotton braid. Asbestos saturated with heat-, flame-, and moisture-resistant compounds. Braid finished heat-, flame- and moisture-resistant paint.	90°	600 V	Switchboard Wire
TA	Extruded Thermoplastic (PVC) Lap (Type IV Class U) cotton braid. Asbestos saturated with heat-, flame-, and moisture-resistant compounds. Braid finished with heat-, flame and moisture-resistant paint.	90°	600 V	Switchboard Wire
HTD Heater Cord	Uncured rubber - Heavy untreated asbestos - Singles twisted - Cotton or Rayon braid.	90°	300 V	"Heater Cord" for small electrical heating appliances.

NON-STANDARD WIRES

Types	Insulating Materials	Maximum Temperature Rating °C	Maximum Voltage Rating	Principle Uses
Thermocouple Wires	Lap (Type II Class U to Class AAA) high temperature pigmented varnishes.	to above 800°	Very low	Thermocouple and Thermocouple lead wires.
Magnet Wires	Lap (Type II Class U to Class AA) high temperature pigmented varnishes.	to 180°	Very low	Small round and rectangular motor and transformer coil wires.

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The wires produced in the largest amounts are the Type AF and Type AI wires. These account for almost as much lap usage as all of the other types of wire combined.

Two or more conductor cords and cables are made from many of the above wires, often employing asbestos fillers and braids.

A cord which uses a considerable amount of lap is the so called "heater cord" Type HPD.

In this cord, untreated lap or roving is used over either a cured or uncured rubber insulation to physically separate the twisted single conductors and as a thermal insulation where the cord is joined to an electrically heated appliance.

On single wires with diameters in excess of approximately one inch (usually referred to as cables) where lap cannot be used, asbestos roving and asbestos paper tapes are used, either alone or in combination with other insulating materials. The wires produced in the large sizes are usually Type AVA or Type AVL cables.

Notice that for the standard wires, the highest temperature rating is 200°C, although low voltage thermocouple wires are used in excess of 800°C.

Other Insulations Competing With Asbestos

Now let us look at the insulating materials which have or are replacing asbestos wire and cable insulations. Most of these wires have Underwriters' Laboratories, Inc., approval, or are made to military specifications. The most important single wires and cables in this class are listed in Table VI. With the exception of the high-temperature aircraft, wires are arranged roughly in chronological order with respect to the dates when commercially introduced, beginning in the early 1940's.

TABLE VI

WIRE AND CABLE REPLACING ASBESTOS-INSULATED TYPES

Types	Insulating Materials	Maximum Temperature Rating °C	Maximum Voltage Rating	Principle Uses
Magnet Wire	Wrapped fiberglass, varnish impregnated.	200°C	None	High-temperature motor, generator and transformer coils.
UL Type HVM Cord	Extruded neoprene or Hypalon®	90°C	300 V	Small electric heating appliances such as coffee makers, toasters, grills, etc.
Silicone Rubber Appliance and Fixture Wire UL Type SF MIL-W-16375	Silicone rubber, fiberglass braid, lacquer or varnish finish.	200°C	to 1000 V	Clothes dryers, ranges, TV hook-up wire, motor leads.
PTE Teflon® 1. UL Appliance 2. MIL-W-16378 UL Appliance 3. UL Appliance	PTE tapes, fiberglass braid, silicone varnish finish. Extruded PTE Extruded PTE, fiberglass braid, PTE coated.	250°C 200°C 250°C	600 V to 1000 V 600 V	Ovens and other high-temperature equipment. Hook-up, aircraft, appliances, etc. Ovens and other high-temperature appliances.
Standard Wires UL Type TBS UL Type SIS	Extruded PVC, cotton braid. Heat-, flame-, and moisture-resistant finishes. Extruded flame-retardant cross-linked polyethylene.	90°C 90°C	600 V 600 V	Replacement for TA wire. Replacement for TA wire.
Other Approved Appliance Wires 1 2 3 4 5	Extruded cross-linked polyethylene Extruded cross-linked polyethylene Extruded cross-linked polyethylene Heavy-wall extruded high-temperature synthetic rubber such as EPR. Extruded cross-linked polyethylene, asbestos saturated with heat-, and flame-resistant compounds.	90°C 105°C 125°C 130°C 150°C	1000 V 600 V 600 V to 5000 V 300 V	Ballast and motor lead wires, certain appliance applications Ballast motor and transformer leads. Class 125 motor and transformer lead wires, certain other appliances to 125°C Large sizes (similar to AVA uses). Class 130 motor and transformer leads, cable and power supply. Ranges, ovens, certain other appliances. (Similar to type AI wire.)
Aircraft Wires 1. MIL-W-1777 2. MIL-W-7139 3. MIL-W-25033 4. MIL-W-3331 5. Airframe Manufacturers	Silicone rubber, glass or dacron braid, varnish finished. PTE, PTE glass tapes, PTE coated fiberglass braid. Asbestos, glass braids or tapes, PTE tapes, fiberglass braid PTE coated. FEP coated polyimide tapes, colored PEP finish. PTE tapes and FEP coated polyimide tapes.	200°C 260°C 400°C 200°C 200°C	600 V 600 V 600 V 600 V 600 V	High-temperature aircraft wire. High-temperature aircraft wire. High-temperature aircraft wire. Aircraft wire, Space vehicles. Aircraft wire.

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The first material to challenge asbestos as a high-temperature insulating material was fiberglass. By the early 1940's, continuous filament fiberglass yarns were used for the manufacture of thin cloth and tapes which could be used in place of asbestos cloth and tapes. It was next used as exterior braids over high-temperature wire and cable insulations as asbestos or silicone rubber. In some cases, varnished glass braids replaced asbestos braids formerly used. Next came fiberglass-insulated magnet wire. This double wrapped fiberglass insulation has almost completely replaced asbestos-insulated magnet wire.

Although untreated fiberglass has almost no abrasion resistance, this deficiency has been overcome to a considerable extent by treating the fiberglass insulating materials with tough high-temperature varnishes.

While not normally considered a high-temperature insulation, the next material to make an inroad on asbestos wire insulation was neoprene. This material was approved by Underwriters' Laboratories, Inc., as the insulation for a new type of "heater cord" designated as Type HPN. This is a parallel cord, insulated with neoprene or Hypalon, which has and will continue to be used in place of the HPD cord containing asbestos. It has the same ratings as HPD cord, 90°C and 300 volts. It is now being used on most small electrically heated appliances where there is no excessive heat at the appliance terminals, such as: toasters, warming trays, coffee makers, etc. HPN cord has the added advantage of being less expensive than the HPD cord.

Two other high-temperature insulating materials introduced in the late 1940's were polytetrafluoroethylene (PTFE), also known by the trade name of Teflon, and silicone rubber.

PTFE, introduced in the early 1940's, as a skived tape, has good electrical properties, excellent moisture resistance and is good for continuous use up to 250°C. It was first used in combination with both asbestos and fiberglass. Later a method of extruding it directly on conductors was developed. Extruded, unfused tapes, which could be wrapped on wire, and then fused, were also made available.

Wires insulated with PTFE found immediate use as special high-temperature hook-up, aircraft, thermocouple wires, coaxial cables, and control cables. Its inherent high cost has limited its use for wires and cables. It is, however, still being used in combination with asbestos and fiberglass for high-temperature aircraft, thermocouple and appliance lead wires.

Introduced at about the same time as PTFE was another high-temperature wire and cable insulation - silicone rubber. Its growth in this field has also been slow because of its high cost. During the 1950's, Underwriters Laboratories, Inc., listed several types of silicone rubber fixture and appliance wires, i.e., Type SF fixture wire. As the price of silicone rubber decreases, its use will increase. It is now being used in many places where asbestos insulated wires were formerly used, because of its superior electrical properties, especially at high humidities.

The approval by Underwriters Laboratories, Inc., of Type TBS Switchboard wire in 1956 was the next important inroad on asbestos wire insulations. As can be seen from Table VI, the insulation of this wire is quite similar to Type TA Switchboard wire, with one important difference, there is no asbestos between the primary

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extruded insulation and the cotton braid. It has the same ratings as Type TA wire, 90°C and 600 volts. As would be expected, customers started using this wire at the expense of Type TA wire.

In 1958, the General Electric Co., introduced a new wire and cable insulation - Vulkene[®] - a chemically cross-linked polyethylene. The cross-linking changes the polyethylene from a thermoplastic material which becomes soft and finally melts with increasing temperatures, to a thermosetting material which does not melt at elevated temperatures. This material has the excellent insulating qualities of polyethylene combined with higher temperature serviceability. Its excellent insulating properties are maintained under conditions of high relative humidities at elevated temperatures.

Since its introduction, many types of Vulkene insulated wires have been approved by the Underwriters' Laboratories, Inc. Several of these wires will further curtail the use of asbestos insulations. They are:

1. Type SIS Switchboard. This wire consists of a flame resistant extruded cross-linked polyethylene insulation which requires no braid. This wire has the same ratings as Types TA and TBS Switchboard wires and is replacing both of these products.
2. A cross-linked polyethylene insulated motor lead wire having ratings of 125°C and 600 volts. This wire is replacing asbestos- and fiberglass-insulated wires.

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3. The wire that will probably cause the greatest replacement of asbestos as an insulating material is the recently Underwriters' Laboratories, Inc., approved 150°C - 300 volt appliance wire. This wire consists of a primary insulation of cross-linked polyethylene over which is applied a thin wall of felted asbestos saturated with a heat-, and flame resistant compound. Note that this wire is similar to asbestos-insulated Type AI wire but has a temperature rating 25°C higher.

While this wire has limited approval for specific applications, it will probably replace a considerable amount of the present Type AI wire.

In addition to these Vulkene insulated wires and cables, GE recently introduced new Vulkaflex apparatus and motor lead cable. This cable has a rating of 130°C at voltages up to 5000 volts. This cable is insulated with EPR., one of the new heat resistant synthetic rubbers. It will probably replace some of the Type AVA wires.

Other wire and cable manufacturers are now producing or will produce these types of wires within the next few years.

Another class of recently introduced wire insulations are the new aromatic polyamides and polyimides. They are being used as wire enamels and for making yarns, cloth, woven-tape, and film-tapes.

In several respects the "hottest" high-temperature wire insulations at the present time are the polyimide-film tapes coated with the copolymer of "fluorinated ethylene and propylene" (FEP). These tapes can be wrapped on a conductor and fused. The wire may then be finished with a color coating of FEP, applied from a suspension.

This insulation is used for the newest type aircraft wire covered by MIL-W-81381. The wire is rated at 200°C and 600 volts. The insulation thickness is either 7 or 12 mils, depending on the type. Wire made with these tapes has excellent electrical properties.

While the above developments made serious dents in the asbestos used for wire and cable insulations, the use of these new wires tended to stabilize and the increased production of Type AF, AI and several other types of wire during the early 1960's, led to complacency on the part of the asbestos processors. Statements to the effect that asbestos would always maintain or expand its position in the wire and cable insulating field, were common.

This complacency was partially justified, for each year, the sale of asbestos lams, rovings, yarns and paper tapes to the wire and cable industry increased.

However, if the relative rate of production of the HPN, SF and TBS Types of wire to the increase in production of the asbestos insulated wires were examined, it would have been noted that the production of the former types were increasing at a much faster rate than were the old stand-bys as Types AF, AI, TA, and HPD, and this trend is continuing.

In 1961, asbestos insulated wires accounted for 2.6% of the total wire and cable sales dollar. In 1967, it accounted for only 1.9% of the total sales dollar. Between 1961 and 1967, the total wire and cable sales dollar

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volume increased 90%, while the sale of asbestos-insulated wires increased only 45%, only half as much growth as the wire and cable industry as a whole.

Now lets look at asbestos textiles used for electrical insulating purposes other than wire and cable. These are the tapes, cloth, and sleeving. The products used in the greatest quantities are the woven tapes, known in the asbestos industry as "decimal" tapes, as their thickness is measured in decimal portions of an inch as opposed to commercial tapes where thickness is measured in fractional portions of an inch. In the electrical industry they are known as listing.

These tapes have a wide variety of uses. Type II tapes are used as the primary insulation for certain types of magnet wire and bus bar insulation. Type IV tapes have the highest and most diversified usage. Their principle uses are for secondary insulation, for end turns of large size magnet wire, and for coil wrapping.

Asbestos cloths, Types II and IV, are usually impregnated with varnishes, phenolic, eopxy, and silicone, and are used as high-temperature slot insulations for motors and generators. They are also used as high-temperature, abrasion-resistant panel insulations for various uses.

Although not an asbestos textile, the importance of asbestos paper as electrical insulation should be mentioned. In tape form, impregnated with resinous materials, they are used as insulations for large-size cables and some magnet wire insulation for transformers.

Its greatest use, however, is for laminated composite molded insulations, high-temperature (200°C) panel and molded insulations for various uses.

What materials have or are replacing these asbestos products? Woven fiberglass tapes and cloth have been used to some extent, but due to the superior abrasion resistance of the asbestos materials, this has been limited. In fact, in some instances where glass textiles were used, asbestos is again being specified.

Tapes and cloth, made with a combination of fiberglass and asbestos yarns, are finding increased usage. The advantage of this combination is the high strength of the glass and the abrasion resistance of the asbestos.

Teflon in tape or sheet form may not be considered a competitive material for asbestos papers, but is a high temperature plastic which is widely used as electrical insulation.

As with wire insulations, the new polyamide and polyimide tapes, cloth, and particularly paper, are beginning to be used for specialized applications.

While this paper is at present much more expensive than asbestos paper, it is finding specialized uses as turn, layer, and barrier insulation on dry-type transformers. It can be bonded in place by pretreatment with a partially cured ("B" stage) polyimide coating. A similar paper is used for wrapping coils, thus eliminating a varnish treatment. These materials are rated up to 220°C.

Dollar values are not available for asbestos textiles used for electrical insulations other than wire and cable. It is believed that there has not been the sharp downward trend which has occurred in that industry.

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Now we have seen the insulating materials which are gradually but surely replacing asbestos insulation. What is being done about it?

To survive, an industry must keep up with new developments. Table VI lists eighteen basic single-conductor wires and cables, developed roughly within the past 25 years. About half of these have been developed in the past ten years.

Now look at Table V. How many new asbestos-insulated wires have been developed within the last 25 years? The answer is none, as all of these wire designs are over 30 years old.

How many new products have been developed by the asbestos textile industry as new or improved electrical insulating materials during this time? How many products employing asbestos electrical insulation in place of other materials have been introduced during this period? The answer is very few.

During the 1940's, thin asbestos papers and tapes were introduced, which have found considerable use as electrical insulations, but this is not a textile.

The only really new development in this field is the very recently developed fine cut asbestos yarns. These will find many uses in the electrical insulating field. Can it replace fiberglass braids, cloth, and tape? Only if it is pursued in an aggressive manner. Not just by showing the yarns, tapes, and cloth, but by making, or having made end-use products. Show where and how it is better. Compare technical data. Show the end product to the processors, and also to the end-product users. Make him want it. Until you can sell the end-use product, you will not sell the yarn.

MS 005669

After examining the many materials which are making inroads on asbestos insulations, can the statement still be made that asbestos will at least maintain its present position as an electrical insulation?

It is entirely up to the asbestos processors. It will be true only if they do "as best as" they know how in two areas; development and marketing.

MS 005670

Minutes

ASBESTOS TEXTILE INSTITUTE Air Hygiene and Manufacturing Committee February 8, 1968 Roosevelt Hotel New York, N.Y.

Attended:

Members:	H.H. Walter, Chairman	- American Asbestos Textile Corp.
	C.L. Sheckler	- Johns-Manville Products, Corp.
	L.E. Moody	- H.K.Porter, Inc.
	A.C. Link	- Uni-Royal, Inc.
	Dr. J.H. Wolfsie	- Uni-Royal, Inc.
	L.C. Williams	- Raybestos-Manhattan, Inc.

Absent:	R.B. Smith	- Raybestos-Manhattan, Inc.
	H.M. Willingham	- Uni-Royal, Inc.
	K.W. Nelson	- American Smelting & Refining

Visitors:	Dr. L.J. Cralley	- U.S. Dept. of Health, Education & Welfare
	R. Hindmarch	- Johns-Manville Products, Corp.
	R. Slocomb	- Bausch & Lomb
	J.W. Brown	- Bausch & Lomb

Bausch & Lomb Automatic Dust Counter

The Bausch & Lomb Dust Counter - Model 40-2 was demonstrated to the committee by Robert Slocomb, Product Engineer of Bausch & Lomb. R. Hindmarch reported that some tests had been conducted with the instrument at the J.M. plant in Manville, New Jersey and comparisons had been made with test results obtained with the Midget Impinger. Comparative studies have shown that the results are on the same level; but that a conclusive correlation between the two methods has not yet been established. The instrument was turned over to L.C. Williams, Raybestos-Manhattan, with the understanding that it will be passed on to another member company at the next meeting. The companies using the instrument will attempt to establish a correlation with the Midget Impinger and submit their findings to Dr. L.J. Cralley. Bausch & Lomb will also participate in this program.

Environmental Health Survey

Dr. L.J. Cralley reported on a meeting with the American Conference of Governmental Industrial Hygienists.

Dust Control

The committee suggests that the Board of Governors consider the advisability of wet weaving to eliminate excess dust during the operation as well as in the use of the end product.

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Various other methods to reduce dust during the manufacturing process were discussed.

The committee adjourned to attend a special meeting held by the Board of Governors to hear Dr. Cralley's report on the continuation and the progress of his environmental health study.

H.H. Walter
Chairman

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Minutes

ASBESTOS TEXTILE INSTITUTE
Sales Promotion Committee
February 8, 1968
Hotel Roosevelt - New York City

Attending this meeting were Messrs. J.L. Rainey and J.W. Christenbury of American Asbestos Textile Corporation, N.L.A. Martucci and Alexander Kuzmuk of Garlock, Inc., E.A. Schuman of Johns-Manville Corp., J.L. Mitchell of Tallman-McCluskey Fabrics Company, R.P. Clark of Uniroyal, Inc., P. Jay Flocken, (Legal counsel), H.E. Sunbury, (Secretary), and M.Q. Scowcroft of Raybestos-Manhattan, Inc.

Efforts to place the display cabinet owned by the Institute have now been exhausted. Raybestos-Manhattan offered to store the cabinets pending completion of their new office building in Manheim, Pennsylvania where it will eventually be placed in their lobby. The committee voted to accept the offer and the matter was turned over to the Board of Governors for further action.

At the meeting held in Hilton Head, S.C. last October the committee discussed a proposal presented to it by the Edward W. Robotham Company for an advertising program aimed at promoting the use of asbestos textiles in a general rather than a specific end product usage as an effort to combat the intrusion of alternate materials in many of our traditional fields. Between that meeting and the meeting held February 8th, generally discouraging reports came back from most member companies. Because of the lukewarm reception at top management level it was voted to shelve the program temporarily. However, it was recorded that most of the members of the committee felt that there was genuine merit in the program and that it should not be permanently set aside.

The purchasing policies of the Government procurement program was discussed in detail. Rather than have legal counsel pursue the matter in an attempt to influence them to adjust this policy, it was agreed that the committee assign two members to visit the D.S.A. in Columbus, Ohio in an attempt to educate ourselves as to the reasons for these purchasing policies and to attempt to obtain relief from them. R.P. Clark of Uniroyal, Inc. and M.Q. Scowcroft of Raybestos-Manhattan, Inc. were assigned this task. A full report will be submitted to the committee following the call at Columbus and prior to the next meeting.

A detailed discussion was held concerning the hazards involved in the processing and use of asbestos textiles and the affect of adverse publicity concerning asbestos in the market place. While the subject of Health Hazards is of proper concern to the Sales Promotion Committee it was felt that anything we might do at this time in the form of attempting to set industry standards on what might be called "Dust Free" or "Lint Free" fabrics would introduce far more problems than benefits for the Industry.

Information had reached members of the Institute that the U.S. Navy had eliminated the use of asbestos cloth as insulation aboard Naval

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ships. This was thoroughly investigated and found to be entirely false. But it has been learned that one private shipyard has eliminated asbestos and replaced it with glass cloth in at least one popular style of cloth. Members agreed that a stepped up and continuing program of contacting the Navy Department in Washington is worth our efforts.

Competition from Japanese cloth in the United States was also discussed in detail. It was suggested that Japanese cloth does not approach the quality of fabrics manufactured by member companies particularly in relation to their flame resistant characteristics and we are working up data to use as ammunition in this area.

A specific application of rubber coated asbestos sleeving accused of being the culprit in a corrosion problem with air-frame manufacturers was discussed. No specific action was taken since it was understood that a member company was fighting this substitution with its own active task force.

Respectfully submitted,

M. Q. Scowcroft,
Chairman

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Asbestos Textile Institute
Technical Committee Meeting
February 7, 1968

The meeting was held at the Roosevelt Hotel in New York City.

<u>IN ATTENDANCE:</u> Phil Rogers	- Johns-Manville
G.E. Houghton	- Garlock, Inc.
D.T. Austin	- Uniroyal, Inc.
Wm. Maaskant	- American Asbestos Textile Corp.
D.F. Quealy	- American Asbestos Textile Corp.
Ed Morris	- U.S. Rubber Co.
J.D. McCluer	- H.K. Porter Co.
P.O. Nicodemus	- General Electric Co.
George Harris	- H.K. Porter Co., Inc.
Paul Smith	- ASTM
John Hawkins	- Raybestos-Manhattan, Inc.

SUBJECTS DISCUSSED:

ASTM D 1061: The asbestos lap specification was completed at this meeting. The Editorial Committee of ASTM suggested several changes in format which were not acceptable to the Technical Committee. Other minor changes were incorporated into D 1061 and this specification will be published in October without further changes.

ASTM D 628: This tubular sleeving method as presently published covers Test Methods only. The sections pertaining to test methods have been completely rewritten. It was decided that in addition to test methods that this method would also include specifications and tolerances. These additional sections will be incorporated into the method after consideration by the committee.

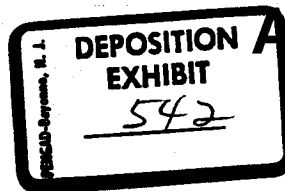
The Technical Committee met briefly with the Fiber Testing Committee to hear their report on the Round Robin test series on magnetic rating recently completed by that committee. These tests considered asbestos fibers only.

A joint session was held between ASTM Committee A-4 and the Technical Committee on February 8. Mr. Nicodemus acted as chairman and matters of mutual interest were discussed. A Round Robin test will be conducted on the magnetic rating of asbestos products - lap, roving, yarn, tape, and cloth. It was also decided that when these tests are complete the specification on magnetic rating would be written up to specify the Turner Analyzer as the preferred method, and the Mapes as an alternate. The other remaining method to be revised is the Heat Aging Specification.

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Asbestos Textile Institute
Technical Committee Meeting
December 14th, 15th, 1967

The meeting was held at the Sheraton Park Hotel in Washington, D.C.

IN ATTENDANCE: Irving Barnett - Johns-Manville
J. D. McCluer - H. K. Porter Co.
Tex Austin - Uniroyal, Inc.
Wm. Maaskant - American Asbestos Textile Corp.
H. E. Sunbury - Asbestos Textile Institute
Paul Smith - ASTM
John Hawkins - Raybestos-Manhattan, Inc.

SUBJECTS DISCUSSED:

ASTM D 1061: The 1st Draft of the Asbestos Lap Specification was reviewed. Suggestions by Mr. Nicodemus of General Electric were considered. 2nd Draft was completed and submitted to the Editorial Committee of ASTM.

ASTM D 628: The 1st Draft of the Test Methods for Tubular Sleeving (woven and braided) was started. This was not completed and was to be considered during the February meeting.

MIL-I-15349C: This specification on Thermal Insulation Tape was reviewed and weight changes acceptable for the amosite and chrysotile types were submitted to the Government.

Proposed Aluminized Herringbone Cloth: The proposed specification was reviewed and it is essentially the same as MIL-C-82249A except for the Neoprene backing. Suggestions were submitted to Natick for review.

John W. Hawkins
Chairman of the Technical Committee

JWH:ch

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MINUTES OF THE ASBESTOS TEXTILE INSTITUTE
FIBRE TESTING COMMITTEE MEETING - 8TH FEBRUARY, 1968

LOCATION: Room E, Mezzanine Floor
The Roosevelt Hotel, New York, N.Y.

PRESENT:

<u>Members:</u>	G.F.A. Brink, Chairman	- Asbestos Corporation Limited
	D.E. Childers	- H.K. Porter Company, Inc.
	R.J. Dodds-Hebron	- Bell Asbestos Mines Limited
	B. Lincoln	- Turner & Newall Limited
	W.C. Streib	- Johns-Manville Corporation
	T.T. Tigert	- Cassiar Asbestos Corporation Limited
	J.P. Wronski	- Raybestos-Manhattan, Inc.

<u>Visitors:</u>	C.H. Schoch	- Bell Asbestos Mines Limited
	W.H. Smith	- " " " "

BUSINESS:

1. The outcome of the Magnetic Rating Round Robin on three asbestos fiber samples at different laboratory locations and the conclusions based on the statistical analyses of the results were reviewed with members of the Technical Committee (6), Mr. Paul O. Nicodemus, Chairman of Subcommittee A-4, ASTM Committee D-13, and other affiliated ASTM members (3) present, as follows:

1.1 Metallic influence can have a drastic result on the Mapes test, however, if the test is run correctly and the equipment zeroed properly, the influence of metallics can be overcome.

Note 1 - During the course of discussion, it was pointed out that, due to differences in construction, it was not always possible to zero all models of the Mapes apparatus in the presence of metallic influence.

1.2 The continuing F x C interaction leads to the conclusion that fiber sampling and/or fiber conditioning is an important procedural technique to be improved in all magnetic rating tests.

1.3 From the Round Robin, there is no major evidence of superiority of T. & N. over the Mapes Test from a reproducibility standpoint between companies. The advantages of the T. & N., however, are ease of operation, less susceptibility to magnetic influence, and its initial cost.

2. The recommendations of the joint session were as follows:

2.1 That the ASTM Magnetic Rating Test Method be rewritten indicating a preference for the T. & N. apparatus and retaining Procedure "A" of the present ASTM D-1118 procedure as an alternative.

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- 2.2 That the custody of the remaining standard magnetite Sample No. 29(a), or equivalent reference standards, now in the possession of Mr. Paul Nicodemus be transferred to ATI for safe keeping; and that the Fibre Testing Committee take action to acquire a supply of suitable iron oxide for the preparation of calibration standards and arrange for its dispensation through the ATI Executive Secretary in the future (This recommendation was subsequently approved by the ATI Board of Governors).
- 2.3 That the Technical Committee, in conjunction with Subcommittee A-4, ASTM Committee D-13 members interested, organize a Round Robin to investigate the performance and reproducibility of the T. & N. apparatus for the testing of textile products before the new Magnetic Rating Test Method is finalized (Round Robin to include the laboratories involved in the recent Fibre Testing Committee's Round Robin plus other ATI member companies interested).
- 2.4 That the Fibre Testing Committee carry out some exploratory testing with a natural crudy fiber to investigate the effect of the sampling procedure on the reproducibility of the Magnetic Rating Test (Three member companies indicated their desire to participate in this study).
3. Interest was rejuvenated in a test method for determining the undesirable rock and spicular content of spinning fibres (Two laboratories indicated that they were currently considering suitable approaches to this particular problem).
4. Recent activities of the QAMA Technical and ASTM D-30 Committees (Subcommittee III) of interest to ATI were briefly reviewed.
5. New Business. - The chairman indicated that an agenda would be mailed out one month in advance of the next meeting to stimulate interest in the Fibre Testing Committee's activities; and to assist in guiding its future program to best meet the requirements of ATI.

G.F.A. Brink, Chairman
ATI Fibre Testing Committee

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INTER-ORGANIZATION COMMUNICATION

RAYBESTOS-MANHATTAN, Inc.

No. 68-66

ASBESTOS TEXTILE DIVISION

TO Mr. S. R. Zimmerman, Jr.

Date 2 February 1968

ATTENTION

SUBJECT United States Naval Department

Washington, D. C.

Dear Mr. Zimmerman:

Reference our conversation regarding the fact that Turner Brothers had heard the rumor that glass cloth was going to be specified by United States Navy to the exclusion of asbestos cloth, I went to Washington on this matter January 30th and 31st.

A few days before I left I called Mr. William Winblad, the Vice President of Johns-Manville who has been covering Washington for Johns-Manville for the last thirty years. I mentioned the problem to him and he had one of his specialists, a Mr. H. Vincent Reynolds, also go over his Washington contacts to determine if there was any merit in this rumor. Before I left for Washington, Mr. Reynolds told me that he could find no evidence of glass cloth being specified rather than asbestos cloth.

On Tuesday we had lunch with Mr. Carl Gnam of the Miscellaneous Metals & Minerals Division of the Department of Commerce. Mr. Gnam is responsible for the stockpiling of asbestos fiber for the Government and is familiar with everyone in the Navy Department who has anything to do with asbestos insulation. Mr. Gnam assured me that, as far as he was concerned, this rumor was not valid as glass cloth could always be used for pipe lagging if it contained less than 2% treatment and he had not heard of any change of attitude of the Navy.

Mr. Shirey and I then contacted the following personnel in the Navy Department and, for a matter of record, I am going to list their room numbers and telephone numbers:

Mr. William Shetterly, Code 634C4, Room 3214
 Mr. H. P. Walker, Room 4714, Phone 64919
 Mr. Al Munkreis, Room 3730, Phone 61010

Mr. Munkreis is in the insulation section and is very familiar with our specifications. He told me that he knew of no switch in specifications from asbestos to glass cloth and he would be in a position to know if this had taken place. He indicated that asbestos cloth per se as pipe lagging was going to be handled by Mr. J. Puglisi in the office of Mr. Leon Birnbaum, but that Mr. Puglisi was presently in a meeting which would tie him up for the afternoon and he was also leaving the next day on an assignment. Mr. Munkreis said that possibly it would not do any good to contact Mr. Puglisi as he had only been on the job three days and knew nothing about asbestos cloth. This

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seems to have been standard operating procedure for the Navy for the last thirty years that I have contacted them as it seems to be "taboo" to have anybody handle a product which he knows anything at all about.

I also tried to contact the head of the cable section of the Navy Department and found that the two gentlemen responsible for this section were on a trip. For the matter of record though, Mr. T. Acosta is the head of the cable section and his assistant is Mr. D. Weiner. They are located in Room 4716, telephone number 61787.

I do believe that I got the real answer to our problem when I called on Mr. F. D. Rupprecht of Armstrong Contracting & Supply in Baltimore. This company does a tremendous amount of shipyard work and Navy work in insulating vessels at Bethlehem Steel, Sparrows Point, Maryland. I asked Mr. Rupprecht about glass versus asbestos and he said that the contractor at all times has been able to use glass cloth as lagging, but that his company would never use anything but asbestos. The reason for this is that the people who are doing the insulation work are at an extremely high hourly rate and they can tear asbestos cloth by hand very readily before they wrap it around the steam line. Glass cloth will not tear properly at all and would have to be cut and, with the high wage rates, Mr. Rupprecht said this would not be economically feasible.

I would assume that with the information we got at the Navy Department, and also from Mr. Rupprecht, that possibly this rumor is not correct.

JOHN A. BROWN, JR.
sub

cc: M. G. Scowcroft
D. E. Shirey

MS 005680

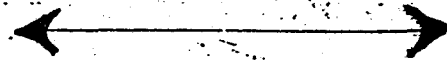
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MT-005086

*Mr. Patten is from the District
covering Merrill, W. V.*

90TH CONGRESS
1ST SESSION

H. R. 12913



IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 14, 1967

Mr. PATTEN introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To promote the safety of workers engaged in making asbestos products for shipment in commerce, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Asbestos
5 Workers' Health Protection Act".

6 DEFINITIONS

7 SEC. 2. As used in this Act—

8 (1) The term "Secretary" means the Secretary of
9 Health, Education, and Welfare.

10 (2) The term "commerce" means commerce (A) be-
11 tween any State and any point outside thereof or (B) be-

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1 tween points in the same State, but through any point outside
2 thereof.

3 (3) The term "State" includes the District of Columbia
4 and the Commonwealth of Puerto Rico.

5 (4) The term "asbestos product" means asbestos or any
6 article made in whole or in part of asbestos.

7 (5) The term "person" means an individual, partner-
8 ship, corporation, association, or other form of business
9 enterprise.

10 RULES AND REGULATIONS

11 SEC. 3. (a) Not later than one year after the date of
12 enactment of this Act, the Secretary shall prescribe and pub-
13 lish in the Federal Register rules and regulations for the
14 protection of the health of persons handling asbestos or
15 asbestos products or engaged in the manufacturing of such
16 products, including (1) rules and regulations for the labeling
17 of asbestos products so as to fully inform handlers and ulti-
18 mate users of such products of the health hazards of such
19 products and any measures which should be taken with
20 respect thereto and (2) standards establishing limits on the
21 number of particles of asbestos which may be in suspension in
22 the air breathed by humans.

23 (b) In addition to the rules and regulations prescribed
24 pursuant to subsection (a) of this section, the Secretary is
25 authorized to prescribe such rules and regulations, including

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1 rules and regulations for the making and maintenance of
2 records, as may be necessary for the administration and
3 enforcement of this Act.

4 INSPECTION

5 SEC. 4. (a) For purposes of enforcing this Act, officers
6 and employees of the Department of Health, Education, and
7 Welfare designated by the Secretary, upon presenting appro-
8 priate credentials and a written notice to the person owning,
9 operating, or in charge of any place where any asbestos or
10 asbestos product is held for introduction into commerce or
11 after such introduction are authorized (1) to enter such
12 place at reasonable times, and to inspect such place and
13 carry out such tests as may be necessary to determine con-
14 formity with standards prescribed pursuant to section 3 of
15 this Act. Such inspection and testing shall in all cases be
16 carried out at reasonable times, within reasonable limits,
17 and in a reasonable manner.

18 (b) Upon completion of any inspection carried out pur-
19 suant to subsection (a), the officer or employee making it,
20 before leaving the premises shall give to the person to whom
21 notice was presented pursuant to such subsection a report in
22 writing setting forth any conditions or practices which are in
23 violation of standards, rules, or regulations prescribed pur-
24 suant to this Act. A copy of such report shall be sent
25 promptly to the Secretary.

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PROHIBITED ACTS

SEC. 5. No person engaged in the business of refining or selling asbestos, or of manufacturing or selling asbestos products, for introduction into commerce shall violate any rule or regulation prescribed by the Secretary pursuant to section 3 of this Act.

ENFORCEMENT

SEC. 6. (a) If the Secretary, after reasonable notice and opportunity for a hearing, determines that any person is violating section 5 of this Act, he shall issue an order requiring such person to cease and desist from continuing such violation within such time as may be specified in such order, but in no event less than thirty days from receipt of notice of such order by such person.

(b) Any person required by an order of the Secretary to cease and desist from violation of any such standards, rules, or regulations may obtain judicial review of such order by filing a petition for review, within sixty days after service of such order, in the United States court of appeals either for the circuit in which such person resides or has his principal place of business or for any circuit in which the violation is found to have occurred, or in the United States Court of Appeals for the District of Columbia Circuit. A copy of the petition shall forthwith be transmitted by the clerk of the court to the Secretary or to any officer designated by him

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1 for that purpose and to the Attorney General, and thereupon
2 the Secretary shall certify and file in the court through the
3 Attorney General the record of the proceedings upon which
4 the order is based, as provided in section 2112 of title 28,
5 United States Code.

6 (c) Upon the filing of such petition, such court shall
7 have jurisdiction of the proceeding (which jurisdiction shall
8 upon the filing of the record be exclusive) and shall have
9 power to affirm the order of the Secretary, or to set it aside
10 in whole or in part, temporarily or permanently, and to
11 enforce such order to the extent that it is affirmed, and to
12 issue such orders pendente lite as in its judgment are neces-
13 sary to prevent injury to the public. The commencement of
14 proceedings under this paragraph shall not, unless specifi-
15 cally ordered by the court, operate as a stay of the Secre-
16 tary's order.

17 (d) No objection to the order of the Secretary shall be
18 considered by the court unless such objection was urged
19 before the Secretary or unless there were reasonable grounds
20 for failure so to do. The findings of the Secretary as to the
21 facts, if supported by substantial evidence on the record con-
22 sidered as a whole, shall be conclusive, but the court, for
23 good cause shown, may remand the case to the Secretary
24 for the taking of additional evidence in such manner and
25 upon such terms and conditions as the court may deem proper.

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1 in which event the Secretary may make new or modified
2 findings and shall file such findings (which, if supported by
3 substantial evidence on the record considered as a whole,
4 shall be conclusive) and his recommendation, if any, for the
5 modification of setting aside of his original order, with the
6 return of such additional evidence.

7 (c) The judgment of the court affirming or setting aside,
8 in whole or in part, any order under this subsection shall be
9 final, subject to review by the Supreme Court of the United
10 States upon certiorari or certification as provided in section
11 1254 of title 28, United States Code.

12 (f) (1) Any person who violates a cease and desist
13 order of the Secretary after it has become final and while
14 such order is in effect, shall forfeit and pay to the United
15 States a civil penalty of \$5,000 for each violation, which
16 shall accrue to the United States and may be recovered
17 in a civil suit in the name of the United States brought in
18 the district where such person has his principal office or in
19 any district in which he does business. Each separate viola-
20 tion of such an order or failure to file such a report shall
21 be a separate offense, except that in the case of a violation
22 through continuing failure to obey a final order of the
23 Secretary each day of continuance of such failure shall be
24 deemed a separate offense. The Secretary may, upon appli-
25 cation therefor, remit or mitigate any forfeiture provided

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1 for in this paragraph, and he shall have authority to de-
2 termine the facts upon all such applications.

3 (2) It shall be the duty of the various United States
4 attorneys, under the direction of the Attorney General of
5 the United States, to prosecute for the recovery of such
6 forfeitures.

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Minutes
BOARD OF GOVERNOR'S MEETING
Asbestos Textile Institute
June 6, 1968 - 3:00 P.M.
The Regency Hyatt House, Atlanta, Ga.

In attendance:

J.L. Rainey - American Asbestos Textile Corp.
E.A. Schuman - Johns-Manville Corp.
J.A. Brown, Jr. - Raybestos-Manhattan, Inc.
J.L. Mitchell - Tallman-McCluskey Fabrics Company
L.E. Moody - H.K. Porter Company, Inc.
P. Jay Flocken, Legal Counsel - Cadwalader, Wickersham & Taft
H.E. Sunbury - Secretary, A.T.I.

Absent: R.P. Clark - Uniroyal, Inc. (Due to illness)
G.P. Wiess - Garlock Inc. (Due to company business)

Guests: Dr. L.J. Cralley - U.S. Public Health Service

***** Minutes *****

1. President Rainey called the meeting to order at 3:00 P.M., and stated that R.P. Clark of Uniroyal, Inc., was unable to attend due to being in the hospital suffering from what appeared to be a sudden attack of kidney stone. Also, that Garlock Inc., did not have either Mr. G.P. Wiess or Mr. Alex Kuzmuk present as both were tied up with a company wide meeting during the current week.

2. The regular order of business was changed for the convenience of Dr. Cralley, U.S.P.H. Service, who had been specially invited to attend this meeting by President Rainey., for the purpose of reporting on the present status of the Environmental Health Study and associated matters of great importance to our industry.

Dr. Cralley exhibited a copy of a paper entitled "Characterization and Solubility of Metals Associated with Asbestos Fibers". This paper was presented May 13-18, 1968 at the American Industrial Hygiene Conference. Discussed procedures followed in obtaining data for the above paper. Found that solubility of various metals varied greatly, and oxides were not soluble in serum.

Stated that talcum powders contain "fibrous" materials and metals, and it is believed that these can cause formation of ferruginous bodies in the lungs.

Discussed tests to determine asbestos particles in air due to disintegration of brake linings (in England) and said that little evidence was found to support some statements that had been made to the effect that abraded particles from brakelinings were a considerable source of such "asbestos particles".

Said advance orders for the new publication "Industrial Hygiene Highlights" Volume I, are excellent. Five thousand copies will be printed, but only two or three thousand will be bound to begin with, balance being held unbound. Availability - late July.

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Minutes, Board of Governor's meeting - continued: Page -2-

Environmental Study: Work is proceeding with the collecting of background data on individuals employed in the industry. This will be broken down into years of service, where they worked (plant area) health record, etc. They micro-film the employee records. Now working in the Beryllium industry, and will go thru the asbestos textile industry soon, then other asbestos industries. In a year he expects that they will have more to talk about from data that has been accumulated by that time. Amount of money available is somewhat uncertain at the present time. The introduction of the Federal Health & Safety Bill, H.R. 14816, should have a favorable effect, if it becomes law, on the operations of the Health, Education and Welfare Dept.

In response to a question concerning the establishment of standards, Dr. Cralley said that his group would furnish data on which safety standards would be based as set up by a special board under the Occupational Safety and Health Act of 1968.

Mr. Rainey asked if any conclusions as to "safe limits" of dust counts had been reached as yet. Dr. Cralley said "No", not enough data was yet available, but said they did hope that in time they would have enough. Said that if, for example, the standard was set as low as 2.5 MPPCF, a lot of "outside air" would have to be cleaned up, as frequently outside air is 3.0 MPPCF or greater in dust content. Also, he pointed out that in the area of even 5.0 MPPCF it is difficult to measure accurately and say definitely that data is correct.

Dr. Cralley said that the Bausch & Lomb Dust Counting Equipment purchased recently by the Institute for use of it's members will prove to be very valuable to our industry.

President Rainey thanked Dr. Cralley for attending this meeting, expressing appreciation on behalf of the Institute and Board.

3. The minutes of the last meeting were presented for reading. On motion made by Mr. Brown, seconded by Mr. Schuman, it was voted to omit the reading.

4. The Financial Report was presented by the Secretary. On motion made by Mr. Brown, seconded by Mr. Moody, it was voted unanimously to accept the report, and same is made a part of these minutes.

5. President Rainey advised the Board that Mr. N.L.A. Martucci, Treasurer of A.T.I., had written the Secretary under date of May 15, 1968 requesting that his resignation be presented to the Board of Governors at this meeting, stating that his new duties with Garlock Inc. made his presence at future meetings unpredictable. **PRODUCED JM - 83**

Mr. Schuman moved that the resignation be accepted with sincere regret. This motion was seconded by Mr. Mitchell, and so voted. The Secretary is to advise Mr. Martucci of this action. After some discussion it was decided not to elect a new Treasurer until the annual meeting next October. Meanwhile the Vice President is authorized to sign checks, where two signatures are required, should any emergency develop.

Minutes of the Board of Governor's Meeting - continued: Page -3-

6. President Rainey appointed Mr. J.A. Brown, Jr., as Chairman of the Nominating Committee, to present a slate of officers at the next meeting of the Board of Governors to be held October 3, 1968. The normal two-year terms for all officers expire at that time.

7. Mr. Rainey reported that the subject of imports of Japanese asbestos textiles into the U.S.A. had been discussed extensively at the Sales Committee meeting earlier that day, and any further discussion at this meeting would be omitted. (*)

8. Mr. Brown stated that Raybestos-Manhattan, Inc., would attempt to supply a speaker for our October 4th, 1968 General Meeting (on Friday morning) at Hotel Hershey, Hershey, Pa.

9. The Secretary exhibited copy of two different pamphlets sent him from the "Asbestos Information Committee", 10 Wardour St., London, England. These are entitled: "Asbestos - Safety and Control" and the other: "Problems Arising From the Use of Asbestos". It was suggested that the Secretary start these two pamphlets on a round of Board members.

10. Suggestions were asked as to location for the A.T.I. meeting in June 1969. Mr. Schuman suggested Seaview Country Club in Absecon, N.J. Mr. Moody suggested Bretton Woods, N.H.

11. The Secretary stated that he had received a letter, dated May 28, 1968, from Mr. J.A. Bettles, Jr., a former president of the Institute, suggesting that the Institute pay honor to Miss Edith M. Cox, who retired on March 31, 1968 as Editor of Asbestos Magazine, after completing more than 50 years of service in the asbestos industry. Mr. Bettles suggested that an excellent idea would be to invite Miss Cox to the A.T.I. meeting at Hotel Hershey next October, and present her with a plaque or watch, and pay her expenses. After considerable discussion Mr. Mitchell moved that Miss Cox be invited to attend the General Meeting to be held on Friday morning, October 4th, at Hotel Hershey, that we pay her expenses in connection with her attendance, and that we give her a "verbal tribute" at that time. This motion was seconded by Mr. J.A. Brown, and so voted. An invitation is to be sent Miss Cox.

12. There being no further business to come before this meeting it was duly adjourned.

Respectfully submitted, **PRODUCED**

H.E. Sunbury
H.E. Sunbury
Secretary JM - 83

(*) Following the meeting Mr. Rainey instructed the Secretary to ask the Technical Committee to arrange for "Round Robin" tests on Japanese Cloth to compare its quality with that made in USA, Our Sales Promotion Committee had made the request this be done, in the hope that it could be proven that the imported cloth was of inferior quality. The Chairman of the Technical Committee has agreed to proceed with the round robin tests.

H.E.S.

ASBESTOS TEXTILE INSTITUTE

Board of Governors Meeting

June 6, 1968 - 3:00 PM - Regency Hyatt House, Atlanta, Ga.

Agenda:

Call to Order - John L. Rainey, President

Introductions

Dr. L.J. Cralley, U.S.P.H.S., Environmental Health Program

Minutes of the last meeting

Financial Report

Resignation of ATI Treasurer, W.L.A. Martucci

Appointment of Chairman of Nominating Committee

- (a) Canvasses member companies to determine who will represent each member on the Board of Governors for the coming year.
- (b) Presents slate of officers for election at the October meeting.
- (c) Suggests appointments for Chairmen of four working committees.

Note: All officers - President, Vice President, and Treasurer, end their usual two-year term in October 1968. All four of the committee chairmen have served only one year, and it is hoped that they will agree to continue.

U.S.A. imports of Japanese-made asbestos textiles.

Literature received from the "Asbestos Information Committee"
(10 Wardour St., London, England)

- (1) Pamphlet entitled "Asbestos - Safety and Control"
- (2) Pamphlet entitled "Problems Arising from the Use of Asbestos"

Speaker for the October, 1968 meeting.

As authorized at the last meeting, a new typewriter was purchased for the ATI office. This is a "Royal", Model 440-11, Manual, Serial No. 8838568. Cost \$260.00 plus \$7.80 tax, total \$267.80.

Location for future meetings:

October 3-4, 1968 - Hotel Hershey, Hershey, Pa. (Firm)
February 6-7, 1969 - Grand Hotel, Point Clear, Ala. (near Mobile) (Firm)
June 5-6, 1969 - Open - Suggestions welcomed
October 9-10, 1969 - The Carolina, Pinehurst, N.C. (Firm) This will be our 25th Anniversary.

Other business

Adjournment

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JM - 83

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MT-005097

MINUTES - BOARD OF GOVERNORS' MEETING - June 6, 1968
The Regency Hyatt House, Atlanta, Georgia

ASBESTOS TEXTILE INSTITUTE

In Attendance:

J. L. Rainey, American Asbestos Textile Corporation
E. A. Schuman - Johns-Manville Corporation
J. A. Brown, Jr. - Raybestos-Manhattan, Inc.
J. L. Mitchell - Tallman-McCluskey Fabrics Company
L. E. Moody - H. K. Porter Company, Inc.
P. J. Flocken, Legal Counsel - Cadwalader, Wickersham & Taft
H. E. Sunbury - Secretary, ATI

Page 1, paragraph 2:

72-058-P, 96
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Page 3, paragraph 9:

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MS 005693

MT-005099



*ASBESTOS
TEXTILE
INSTITUTE*

—FOUNDED 1944—

GENERAL MEETING

MS 005694

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ASBESTOS TEXTILE INSTITUTE

President ----- J.L. Rainey
 Vice President ---- E.A. Schuman
 Treasurer ----- N.L.A. Martucci
 Exec. Sec'y ----- H.E. Sunbury
 Legal Counsel ----- P.Jay Flocken

BOARD OF GOVERNORS

J.L. Rainey, Chairman
 J.A. Brown, Jr., R.P. Clark, L.E. Moody
 J.L. Mitchell, E.A. Schuman, G.P. Wiess

AIR HYGIENE & MFG. COMMITTEE

H.H. Walter, Chairman
 A.C. Link, L.E. Moody, K.W. Nelson
 W.C. Seeds, C.L. Sheckler, R.B. Smith
 L.C. Williams, H.M. Willingham

TECHNICAL COMMITTEE

J.W. Hawkins, Chairman
 D.T. Austin, Jr., G.E. Houghton, J.D. McCluer
 Wm. Maaskant, E.A. Morris, D.F. Quealy

SALES PROMOTION COMMITTEE

M.Q. Scowcroft, Chairman
 J.A. Brown, Jr., J.W. Christenbury, R.P. Clark
 A. Kuzmuk, J.L. Mitchell, J.L. Rainey
 E.A. Schuman

FIBER TESTING COMMITTEE

G.F.A. Brink, Chairman
 I. Barnett, D.E. Childers, R. Dodds-Hebron
 E.A. Farrell, J.W. Hawkins, B. Lincoln
 W.C. Streib, T.T. Tigert, J.P. Wronski

FIBRE COMMITTEE

M.P. Carson, J.D. Christian, N.W. Hendry
 M.J. Messel, W.W. Oughtred, F.P. Smith
 Wm. J.W. Smith

MS 005695

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ASBESTOS TEXTILE INSTITUTE

GENERAL MEETING

June 7, 1968

Agenda

Call to Order - 9:30 AM - J.L. Rainey, Pres.

Introductions

Minutes of the last meeting

Financial Report

Legal Counsel Report - P.Jay Flocken

Fibre Producers Report - Wm.J.W. Smith (*)

Talk: - THE ACCELERATION OF TEXTILE
TECHNOLOGY or How to take a Giant
Step Without Saying "May I?", by
Dr. G.R. Cuthbertson, UNIROYAL, Inc.

Committee Reports

Air Hygiene & Mfg. - H.H. Walter, Chairman

Sales Promotion - M.Q. Scowcroft, Chairman

Technical - J.W. Hawkins, Chairman

Fiber Testing - G.F.A. Brink, Chairman

Other business

Reception - 12:00 Noon, Luncheon - 12:30 PM
(Spanish Suite)

Adjournment

(*) Director, Vice Pres. & Gen. Sales Mgr.
BELL ASBESTOS MINES LIMITED
Thetford Mines, P.Q., Canada

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MT-005102

ASBESTOS TEXTILE INSTITUTE

JUNE - 1968 Meeting

Place: The REGENCY HYATT HOUSE,
265 Peachtree St., ATLANTA, GA.

Wednesday, June 5, 1968

Registration

Technical Comm. Meeting - 1:00 pm (*)

Social Hour - 6:00 pm (Spanish Suite)

Thursday, June 6, 1968

Committee meetings - 9:00 am to 5:00 pm (*)

Board of Governors meeting - 3:00 pm (*)

Social Hour - 6:00 pm (Spanish Suite)

Friday, June 7, 1968

GENERAL MEETING - 9:30 AM -(Grecian Suite)

Reception - 12 Noon, Luncheon - 12:30 pm
(Spanish Suite)

Adjournment

Note: Ladies are invited to Social Hours,
also the Reception & Luncheon on Friday.

(*) Location of Committee Meetings will be
posted. Spanish and Grecian Suites are
located on the Terrace Level.

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MT-005103

About the Speaker:

Dr. G.R. Cuthbertson is Technical Director of the Fiber and Textile Division, UNIROYAL, Inc. He received his A.B. in Chemistry from the William Jewell College in Liberty, Mo., and his A.M. and Ph.D. degrees from Harvard University.

Dr. Cuthbertson began his career with Uniroyal 32 years ago. Starting as a Research Chemist he served in its Tire Division in various capacities including Factory Manager, Production Manager, Director of Research and Development, and Vice President & General Manager.

About five years ago Uniroyal decided to transfer full responsibility for research and development on tire cord from Tire Division to the Textile Division - also to embark on a multi-million dollar program for the production of synthetic fiber. Dr. Cuthbertson was entrusted with the responsibility for directing this program, as well as the continuing research and development work on tire cord, Lastex yarns, asbestos, and other textile products.

Dr. Cuthbertson is listed in "Who's Who in America" and in "American Men of Science". He has been a member of the American Chemical Society for the past 25 years. In 1965 the William Jewell College honored him with a Doctor of Laws Degree.

Dr. and Mrs Cuthbertson live in Columbia, S.C. They have three children and five grandchildren. His office is at the Uniroyal Textile Research Center, Winnsboro, S.C.

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R O S T E R

ASBESTOS TEXTILE INSTITUTE
P. O. Box 239, Pompton Lakes, N. J. 07442

* * * *

AMERICAN ASBESTOS TEXTILE CORP.
Norristown, Pa.

GARLOCK INC.

Palmyra, New York

JOHNS-MANVILLE CORPORATION

New York, N. Y.

H. K. PORTER CO. INC.

Charlotte, N. C.

RAYBESTOS-MANHATTAN, INC.

Manheim, Pa.

TALLMAN-McCLUSKEY FABRICS CO.

St. Louis, Mo.

UNIROYAL, INC.

New York, N. Y.

ASBESTOS CORPORATION, LTD.

Thetford Mines, Quebec, Canada

BELL ASBESTOS MINES, LTD.

Thetford Mines, Quebec, Canada

BRITISH BELTING AND ASBESTOS, LTD.

Cleckheaton, Yorkshire, England

CASSIAR ASBESTOS CORP., LTD.

Toronto, Canada

HILADOS Y TEJIDOS DE ASBESTO, S. A.

Toluca, Mexico

LAKE ASBESTOS OF QUEBEC, LTD.

Black Lake, Quebec, Canada

SOCIETE ANONYME FRANCAISE DU FERODO

Paris, France

TURNER BROTHERS ASBESTOS CO., LTD.

Rochdale, England

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ASBESTOS TEXTILE INSTITUTE

Minutes - GENERAL MEETING - June 7, 1968

The Regency Hyatt House, Atlanta, Ga.

In Attendance:

AMERICAN ASBESTOS TEXTILE CORP.

J.L. Rainey
J.W. Christenbury
D.F. Quealy
H.H. Walter

GARLOCK Inc.

G.E. Houghton

JOHNS-MANVILLE CORP.

E.A. Schuman

H.K. PORTER COMPANY, Inc.

L.E. Moody
J.D. McCluer

RAYBESTOS-MANHATTAN, Inc.

J.A. Brown, Jr
M.Q. Scowcroft
J.W. Hawkins
L.C. Williams
Dr. E.P. Stefl

TALLMAN-McCLUSKEY FABRICS CO.

J.L. Mitchell

UNIROYAL, Inc.

Dr. G.R. Cuthbertson
A.C. Link
E.A. Morris
H.M. Willingham

ASBESTOS CORPORATION LIMITED

G.F.A. Brink
P.E. Leclerc

BELL ASBESTOS MINES LIMITED

Wm. J.W. Smith
W.H. Smith

CASSIAR ASBESTOS CORP. LTD.

J.G. Berry
T.T. Tigert

LAKE ASBESTOS OF QUEBEC LTD.

C.E. Stiefken

TURNER BROS. ASBESTOS CO. LTD.

W.M. Deckman

CADWALADER, WICKERSHAM & TAFT

P.JAY Flocken (Legal Counsel)

A.S.T.M.

P.J. Smith

U.S. Public Health Service

Dr. L.J. Cralley

ASBESTOS TEXTILE INSTITUTE

H.E. Sunbury (Secretary)

GUESTS

Dr. G.C. Holroyd - Uniroyal, Inc.
Marion Smith ---- Uniroyal, Inc.
Earl Wells ----- Uniroyal, Inc.
P.A. Meyer ----- Nicolet Industries, Inc.
J.K. Whittaker --- Nicolet Industries, Inc.

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In addition, approximately thirteen wives of members were present at Social Hours and at the luncheon on Friday noon, June 7th.

***** Minutes *****

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1. President Rainey called the meeting to order at 9:30 A.M. and asked each person to stand and identify himself and his company. He expressed particular appreciation that Dr. E.P. Stefl, Vice President of Raybestos-Manhattan, Inc., was in attendance. Also welcomed to the meeting were: Dr. G.R. Cuthbertson, Dr. G.C. Holroyd, Earl Wells and Marion Smith, all from Uniroyal, Inc.; and Messers P.A. Meyer and J.K. Whittaker of Nicolet Industries, Inc.

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Minutes of the General Meeting - continued:

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2. The minutes of the last meeting were presented for reading. It was moved by Mr. J.W. Christenbury that the reading be omitted. This motion was seconded by Mr. E.A. Schuman. So voted.

3. The Financial Report was presented by the Secretary. Mr. J.A. Brown, Jr. moved that it be accepted, and Mr. G.E. Houghton seconded the motion. It was so voted. The report is attached .

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5. The Fibre Producer's Report was given by Mr. Wm.J.W. Smith, Director, Vice President & General Sales Manager of Bell Asbestos Mines Limited.

Mr. Smith said, commenting on the overall sales picture for asbestos fibres (all grades), that 1966 was a "good year", 1967 was slightly less, and that 1968 is moving toward the 1966 level based on year-to-date figures. Further, that the sales of spinning fibre grades are in step with the overall picture.

In Europe, events of the past few weeks in France and other countries, may have an adverse effect on progress, although there is still considerable optimism there. In England, a more hesitant view is taken. In Japan, which he visited a few weeks earlier, Mr. Smith found that a good start has been made, and they should have a good year even if money gets "tight" as some fear may occur later this year.

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6. President Rainey introduced Dr. G.R. Cuthbertson, Technical Director of the Fiber and Textile Division, UNIROYAL, Inc., and expressed our pleasure at his willingness to be our main speaker at this meeting. Dr. Cuthbertson's talk, entitled - "The ACCELERATION OF TEXTILE TECHNOLOGY" or How to take a Giant Step Without Saying "May I?", was most constructive and of great interest to a most appreciative audience. We are indebted to Dr. Cuthbertson for supplying copies of his talk for inclusion with these minutes.

President Rainey thanked Dr. Cuthbertson on behalf of the Institute and it's mangers.

7. The committee reports were given by the respective committee chairmen as listed below:

Air Hygiene & Mfg. Committee - H.H. Walter, Chairman
Sales Promotion Committee - M.Q. Scowcroft, Chairman
Technical Committee - J.W. Hawkins, Chairman
Fiber Testing Committee - G.F.A. Brink, Chairman

The full text of their reports is attached to these minutes. President Rainey expressed his appreciation, and that of the Institute, for the fine work of our several committees, and mentioned also the valuable assistance given the Technical Committee by Mr. Paul J. Smith of A.S.T.M. in regard to the revision of ASTM Specifications for Asbestos Textiles.

8. President Rainey announced that the date of the next General Meeting would be October 3-4, 1968, at Hotel Hershey, Hershey, Pa. This is a fine hotel, located in the interesting Pennsylvania Dutch country, with much to see and do. As is customary at our annual meeting each October, members are urged to make a special effort to bring their wives to this meeting!

Mr. Rainey announced also, that the winter meeting of A.T.I. would be at the GRAND HOTEL, Point Clear, Ala. (near Mobile) and the dates are February 6-7, 1969. This is a very famous hostelry and those who have attended meetings of other associations there are sure that A.T.I. members and their wives will greatly enjoy their visit to the GRAND HOTEL!

9. There being no further business to come before the meeting it recessed for luncheon, following which the meeting adjourned.

Respectfully submitted,

H. E. Sunbury
H.E. Sunbury
Secretary

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ASBESTOS TEXTILE INSTITUTE

Report of Funds

May 8, 1968

Balance on Hand at Last Report (Jan. 9, 1968)

General Fund	\$ 498.17	
Savings Fund	17467.66	
Petty Cash Fund	21.08	
		\$ 17986.91

Receipts

To Savings Fund (Interest, 4 mos.)	225.00 (Est.)	
To Savings Fund (1968 Dues)	3000.00	
To General Fund (1968 Dues)	6000.00	
To General Fund (Book Sales)	82.74	
To General Fund (Ins. Refund)	29.16	
		9336.90
Total On Hand and Received		\$ 27323.81

Disbursements

Legal Retainer (3 mos. ending 2/29/68)	500.00	
Legal Expense (" " " ")	----	
Secretary's Salary (4 mos.)	478.00	
F.I.C.A. Tax (4th Qtr '67, 1st Qtr '68)	66.00	
Secretary's Travel	69.00	
Office Rent (4 mos.)	300.00	
Printing & Office Supplies	127.83	
Stenographic (Labor)	90.00	
Meeting Expense (Feb. 7-9, 1968)	861.99	
Telephone (4 mos.)	77.09	
Exhibit Expense	116.60	
Insurance (Dust Counting Equipment, 1 yr.)	120.00	
New Typewriter (for ATI office)	267.80	
Petty Cash (Vouchers 348-359 incl.)	64.77	
Total Disbursements		3139.08

Balance On Hand May 8, 1968	\$	<u>24184.73</u>
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Funds

General Fund (Bank Statement 5/8/68)	\$ 3456.84	
Savings Fund	20692.66 (*)	
Petty Cash Fund	35.23	
Total Funds		\$ <u>24184.73</u>

Assets as of May 8, 1968

General Fund	\$ 3456.84	
Savings Fund	20692.66	
Petty Cash Fund	35.23	
Accts Receivable (Book Sales)	24.65	
Postage on hand	11.42	
Furniture & Equipment (Nominal Value)	1.00	
Total Assets		\$ <u>24221.80</u>

Liabilities (None)

Net Worth		\$ <u>24221.80</u>
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(*) Includes \$225.00 interest estimated for period 1/1/68-4/30/68

Respectfully submitted, *H.E. Sunbury* Asst. Treasurer

THE ACCELERATION OF TEXTILE TECHNOLOGY

Or, How to Take A Giant Step

Without Saying "May I?"

Guest Speaker: Dr. G. R. Cuthbertson
Technical Director
Fiber & Textile Division
UNIROYAL, Inc.

Asbestos Textile Institute Meeting
Atlanta, Georgia
June 7, 1968

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Gentlemen . . .

As every schoolboy knows, Spencer Tracy invented the electric light . . . Don Ameche invented the telephone . . . Paul Muni became one of humanity's great benefactors with his development of pasteurization . . . and it is entirely possible that Elvis Presley will some day remove his agile fingers from a guitar long enough to accomplish the world's first successful transplant of the human heart.

Now I'm sure you all recognize these very familiar names as those of actors who have portrayed . . . or may some day portray . . . the lives of such men of genius as Thomas Edison, Alexander Graham Bell, Louis Pasteur and Dr. Christian Barnard.

In a sense, the highly colored motion picture biographies have succeeded in corrupting our appreciation of just how the great developments in technology and science are really accomplished.

Reason tells us that most scientific breakthroughs are the end-product of distinctly unglamorous, long-drawn-out years of effort. . . with many people contributing bits and pieces of incremental knowledge to what may in the end become a major advance in any given field and the building of a technological pyramid.

But . . . even though we know all this . . . even though we who have devoted years of work in the textile field are well aware of how much painstaking effort was required to develop and improve our own technology . . . still we cannot rid ourselves entirely of the romantic notion that innovations and inventions in other fields are accomplished . . . as the movies would have us believe . . . in a far more revolutionary manner as a blinding flash of pure inspiration.

And who's to say that they are not.

Take, for example Einstein's Theory of Relativity. I have here in my hand a letter that Dr. Einstein wrote many years ago to his brother, Wilhelm. Let me read it to you . . .

My dear Wilhelm . . .

I think E equals M.V.². Otherwise, there's nothing else that's new. By the way, could you let me have another five dollars? That plus the five I already owe you will make it an even eight.

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Your loving brother,

Albert

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I must confess that the letter I've just read to you is an invention of my own. I don't know if Dr. Einstein ever had a brother named Wilhelm. And if he did, I'm not sure he ever borrowed a red cent from him. But I do know that he did discover the Theory of Relativity . . . and that this was a basic and fundamental and revolutionary discovery . . . as was Fulton's invention of the steam engine . . . Edison's invention of the light bulb. . . Franklin's discovery of electricity . . . Fermi's postulation of the theory of atomic energy . . . and in our own field . . . Charles Goodyear's discoveries of the vulcanization of rubber . . . of the first polystyrene plastic by Simon in 1839 . . . and the first synthetic nylon fiber by Dr. Carothers.

Very few inventions and discoveries belong in that category. For the most part, inventions are really improvements and embellishments of past discoveries. But since those of us in one field of technology always tend to believe that the grass is growing much faster and greener in another field, we in the textile business are likely to judge as revolutionary such developments as . . . heart transplants . . . laser instruments for denistry and for cornea transplants . . . computer technology . . . jet propulsion . . . antibiotics . . . television . . . communications via satellite. . . polio vacine and scientific farming.

The truth is that a good case could be made to prove that each of these developments should be classified as evolutionary rather than revolutionary.

Take heart transplant, for example. Despite the flood of publicity hearding recent accomplishments in this field, it is by no means a revolutionary development. For heart transplants were preceeded by kidney transplants in humans, and before that by a great deal of experimentation in the transplantation of both these organs in animals. It took long, hard years of research to perfect the surgical techniques and to gain some measure of control over body chemistry before transplantation of organs in humans became feasible.

And what about jet propulsion? We think of it as a relatively recent and revolutionary development. It is, in fact, a rather old one for which the patents have long since expired. The phenomenon upon which it is based is something we observed as children whenever we inflated a balloon and released it without closing the opening. it would jet through the air with remarkable speed!

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And as for Television . . . well the fact is that a major company had worked out all the details on TV broadcasting and receiving before 1935 . . . with the exception of the difficulty they were having in focusing the electron beams. This prevented them from broadcasting and receiving a sharp image. But they hired a young Ph.D. from the

Physics Department of Harvard and assigned him the task of solving this problem. Needless to say, he was successful and the company honored him by broadcasting his picture every five minutes in their TV exhibit at the 1939 World's Fair in New York.

But what about color TV? Surely that was a revolutionary development. It was not until 1964-65 that the same company was broadcasting pictures of pretty girls in color at the World's Fair exhibit. So sorry to disappoint you, but laboratory work on color TV preceeded the introduction by many years.

All of the ooh-ing and ah-ing about color reminds me of an experience I myself had in this area as long ago as 1935. A friend of mine who also happened to be a reporter for the Boston Post called to tell me that a number of financiers in the Boston area had been contacted by an individual who claimed to have developed phosphors which, when exposed to the light of a match, gave off a glow of such magnitude that it provided sufficient illumination to read a newspaper in a darkened room for hours.

My own reaction was one of disbelief. I recall quoting the theory that "energy could not be created or destroyed". . .and I told him that the light from a match would not be sufficient to accomplish what the inventor claimed.

My friend then asked if I would be willing to discuss the subject with the inventor himself, the press and with some of the potential financiers. I agreed. So they all came to the Harvard Chemical Labs. . .where I succeeded in exposing the promoter/inventor. He subsequently left town and everybody seemed happy.

But, about a week later, I got a frantic phone call from one of the financiers. To my surprise, he wanted to know how he could get in touch with the inventor. And when I asked him why he wanted to contact such an obvious fraud, he told me that despite the inventor's over-promotion of the phosphors, it was possible that some profitable application could be made of them. In fact, the financier himself had some great ideas on how the phosphors could be used in paints. He was sure he could make a fortune with them . . . and I had to admit that the phosphors I had seen were excellent ones that gave off beautiful colors when compared to the standards of that day.

Now. . .if in telling you this story I seem to be suggesting that you should welcome the next scientific fraud you encounter with open arms . . .that's not what I had in mind. My point is that many of the scientific marvels that have become old and familiar and taken-for-granted with the passage of time. . .can sometimes find new and exciting and profitable applications in other directions. This was certainly true of phosphorescent and fluorescent materials. They had been known for at least a century. . .and all it took was the development of a mechanical marvel . . . the color TV tube and circuitry . . . to take advantage in

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still another way of their God-Given characteristics. With few exceptions, this is true of all progress in scientific research. It takes both revolutionary and evolutionary paths. . .with all sorts of criss-crossings between discovery, development and practical application.

For the most part, of course, we can count on long years to elapse from the time when a basic discovery is made to the time when it is developed into an important practical application or put to profitable commercial use.

There are times, however, when extenuating circumstances force an acceleration of the pace . . . with the result that the elapsed time between discovery and end-use is greatly compressed. This was certainly true with respect to Atomic Energy . . . which was both discovered and put to use with revolutionary speed. In this instance, the extenuating circumstance was nothing less than the second World War. At stake were our whole political system and freedom itself. Is there any wonder then that we were prepared to muster the country's top technical brains and provide them with the full backing of our nation's resources to transform atomic energy into the atomic bomb at revolutionary speed!

During the same World War II period, the demands of modern warfare dictated another technical revolution that led to the quick development of a full blown synthetic rubber business in the U.S.A. With our natural rubber supply cut off and the subsequent shortage of truck tires threatening our mobility, American business . . . aided by an amazing degree of governmental cooperation . . . responded by developing synthetic rubber which had been discovered 100 years earlier into an industry capable of 670,000 tons annually within the short space of two years.

The lesson is plain for all to see. . .unless there is some extraordinary driving force. . .such as a war. . .or a national emergency. . .or some great shortage of a vital product. . .our progress in research and development is apt to be evolutionary. . .to move forward at quite a leisurely and unhurried pace.

It might even be possible to express this as a formula. You could take all of the available information. . .such as existing patents . . .growth of population. . .labor statistics. . .research and development activities. . .competitive pressures both domestic and foreign . . . the amount of investment required . . . et cetera. . . and putting all these factors together . . . you could probably come up with a good estimate as to the rate of progress that is likely to occur in product development and commercialization in any given field.

It's entirely possible that you wouldn't even have to take all of these factors into account. It's possible that just one of them would so

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overwhelm the others that no charting or weighing of factors would be required.

Let me cite a case in point. You may remember that about eight years ago, the development of the air-car was announced. As a matter of fact, some versions of this car are now in use on a limited scale in swamp lands.

Essentially, it is a car with a coated fabric skirt that's suspended above the ground by air pressure and propelled by jets or a propeller. Naturally, we were quite interested in this development. . .and for two reasons. First. . .because it meant that if this type of vehicle should replace the conventional automobile, it would open up a big market for coated fabrics. And secondly. . .because it would, at the same time, have a tremendously adverse effect on our tire market.

So we hastened to acquire every possible bit of engineering and performance data obtainable about the air-car. . .and it quickly became obvious to us that in spite of the manufacturer's claims . . . this type of vehicle could not operate effectively on conventional highways.

Wind and draft factors made it impossible for the air-car to travel at acceptable rates of speed and manage, at the same time, to stay in traffic lanes or even on the highways. So it was concluded. . .quite correctly. . .that the air-car was not usable on our present highway system. It became clear, too that because of the tremendous investment in both manpower and dollars required. . .it would take at least 25 years before suitable highways could be constructed.

However, we were able to foresee that the air-car could be used in specialized situations. . .and, as a result, a coated fabric business for air-car use is evolving on a limited basis.

The analysis of this particular situation was easy enough. But . . . there are others that tend to be much more complicated . . . and in these cases it is important that we take every single factor into consideration.

Off hand, I can think of at least 8 vital factors that will undoubtedly influence whatever revolutionary and evolutionary developments are in store for American fibers and textiles in the foreseeable future.

First . . . the pressure of foreign imports;

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Second . . . the demands of our own Safety Codes (especially with respect to Air Pollution in the manufacturing processes and Inflammability of product at the consumer end);

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Third . . . the developments of Creative Chemistry;

Fourth . . . the advances made in Automated Manufacturing Equipment;

Fifth . . . industrial requirements for specialized fibers & textiles;

Sixth . . . evolving fads and fashions in Styling;

Seventh . . . an insistence upon improved Household Performance
(particularly in the area of wrinkle-free, permanently
pressed and easy-to-maintain fabrics);

And Eighth. . . the requirements of our Military Establishment.

All of these factors. . .as well as others that you yourself may wish to include. . .are bound to have an important bearing on the progress of our textile technology.

Let's consider them individually.

Most important of all is the impact of foreign imports. Unfortunately, this is one area in which most of us tend to be dangerously complacent. After all, the current level of apparel and textile imports constitutes only about 12% of our domestic production. But. . .that 12% figure is a deceptive one. In terms of sheer tonnage it adds up to a huge influx of foreign fibers and textiles. Bear in mind that no single U.S. textile producer accounts for 12% of domestic production, and that will give you some idea of how many jobs and plant facilities could be added here in the U.S.A. if that 12% wasn't coming in from overseas.

And the situation is likely to get much worse before it gets better. The recent agreement reached in the so-called "Kennedy Round" of tariff negotiations at Geneva, Switzerland, could have serious consequences for our own industry. Under the terms of that agreement, tariff reductions are scheduled for some 6,000 products between 1968 and 1972. Among other things, the agreement calls for a sharp reduction in tariffs on spun yarns from both natural and man-made fibers, asbestos products, knitted fabrics, elastic yarns and tire cord. Passenger tires and polypropylene products competitive with those made in the U.S. will fall under the 50% tariff cut.

These tariff reductions have been well publicized abroad. As a result, European producers have an intensified awareness of the tremendous market potential that exists here in the U.S.A. It is reasonable to expect that they are gearing up to take fuller advantage of it.

Our own politicians are now giving some consideration to imposing import quotas in an effort to correct the situation. But this is, at best, only a short-term expedient. It does not provide us with an answer over the long haul.

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What's more, the problem is complicated by the fact that many of these foreign imports are not only lower in price but of good quality as well. It's often mentioned that we're competing with much lower labor costs from abroad. For example, it averages about 50 cents an hour in Japan, and 25 cents an hour in South Korea as compared with a \$2.00-per-hour average in the U. S. textile business.

But lower labor costs are not the only factor. Very little has been said about the fact that U. S. companies have sold American technology abroad. This includes both product and processing technology . . . and it is one of the big reasons why our foreign competition can make products of good quality through automated processes. Add that to their low labor costs and it's no wonder foreign competition is so rugged.

And the big question that faces us is simply this: Aside from political maneuverings, just what exactly are we going to do about this threat from abroad?

How will we meet the challenge?

Well, for one thing, I'd suggest that we make much more effective use of the most powerful weapon we have in our arsenal . . . Research and Development. It happens to be a weapon that we in the textile business have been woefully laggard in utilizing . . . especially in comparison with the way it has been brought to bear by other industries.

The figures speak for themselves. We in the textile business are spending somewhere in the neighborhood of .6% of sales for research and development . . . which is just about one-seventh of the percentage that all U. S. industry averages in R & D expenditures.

In fact, U. S. industry as a whole is in a mood to do some tall R & D spending over the next few years. Surveys taken by McGraw Hill's Economics Department, as reported in the May 18 issue of Business Week, indicate that the top U. S. companies plan to increase their R & D spending between now and 1971 by a full 25%. And they expect to see some substantial rewards for their efforts in the form of marketable new products. On the average, U. S. businessmen predict that 17% of their sales in 1971 will be derived from new, or substantially new, products. In terms of 1967 dollars,

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these U. S. producers are counting on sales of \$121-billion from new products just three years from now.

And how do we in the textile industry fit into that picture?

The answer is, we don't! That same Business Week article charts the expenditures for R & D by 15 separate industries, producers of both durable and non-durable goods. And where do we stand on that chart? Dead last. We were last in 1966 . . . last in 1967 . . . we'll be last again this year . . . and it's predicted that we'll have the dubious distinction of being last in 1971 . . . as well. It's estimated, for example, that \$50 million will be spent for research and development by textile mill product and apparel producers. Compare that with the six-billion three-hundred-and-forty-seven million-dollars that the aerospace industry alone will spend this year for research and development. Compare it with the \$4.2 billion to be spent for R & D by the electrical machinery and communications equipment industry. By comparison, our expenditures are a drop in the bucket. And by 1971, the situation won't be much better . . . unless we decide to do something about it now. Business Week estimates our R & D outlays in 1971 at something like \$62 million. The aerospace people will be up to \$8.4 billion by then and the electrical machinery and communications equipment people will be spending \$5.3 billion.

The total R & D in 1967 was \$16,789 million which is 2.1% of the Gross National Product of \$785 billion while textile and apparel R & D was 46 million or .25% of \$18,700 million contribution to the Gross National Product. .25% is only 1/8 of the average industry rate. These figures remind me of another statement of facts which goes like this. The U.S.A. has 6% of the World's population but does 50% of the work and consumes 40% of the raw material. Something to be proud of . . . but if what we read and hear is true, it is not because of textiles. Here we are on the defensive and must catch up. The only way appears to be through increased R & D.

That doesn't mean the picture is all bad. Despite the low level of expenditures, our R & D has already managed to offset foreign competition in some areas.

For instance, a number of U. S. companies have developed a synthetic backing for tufted carpets that is making inroads into the use of imported jute.

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We're also using synthetic fabrics to replace imported jute in the fabrication of sandbags for the government. And in the sophisticated tire cord field, American-made products are still holding their own.

Even when the foreign competition is particularly tough, R & D ingenuity can frequently find an answer. One example that comes to mind has to do with the marketing of soft side bags. About 60% of the bags sold in this country come from Japan and Korea. They're indistinguishable from the U. S.-made bags . . . but they're not made in factories . . . they're put together from pre-cut parts in private homes by women and children. So despite the import tax, these bags can be sold in the U.S.A. for 25% less than the ones we make. It would seem that this presents American competition with a hopeless task. Yet one American company is managing to meet the challenge. Through their own Research and Development, they've come up with a 100% molded bag of good appearance. And it is selling. So there's no reason to doubt that we can . . . by developing new automated production processes. . . challenge the imports in other areas as well.

Automation is, in still another way, a major factor governing the acceleration of our technology. Here again, we find ourselves lagging behind our foreign competition. In almost every area of textile equipment development . . . for weaving . . . knitting . . . and false twist texturizing . . . you'll find that the most efficient equipment has not been developed in the U.S.A. Our own textile equipment makers are not as active as their foreign competition.

But one thing is certain. All of the current developments in patents, lab equipment, pilot equipment and certain forms of production . . . reveal quite clearly that new automated yarn and new fabric-forming processes are evolving. This could literally revolutionize the textile industry within the next 15 years. And it points up the fact that there is a very pressing need for American companies to gain leadership in the development of automated equipment.

Still another factor that will influence the directions in which textile technology must evolve is the effect of our new Safety Codes. As you know, the Federal Government is very much concerned about reducing the number of injuries and fatalities caused by accidents in our industry. This is particularly true with respect to accidents caused by flammable fabrics, including clothing, drapes, carpets, bedding, etc. I have no doubt that the Safety Codes dealing with inflammability requirements will result in major changes in our fibers and textiles. Since the objective is worthwhile . . . and the government's pressure unrelenting . . . these changes could be brought about at revolutionary speed.

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A third factor influencing our technology will be the role played by creative chemistry. The chemist has discovered how to put together a multitude of monomers to make fiber-forming polymers. So it appears now that instead of a limited number of polymers being used in fibers, a great number will emerge and be used for quality and styling at lower cost. Perhaps you've already seen how one major fiber producer has been tantalizing the public with a mystery ad for a new fiber that is claimed to be better than the best we now have. There'll be many more new and better fibers. Our tremendous volume of over 8 billion pounds of natural and synthetic fiber can economically support large quantities of specialty polymers and fibers. You can look forward to the appearance of inorganic fiber-forming polymers as well as organic. It's feasible that asbestos will be replaced with a synthetic fiber . . . which could be a synthetic asbestos or a substitute that has the same characteristics of the asbestos fiber.

It has been said that necessity is the mother of invention. The necessities involved in the military requirements of our Armed Forces will certainly affect our technology in many ways.

For example, our military people feel that there is a need to cut the weight of their equipment by as much as 50% without any loss in performance. In the fabrics field, they're pursuing a very aggressive program to accomplish this objective. The process of developing lightweight, synthetic tentage to replace cotton tentage is well under way. Improvements in ballistic fabrics are being pushed . . . as well as in fabrics for military clothing. What they're looking for are super fabrics made from super fiber. And since military requirements tend to be very urgent in this day and age, you can expect developments in this area to proceed at a very fast pace.

Demands on our technology will also be coming thick and fast as a result of new and varied industrial requirements. In addition to the demand for a chemical filter fiber, there's rising pressure for the development of special fibers and fabrics for use in both air and water pollution control. And the new field of oceanography is already making demands on us for both new fibers and fabrics. For example, a synthetic sea weed fabric has been developed as a curtain to protect harbors from storms and drifting sands. It is conceivable this will be used in tremendous quantities. One thing is certain. . . industrial requirements are going to be so far-ranging and varied that an entire speech could be devoted to the many ways in which this will make accelerating demands on our technology.

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And who can doubt that we're going to be challenged by rapidly evolving fads and fashions in styling as well. We in the textile business live in a world of styling. Clothes, furniture, homes, automobiles and offices make great demands on our ingenuity for creating beautiful but durable fabrics. These demands will increase . . . and you can look for an even greater emphasis on colors. I wouldn't be surprised to see phosphors used for pigmentation. Patents have already been issued and small samples of fibers with fluorescent and phosphorescent pigments have been seen. The timing is right for such a development .

And, finally, you can look forward to stringent demands for improved Household Performance. The housewife wants much more than she's getting from our industry.

She wants carpets that do not retain soil. . . and that are capable of keeping their good appearance for a generation.

She wants drapes that don't fade and that resist soiling.

She wants upholstery that has good abrasion and resists soiling.

She wants sheets and pillow cases that can be washed and dried wrinkle-free. . . and still have a good feel to them.

She wants all of this. . . plus inflammability . . . beauty . . . and lower prices as well.

So it looks as if we've got our work cut out for us. There's a great deal that needs to be done. And I, for one, am proud to say that we at UNIROYAL are determined to do more than our share in bringing about an acceleration of technology in the textile field.

And that's not all. There are many projects we're working on that I wish I was at liberty to discuss. But the important fact is not what we're doing . . . but that we've got to do much more!

When we were children, there was a game we played in which we could only take a giant step by requesting permission to do so. We had to ask, "May I?" And if we didn't, we were penalized. We are not children now. . . and this is not a game we're playing. If we're really determined to face up to our foreign competition and assure a great future for our industry, we've got to meet the challenge by accelerating our textile technology . . . by spending far more for Research and Development. Only those who wait and ask, "May I?" before proceeding will be penalized. For the others . . . for those of us who are determined to seize the Research and Development initiative. . . the opportunities and the rewards can be limitless.

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Minutes

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Air Hygiene & Manufacturing Committee
Asbestos Textile Institute
June 6, 1968 - Regency Hyatt House, Atlanta, Ga.

In attendance:

H.H. Walter, Chairman	- American Asbestos Textile Corp.
L.E. Moody	- H.K. Porter Company, Inc.
H.M. Willingham	- Uniroyal, Inc.
L.C. Williams	- Raybestos, Manhattan, Inc.

Absent:

R.B. Smith	- Raybestos-Manhattan, Inc.
C.L. Sheckler	- Johns-Manville Corp.
K.W. Nelson	- American Smelting & Refining Co.
A.C. Link	- Uniroyal, Inc.
K.Q. Beyard	- Johns-Manville Products Corp.

Guests: Dr. L.J. Cralley - U.S. Department of Health, Education & Welfare.

Bausch & Lomb Automatic Dust Counter

Mr. L.C. Williams gave a report on the tests conducted at the Raybestos-Manhattan plant in Charleston, S.C. The instrument has performed to the fullest satisfaction and proven it's feasibility for spot checks as well as for the dust control (recording) over extended periods of time in connection with the Strip Chart Recorder.

To find a correlation between the Impinger and the Bausch & Lomb Dust Counter, the instruments were placed approximately one foot apart and operated simultaneously over a period of one-half hour. The strip chart was running at a speed of 12 inches per hour, therefore charting the dust counts over a length of 6 inches on No. 37-01-31 chart paper. To find the average dust concentration during the test period, the following method was applied:

The highest and the lowest points between each pair of verticle green lines - selecting the ones touched by the recorder pen - were determined, subsequently totaled and divided by the number of readings, resulting in the averages of the high and low dust concentrations respectively. Then the average between the average high and the average low dust concentration was determined, resulting in the average dust concentration during the test period. The results were then compared with the ones from the Impinger. A comparison shows that the figures are - with few exceptions - very close together. Variations between the figures do not show any clear pattern.

A number of advantages of the Bausch & Lomb Dust Counter versus the Impinger has evolved:

1. Dust concentrations can be shown and documented at any given moment over any length of time.
2. The chart paper represents a permanent record.
3. Any extreme dust concentrations can be traced to their cause, for example, opening of windows, increased vibration, broken ends, etc
4. The evaluation of dust counts is simple, and not readily susceptible to human error.

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Minutes - Air Hygiene & Mfg. Committee - continued: Page -2-

5. The instrument can be used for continuous unattended monitoring.
6. The operation does not require a skilled technician.
7. One person can easily conduct 25 to 30 tests per day, including the time needed for evaluation of the tests.
8. The dust counts can easily be broken down as to particle size.
9. The efficiency and simplicity of the instrument results in savings in labor cost. The instrument therefore should pay for itself in a relatively short period of time.

For the proper use of the Bausch & Lomb Dust Counter the following points should be watched carefully:

1. The air intake has to be protected by a screen in areas where many large fiber particles become airborne, to prevent the intake from clogging.
2. The instrument shall not be placed near a humidifier since it will record water droplets as dust.
3. The daily calibration requires special care and the instructions are to be followed closely.
4. Use of a pushcart is recommended whenever a series of tests in various locations is to be conducted.
5. For the use of the instrument over a longer period of time in same location, the use of an electrical outlet rather than of the batteries, is recommended.

The Dust Counter will be used at the Raybestos-Manhattan plant in Manheim, Penna., until the middle of July; then will be shipped to the Uniroyal Plant in Hogansville, Ga. The instrument may be shipped without any danger of damage, in a sturdy wooden box lined with Styrofoam.

Dust Control in the Manufacturing Process:

A member of the committee suggested that experiments should be conducted in wet spinning and/or wet twisting, since, due to proper enclosure the dust concentrations in the blending and carding operations are already reduced to a minimum. Although changes in the structure and appearance of the woven material will be unavoidable, it appears to be advisable to experiment in that direction for the protection of our employees and those of our customers. The application of proper finishing methods should also be explored to restore or even improve the appearance of material woven with wet spun and/or wet twisted yarns.

All committee members reported that their respective companies have discontinued the use of Lenox Anti-Fly SD-5. Most companies continue, however, the use of standard mineral oil in their blending operation. Efforts to find new spraying components to hold moisture in mixes are being made.

Environmental Health Survey

MS 005717

Dr. L.J. Cralley, U.S. Public Health Service, reported on the progress made in research of the influence of toxic trace metals in connection with asbestos fiber. Various important publications are to be expected in the near future.

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Minutes - Air Hygiene & Mfg. Committee - continued:

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Hygiene and Labor Relations:

All committee members present agreed that it seems to be imperative to improve working conditions, rest rooms, and the general plant appearance to an extent that the asbestos textile industry can compete successfully with other industries in attracting labor, inasmuch as a higher wage level does no longer mean a decisive factor in obtaining desirable operators. Air conditioning might become a "must" in the near future.

Respectfully submitted,

H. H. Walter
Chairman

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Minutes

SALES PROMOTION COMMITTEE
Asbestos Textile Institute

June 5, 1968 - Regency Hyatt House, Atlanta, Ga.

The Sales Promotion Committee met on June 6, 1968 with representatives of four member companies in attendance.

Many of you will recall past reports of this committee which described our concern of the threat of imported Japanese asbestos cloth. The latest reports obtained thru the Department of Commerce show that cloth imported into the U.S. from Japan increased 30% in 1967 versus 1966. Such a large percentage increase is alarming and the committee spent much of its time discussing weapons available to combat this threat. Some members feel that, because of the extremely low prices that this cloth is selling for, a possible charge of "dumping" might be leveled against the Japanese industry. We requested Counsel to investigate this possibility through an approach to the Board of Trade Commission. Many felt that an effective approach to the problem would be to attack in the market place since reports indicate that the Japanese are producing a generally inferior textile product. Since members reported a conflict in test results of Japanese cloth, it was decided to ask the Board of Governors to approach the Technical Committee for a cooperative effort on correlating test data in this area. Hopefully, this data will prove conclusively that Japanese cloth is demonstrably inferior and that this data will be available for the use of all members in the field.

At our last meeting it was reported that the Government procurement policy was such that member companies were discouraged in bidding. We felt that the Government procedures hindered us in submitting our best bids because of the excessive inventories that must be maintained in order to fulfill their oftentimes abnormal demands. Mr. Richard Clark and I visited their offices in Columbus, Ohio, in order to educate ourselves on the reasons for their policy and to ascertain whether or not we could influence them to change the procedure. We discussed this subject in detail at our meeting and arrived at the conclusion that as long as the system ~~presently~~ employed was, in truth, working to the best advantage to the Government, (though indeed not to the industry) we stood little chance of success to alter it.

As has become customary, we discussed at length the problem of the hazards involved in the processing and use of asbestos textile products. We remain vitally concerned about the problem and seek avenues leading to cooperative efforts of the other committees. Many suggestions were made and discussed thoroughly but each seemed to introduce more problems than solutions. However it does seem desirable to make a beginning in educating salesmen in the field so that they can answer queries concerning the health hazard. We feel that this should be the responsibility of each member company and it was decided that, for the time being, we should not try to approach the problem by collective action.

Respectfully submitted,

M.Q. SCOWCROFT, Chairman

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Minutes:- TECHNICAL COMMITTEE Meetings

Asbestos Textile Institute

April 4-5, 1968 at the Sheraton-Park Hotel, Washington, D.C.

In Attendance: William Maaskant - American Asbestos Textile Corp.
 G.E. Houghton - Garlock, Inc.
 J.D. McCluer - H.K. Porter Company, Inc.
 D.T. Austin, Jr. - Uniroyal, Inc.
 E.A. Morris - Uniroyal, Inc.
 P.J. Smith - ASTM
 J.W. Hawkins - Raybestos-Manhattan, Inc. (Chm)

The minutes of the Washington meeting are being combined with the minutes of the June meeting, below.

June 5 and 6, 1968, at the Regency Hyatt House, Atlanta, Ga.

In Attendance: G.E. Houghton - Garlock, Inc.
 J.D. McCluer - H.K. Porter Company, Inc.
 E.A. Morris - Uniroyal, Inc.
 D.F. Quealy - American Asbestos Textile Corp.
 P.J. Smith - ASTM
 J.W. Hawkins - Raybestos-Manhattan, Inc. (Chm)
 H.E. Sunbury - A.T.I.

Minutes:

The Washington meeting was devoted to completing the draft of ASTM Standard D 628 on Braided and Woven Sleeving. This was accomplished and submitted to Dr. Scroggie for editorial comments.

At the Washington meeting Mr. Irving Barnett of J/M was recommended to serve on USASI representing Sc.A-4 of ASTM D-13 and Mr. William Maaskant would be an alternate. The group will work on "Protective Occupation Apparel".

At the Atlanta meeting comments from Dr. Scroggie were reviewed on ASTM D 628 (Braided Sleeving). The 4th draft of this specification is complete and should be ready for a letter ballot before October.

Work has been started on the 1st draft of the Heat Aging Specification D 1573. The round-robin test on asbestos textile products is underway and will be completed prior to the October meeting.

A joint meeting will be held in October between the Fiber Testing Committee and the Technical Committee, also, a joint meeting will be held with Sc.A-4 of ASTM D-13.

Respectfully submitted,

John W. Hawkins
 Chairman

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MINUTES OF THE FIBER TESTING COMMITTEE

Asbestos Textile Institute

6th June, 1968 - The Regency Hyatt House, Atlanta, Ga.

Present:

Members: G.F.A. Brink, Chairman - Asbestos Corporation Limited
 O.E. Stiefken (*) - Lake Asbestos of Quebec Limited
 T.T. Tigert - - - Cassiar Asbestos Corporation Limited
 Visitors: W.H. Smith (**) - Bell Asbestos Mines Limited
 J.G. Berry - - - - Cassiar Asbestos Corporation Limited

(*) Replacing Mr. E.A. Farrell

(**) Substituting for Mr. R.J. Dodds-Hebron

Business:

1. Magnetic Rating Test

- 1.1 Calibrating Standards - The preparation and use of calibrating standards for the T. & N. Magnetic Rating apparatus, as well as other details relative to the new test method, were reviewed and discussed at some length. The chairman advised that 20 grams of the original U.S. Bureau of Standards magnetite Sample No. 29a was being turned over to the ATI Executive Secretary for safe keeping and future correlation work; and that correspondence was in progress to locate a suitable replacement for 29a.
- 1.2 The chairman was delegated to write Mr. Bernard Lincoln concerning the preparation of calibrating standards for the T. & N. apparatus, replacement of existing glass specimen holders with plastic cells; and the reproducibility of the test in the higher M.R. range.
- 1.3 The results of some preliminary tests to investigate the effect of sampling and conditioning on the M.R. results were reviewed. It was recommended that magnetic rating tests be performed on fibre samples in the "as received state", obtained by the normal sampling procedure outlined in the manual of "Testing Procedures for Chrysotile Asbestos Fibre, 1966 Edition", rather than to specify any special preparational treatment; but that reference be made to the fact that magnetic ratings are affected by degree of openness, or particle size, in a suitable preamble under the "Scope" of the test in the final write-up.
- 1.4 It was agreed that a tentative procedure for the Magnetic Rating Test in ASTM format be prepared for consideration at the next meeting. The interest of Subcommittee III, ASTM Committee D-30, in the Magnetic Rating test was mentioned.

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Minutes, Fibre Testing Committee, continued:

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- 1.5 The possible need for a combined meeting with the Technical Committee, when the results of their current Round Robin on textile products become available, was expressed.
2. Objectionable Spicular & Rock Content Test, - Possible approaches to develop a test method for the determination of the undesirable spicular and rock content of spinning fibres were discussed at some length. It was decided that a wet procedure based on the use of hydrocyclones had better possibilities than any known dry classification method. Accordingly, it was agreed that some preliminary work be carried out with hydrocyclones and that the test data and fractions recovered be presented at the next meeting of the Fiber Testing Committee.
3. Recent activities of the QAIA Technical and ASTM D-30, Sub.Com.III, of interest to ATI were briefly reviewed.
4. New Business, - Although no new business was tabled, member companies were requested to submit any problems and ideas they might have on fiber testing to the chairman prior to the October meeting. This will assist in guiding the activities of the Fiber Testing Committee to meet the requirements of ATI and make future meetings more interesting and worthwhile attending.

Respectfully submitted,

G.F.A. Brink
Chairman

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ASBESTOS TEXTILE INSTITUTE

Board of Governor's Meeting

October 3, 1968 - 9:00 P.M., Hotel Hershey, Hershey, Pa.

Agenda:

Call to Order - John L. Rainey, Chairman

Minutes of the last meeting

Financial Report - H.E. Sunbury, Asst. Treasurer

Annual Audit Report - J.L. Rainey

Report of Nominating Committee - John A. Brown, Jr., Chairman

Election of Officers

Appointment of Working Committee chairmen (Incumbents have served only one year of the normal two years term.)

(a) H.H. Walter, Chm.- Air Hygiene & Mfg. Comm.

(b) M.Q. Scowcroft, Chm.- Sales Promotion Comm.

(c) J.W. Hawkins, Chm.- Technical Comm.

(d) G.F.A. Brink, Chm.- Fiber Testing Comm.

A.T.I. Budget for 1969

Proposed Consultant on Dust Control

Research Project on Asbestos Waste by Syracuse University (for Govmt)

Letter of Condolence to Mrs. C.H. Carlough (Mr. Carlough died 6/17/68)

Speaker for the February 1969 meeting

Locations for 1969 meetings:

February 6-7, 1969 - GRAND Hotel, Point Clear, Ala. (Firm) (near Mobile)

June 18-20, 1969 - Seaview Country Club, Absecon, N.J. (Firm)

October 9-10, 1969 - The Carolina, Pinehurst, N.C. (Firm) This will be the 25th Anniversary of A.T.I.)

Suggested locations for meetings in 1970:

February 1970 - Atlanta, Ga.

June 1970 - (?)

October 1970 - Pocono Mountains, or other mountain location.

Other business

Adjournment

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Minutes

BOARD OF GOVERNOR'S MEETING

October 3, 1968 - 9:00 P.M., Hotel Hershey, Hershey, Pa.

In attendance:

J.L. Rainey - American Asbestos Textile Corporation
 E.A. Schuman - Johns-Manville Corporation
 J.A. Brown, Jr. - Raybestos-Manhattan, Inc.
 L.E. Moody - H.K. Porter Company, Inc.
 R.P. Clark - Uniroyal, Inc.
 P. Jay Flocken - Legal Counsel, Cadwalader, Wickersham & Taft
 H.E. Sunbury - Secretary, A.T.I.

Absent: J.L. Mitchell - Tallman, McCluskey Fabrics Co.
 G.P. Wiess - Garlock, Inc.

Guests: C.L. Sheckler, Johns-Manville Corporation

**** Minutes ****

1. President Rainey called the meeting to order and deferred the regular order of business to permit Mr. C.L. Sheckler to address the Board.

2. Mr. Sheckler explained what he felt the A.T.I. should attempt to accomplish in the way of industry-wide efforts to reduce the dust hazard to operatives. For example, "wet-weaving" should be adopted industry wide. Stated that the British asbestos textile industry have done this. Feels also, that in the future there will be a law making wet-weaving mandatory.

Mr. Sheckler recommended that A.T.I. set up an "Environmental Control Committee" and offered suggestions as to its membership. He visualized that this committee would release news on Health Problems, handle liaison between companies on mutual problems, and liaison with other groups like Insulation Mfrs. Association. He mentioned that his company was now cooperating with Dr. Selikoff, widely known for his research work on health of asbestos pipe-coverers, who has recently been named to head an "Insulation Industry Hygiene Research Program", a combined effort involving an international labor union, industry, medical science, and the Federal Gov't.

3. Mr. J.A. Brown, Jr. moved that A.T.I. set up a committee as recommended by Mr. Sheckler. Motion was seconded by Mr. L.E. Moody.
 Approval was unanimous.

4. President Rainey offered for consideration a suggested resolution:
 "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible and acting on the advice of the Air Hygiene & Manufacturing Committee, recommends that all member companies of the Institute consider adoption of the 'wet-weaving' process with all deliberate speed."

Mr. R.P. Clark moved that the Resolution be approved, his motion was seconded by J.A. Brown, Jr., and approval was by unanimous vote.

(continued)

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Minutes -Board of Governors Meeting - continued: Page -2-

5. The minutes of the last meeting were presented for reading . On motion made by R.P. Clark, seconded by E.A. Schuman, it was voted to omit the reading of the minutes.

6. The Financial Report as of September 10th,1968, was presented by the Secretary. R.P. Clark moved that the report be accepted, and this motion was seconded by E.A. Schuman. So voted, and the Report is attached to these minutes. Mr. Rainey reported that the Annual Audit of the Institute's books had been made by Mr. James D. Smith, accountant employed by our member company, GARLOCK INC., and that he had a letter from Mr. Smith dated September 23,1968, stating that the Report of September 10th,1968 as presented by the Secretary, represented the financial position of the Institute on that date. A copy of the auditor's letter is attached to these minutes.

7. Mr. J.A. Brown, Jr., Chairman of the Nominating Committee, reported that he had canvassed the member companies to determine who would represent them on the Board of Governors for the coming year, and that the following have been designated by their respective companies:

John A. Brown, Jr. - Raybestos-Manhattan, Inc.
R.P. Clark - Uniroyal, Inc.
J.L. Mitchell - Tallman-McCluskey Fabrics Co.
L.E. Moody - H.K. Porter Company, Inc.
J.L. Rainey - American Asbestos Textile Corp.
E.A. Schuman - Johns-Manville Corp.
G.P. Wiess - Garlock Inc.

8. Election of Officers: - Mr. J.A. Brown, Jr., Chairman of the Nominating Committee, submitted a slate of officers for the coming year:-

For President -- E.A. Schuman
" Vice President - R.P. Clark
" Treasurer - M.Q. Scowcroft (Raybestos-Manhattan)

There being no other nominations it was moved by J.A. Brown, Jr., and seconded by L.E. Moody, that the slate of officers as submitted be accepted. Election was by unanimous vote.

9. It was agreed that the respective chairmen of our four working committees should be continued for another year, inasmuch as each has completed only one year of the normal two-year term.

10. The Secretary presented a suggested Institute Budget for the year 1969. President Rainey deferred discussion of same until later in the meeting.

11. President Rainey read a letter from Syracuse University stating they had a three year contract (or grant) from the Dept. of HEW to study the origin, quantities, and characteristics of wastes which result from production in our industry, and requesting the cooperation of his company in supplying the needed information for their research. Several of the members stated they also had received the same letter from Syracuse University. No discussion or comments were made.

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minutes - Board of Governor's Meeting - continued: Page -3-

12. President Rainey reported the death of C.H. Carlough, first President of the Asbestos Textile Institute (1945 - 1946) which occurred on June 17, 1968, and read a letter of condolence that he had written and sent to Mrs. Carlough on behalf of the Institute.

13. Speaker for the February 1969 meeting. Mr. Rainey stated that his company would make every effort to supply a suitable speaker.

14. President Rainey asked if there were any objections to holding the February 1969 meeting at the GRAND Hotel, Point Clear, Ala., and none were voiced. The dates are Feb-

MS 005726

16. There was no further business and the meeting adjourned.

Respectfully submitted,

H.E. Sunbury
H.E. Sunbury - Secretary

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Addendum: The suggested budget for 1969, including the increase in the Legal Retainer as voted in Paragraph 15 above, was circulated by mail to Board members after the meeting, and approved by them.

MT-005132



September 23, 1968

Mr. J.L. Rainey, President
Asbestos Textile Institute
c/o American Asbestos Textile Corp.
P.O. Box 228
Norristown, Pa. 19404

Dear Mr. Rainey:

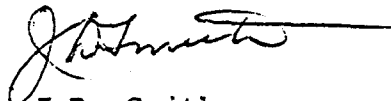
The attached report of Funds, Assets and Liabilities and related activity for Asbestos Textile Institute for the 12 month period ending September 10, 1968 was examined.

Bank balances as shown on the statement, were reconciled with bank records.

In my opinion, the attached statement dated September 10, 1968 represents the financial position of the institute on that date.

All records have been returned to Mr. H.E. Sunbury under separate cover.

Very truly yours,


J.D. Smith

JDS:ld
Attach:
cc:
Mr. N.L.A. Martucci
Garlock Inc.
1250 Midtown Tower
Rochester, N.Y. 14604

Mr. H.E. Sunbury
Asbestos Textile Institute
P.O. Box 239
75 Center Street
Pompton Lakes, N.J. 07442

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ASBESTOS TEXTILE INSTITUTE

Report of FundsSeptember 10, 1968Balance on Hand at last Report (May 8, 1968)

General Fund	\$ 3456.84
Savings Fund	20692.66
Petty Cash Fund	35.23

\$24184.73

Receipts

To Savings Fund (Interest to 6/30/68)	252.28
To General Fund (Book Sales)	28.80

281.08

Total On Hand and Received\$24465.81Disbursements

Legal Retainer (3 mos. ending 5/31/68)	500.00
Secretary's Salary (4 mos.)	478.00
F.I.C.A. Tax (2nd Qtr 1968)	33.00
Secretary's Travel	210.00
Office Rent (4 mos.)	300.00
Printing & Office Supplies	37.60
A.T.I. Meeting Expense (June 5-7, 1968)	720.45
Telephone (4 mos.)	152.23
Revision of ASTM Specifications	110.30
Purchase of Imported Asbestos Cloth (Test)	135.46
Petty Cash (Vouchers 360-372 incl.)	62.02

Total Disbursements2739.06Balance On Hand September 10, 1968\$21726.75Funds

General Fund (Bank Statement 9/10/68)	743.83
Savings Fund	20944.94
Petty Cash Fund	37.98

Total Funds\$21726.75Assets as of September 10, 1968

General Fund	743.83
Savings Fund	20944.94
Petty Cash Fund	37.98
Accts Receivable (Book Sales)	18.03
Postage on Hand	2.83
Furniture & Equipment (Nominal Value)	1.00

Total Assets\$21748.61LiabilitiesAccts Payable as of Sept. 10, 1968100.00Net Worth\$21648.61

Respectfully submitted,

H. E. Sunbury
H.E. Sunbury
Asst. Treasurer

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ASBESTOS TEXTILE INSTITUTE

Budget for 1969

Item	1968 Budget	Disbursements 12 months ending 9/10/68	Approved Proposed Budget for 1969
Secretary's salary	\$ 1434.00	\$ 1434.00	\$ 1426.50
F.I.C.A. Tax	132.00	132.00	147.00
Secretary's travel	500.00	529.00	500.00
Office rent	900.00	900.00	900.00
Legal Retainer	2000.00	1500.00 (*)	2000.00 (**)
Legal travel & other exp.	300.00	270.98 (*)	500.00
C.P.A. (Caruso)	300.00	300.00	300.00
Meeting Expense (3 mtgs)	2700.00	2375.55	2700.00
Exhibit Expense	300.00	245.80	-----
ASTM & I.H.F. Dues	135.00	135.00	135.00
Office expense	1300.00	1149.99	1300.00
Revision of ASTM Specs.	300.00	179.55	200.00
B. & L. Dust Counting Equip.	4814.00	4814.00	-----
Insurance on B. & L. "	-----	120.00	110.00
Incidentals	200.00	135.46	200.00
A.T.I. 25th Anniversary	-----	-----	500.00

Totals \$15315.00 \$14221.33 \$10918.50

(*) 9 months

(**) Plus increase in Legal Retainer approved 10/3/68 1000.00

Source of funds to meet 1969 Budget Total Budget \$11918.50

Dues, Class "A" members	-----	5 @ \$1000.00	-----	\$ 5000.00
" " "B" "	-----	2 @ 500.00	-----	1000.00
" " "C" "	-----	4 @ 500.00	-----	2000.00
" " "D" "	-----	4 @ 250.00	-----	1000.00
Book Sales to non-members (\$138.24 in last 12 months)				150.00
Interest on Savings Fund (Estimated)				720.00
By transfer from Savings Fund				1048.50
				2048.50

Total \$10918.50
\$11918.50

Breakdown of Office Expense

(12 months ending 9/10/68)

Printing & Office Supplies	--- \$ 199.88
Stenographic help	----- 112.00
Telephone (12 months)	----- 364.60
Petty Cash (Stamps, etc.)	----- 205.71
New Typewriter	----- 267.80

Total \$1149.99

MS 005729

Prepared by: H.E. Sunbury, Asst. Treasurer

About the Speaker:

Dr. Albert G. Matamoros

Armstrong Cork Company
Lancaster, Pa.

Albert G. Matamoros, as Chief Economist and a senior officer of the Armstrong Cork Company, directs the environmental research programs required for company planning. He is also responsible for coordinating the Company's relations with the investment community.

A native of New York City, he holds three degrees from New York University, including a Ph.D. in Economics and Finance.

Dr. Matamoros joined Armstrong in 1955 after several years' experience as an economist with American Cyanamid Company and previously as senior economist for a New York business consulting firm.

His Memberships include:

Advisory Council on Federal Reports - U.S. Bureau of the Budget
American Economic Association
American Finance Association
American Marketing Association
American Statistical Association
Conference of Business Economists
Discussion Group of Industrial Economists - Harvard Business Sch.
District Round Table Economists' Group of the Cleveland
Federal Reserve Bank
Economists' Discussion Group of the Philadelphia Federal
Reserve Bank
Financial Analysts of Philadelphia
Forecasters' Club of New York
Governor's Economic Advisory Council (Pennsylvania)
National Association of Business Economists
Pennsylvania Conference of Economists

His Publications include:

Financial Indicators as a Tool of Business Research
The Role of the Business Economist
The Need for Social Science Research in the Home Building Ind'y
The Role of the Social Scientist in Business

MS 005730

MT-005136

ROSTER

ASBESTOS TEXTILE INSTITUTE

P. O. Box 239, Pompton Lakes, N. J. 07442

* * * *

AMERICAN ASBESTOS TEXTILE CORP.

Norristown, Pa.

GARLOCK INC.

Palmyra, New York

JOHNS-MANVILLE CORPORATION

New York, N. Y.

H. K. PORTER CO. INC.

Charlotte, N. C.

RAYBESTOS-MANHATTAN, INC.

Manheim, Pa.

TALLMAN-McCLUSKEY FABRICS CO.

St. Louis, Mo.

UNIROYAL, INC.

New York, N. Y.

ASBESTOS CORPORATION, LTD.

Thetford Mines, Quebec, Canada

BELL ASBESTOS MINES, LTD.

Thetford Mines, Quebec, Canada

BRITISH BELTING AND ASBESTOS, LTD.

Cleckheaton, Yorkshire, England

CASSIAR ASBESTOS CORP., LTD.

Toronto, Canada

HILADOS Y TEJIDOS DE ASBESTO, S. A.

Toluca, Mexico

LAKE ASBESTOS OF QUEBEC, LTD.

Black Lake, Quebec, Canada

SOCIETE ANONYME FRANCAISE DU FERODO

Paris, France

TURNER BROTHERS ASBESTOS CO., LTD.

Rochdale, England



2/68

ASBESTOS TEXTILE INSTITUTE

—FOUNDED 1944—

ATI-131

GENERAL MEETING

1-15-1948
2-1-1948

MS 005731

MT-005137

ASBESTOS TEXTILE INSTITUTE

President ----- J.L. Rainey
Vice President ----- E.A. Schuman
Treasurer ----- M.L.A. Martucci
Exec. Secretary --- H.E. Sumbury
Legal Counsel ----- P.Jay Flocken

BOARD OF GOVERNORS

J.L. Rainey, Chairman
J.A. Brown, Jr., R.P. Clark, L.E. Moody
J.L. Mitchell, E.A. Schuman, G.F. Wiess

AIR HYGIENE & HFG. COMMITTEE

H.H. Walter, Chairman
A.C. Link, L.E. Moody, K.W. Nelson
W.C. Seeds, C.L. Sheckler, R.B. Smith
L.C. Williams, H.M. Willingham

TECHNICAL COMMITTEE

J.W. Hawkins, Chairman
D.T. Austin, Jr., G.E. Houghton, J.D. McCluer
Wm. Maaskant, E.A. Morris, D.F. Queally

SALES PROMOTION COMMITTEE

M.Q. SCOWCROFT, Chairman
J.A. Brown, Jr., J.W. Christenbury,
R.P. Clark, A. Kuzmuk, J.L. Mitchell,
J.L. Rainey, E.A. Schuman

FIBER TESTING COMMITTEE

G.F.A. Brink, Chairman
I. Barnett, D.B. Childers, R. Doids-Hebron
J.W. Hawkins, B. Lincoln, C.E. Stiefen
W.C. Streib, T.T. Tigert, J.P. Wronski

FIBER COMMITTEE

J.L. Rainey, Chairman
M.P. Carson, J.L. Rainey, M.W. Hendry
R.J. Messel, W.W. Osgood, F.P. Smith
Mm. J.W. Smith

ASBESTOS TEXTILE INSTITUTE

ANNUAL MEETING, October 2-4, 1968

Location: - HOTEL HERSHEY, Hershey, Penna.

Wednesday, October 2, 1968

Registration

Social Hour - 6:00 PM

Thursday, October 3, 1968

Committee meetings - 8:30 AM to 12:00 noon

Thursday PM - Open, no meetings scheduled.

Social Hour - 6:00 PM

Board of Governor's meeting - 9:00 PM

Friday, October 4, 1968

GENERAL MEETING - 9:30 AM

Reception - 12:00 noon; Luncheon - 12:30 PM

Adjournment

Note: Ladies are invited to Social Hours,
also the Reception and Luncheon.

For location of meetings inquire at
the Registration Desk.

ATI-131

ASBESTOS TEXTILE INSTITUTE

GENERAL MEETING

October 4, 1968 - Hotel Hershey

Agenda

Call to Order - 9:30 A.M. - J.L. Rainey
President

Introductions

Minutes of the last meeting

Financial Report

Legal Counsel Report - P.Jay Flocken, Atty.

Fibre Producers Report - Mr. M.P. Carson (*)

Tribute to Miss E.E. Cox, Guest of Honor

Talk:- "Business Prospects and Problems in
the Year Ahead"- Dr.A.G.Matamoros,
Chief Economist, Armstrong Cork Co.

Committee Reports

Air Hygiene & Mfg. - H.H. Walter, Chm.

Sales Promotion - M.Q. Scowcroft, Chm.

Technical - J.W. Hawkins, Chm.

Fiber Testing- G.F.A. Brink, Chm.

Date and Location of next meeting

Other business

Reception - 12:00 Noon, Luncheon - 12:30 P.M.
Adjournment

(*) Vice President - Sales, ASBESTOS CORP'N

MS 005733

MT-005139



*ASBESTOS
TEXTILE
INSTITUTE*

—FOUNDED 1944—

GENERAL MEETING

*Hershey, Pa.
Oct. 1968*

MS 005734

MT-005140

ASBESTOS TEXTILE INSTITUTE

President ----- J.L. Rainey
 Vice President ---- E.A. Schuman
 Treasurer ----- N.L.A. Martucci
 Exec. Secretary --- H.E. Sunbury
 Legal Counsel ----- P.Jay Flocken

BOARD OF GOVERNORS

J.L. Rainey, Chairman
 J.A. Brown, Jr., R.P. Clark, L.E. Moody
 J.L. Mitchell, E.A. Schuman, G.P. Wiess

AIR HYGIENE & MFG. COMMITTEE

H.H. Walter, Chairman
 A.C. Link, L.E. Moody, K.W. Nelson
 W.C. Seeds, C.L. Sheckler, R.B. Smith
 L.C. Williams, H.M. Willingham

TECHNICAL COMMITTEE

J.W. Hawkins, Chairman
 D.T. Austin, Jr., G.E. Houghton, J.D. McCluer
 Wm. Maaskant, E.A. Morris, D.F. Quealy

SALES PROMOTION COMMITTEE

H.Q. SCOWCROFT, Chairman
 J.A. Brown, Jr., J.W. Christenbury,
 R.P. Clark, A. Kuzmuk, J.L. Mitchell,
 J.L. Rainey, E.A. Schuman

FIBER TESTING COMMITTEE

G.F.A. Drink, Chairman
 I. Barnett, D.D. Childers, R. Dadds-Hebron
 J.W. Hawkins, B. Lincoln, C.E. Stiefken
 W.C. Streib, T.T. Tigert, J.P. Wronski

FIBRE COMMITTEE

M.P. Carson, J.W. Christenbury, N.W. Hendry
 M.J. Kessel, W.W. Oughtred, F.P. Smith
 Wm. J.W. Smith

MS 005735

MT-005141

ASBESTOS TEXTILE INSTITUTE

ANNUAL MEETING, October 2-4, 1968

Location: - HOTEL HERSHEY, Hershey, Penna.

Wednesday, October 2, 1968

Registration

Social Hour - 6:00 PM

Thursday, October 3, 1968

Committee meetings - 8:30 AM to 12:00 noon

Thursday PM - Open, no meetings scheduled.

Social Hour - 6:00 PM

Board of Governor's meeting - 9:00 PM

Friday, October 4, 1968

GENERAL MEETING - 9:30 AM

Reception - 12:00 noon; Luncheon - 12:30 PM

Adjournment

Note: Ladies are invited to Social Hours,
also the Reception and Luncheon.

For location of meetings inquire at
the Registration Desk.

MS 005736

PRODUCED
JM - 83

MT-005142

ASBESTOS HEALTH SEMINAR

October 2nd, 1968 - 2:00 P.M.

Hotel Hershey, Hershey, Pa.

Sponsor: Asbestos Textile Institute

Program Chairman: Mr. C.L. Sheckler

AGENDA

1. Introduction
J.L. Rainey, President of Asbestos Textile Institute
Vice President, American Asbestos Textile Corporation
C.L. Sheckler, Manager of Occupational Environmental Control,
Johns-Manville Corporation
2. News Headlines and Public Relations
W.P. Raines, Director of Public Relations, Johns-Manville Corp.
3. Biological Effects of Asbestos
Dr. George W. Wright, St. Lukes Hospital, Cleveland, Ohio
Chairman, Institute of Environmental and Occupational Health
4. Organizing and Engineering for Dust Control
E.M. Fenner, Director of Environmental Control, Johns-Manville Co.
5. Asbestos Research Progress
Dr. L.J. Cralley, Director of Epidemiological and Field Studies
United States Public Health Service
6. Legislation, Litigation and Action Programs
C.L. Sheckler, Johns-Manville Corp.
7. Question and Answer Period
8. Summary
J.L. Rainey, President of A.T.I.

Note: The program is scheduled for approximately three hours duration.

MS 005737

MT-005143

ASBESTOS TEXTILE INSTITUTE

GENERAL MEETING

October 4, 1968 - Hotel Hershey

Agenda

Call to Order - 9:30 A.M. - J.L. Rainey
President

Introductions

Minutes of the last meeting

Financial Report

Legal Counsel Report - P.Jay Flocken, Atty.

Fibre Producers Report - Mr. M.P. Carson (*)

Tribute to Miss E.E. Cox, Guest of Honor

Talk:- "Business Prospects and Problems in
the Year Ahead"- Dr.A.G.Matamoros,
Chief Economist, Armstrong Cork Co.

Committee Reports

Air Hygiene & Mfg. - H.H. Walter, Chm.

Sales Promotion - M.Q. Scowcroft, Chm.

Technical - J.W. Hawkins, Chm.

Fiber Testing- G.F.A. Brink, Chm.

Date and Location of next meeting

Other business

Reception - 12:00 Noon, Luncheon - 12:30 P.M.
Adjournment

(*) Vice President - Sales, ASBESTOS CORP'N

PRODUCED
JM - 83

R O S T E R

ASBESTOS TEXTILE INSTITUTE
P. O. Box 239, Pompton Lakes, N. J. 07442

* * * *

AMERICAN ASBESTOS TEXTILE CORP.
Norristown, Pa.

GARLOCK INC.
Palmyra, New York

JOHNS-MANVILLE CORPORATION
New York, N. Y.

H. K. PORTER CO. INC.
Charlotte, N. C.

RAYBESTOS-MANHATTAN, INC.
Manheim, Pa.

TALLMAN-McCLUSKEY FABRICS CO.
St. Louis, Mo.

UNIROYAL, INC.
New York, N. Y.

ASBESTOS CORPORATION, LTD.
Thetford Mines, Quebec, Canada

BELL ASBESTOS MINES, LTD.
Thetford Mines, Quebec, Canada

BRITISH BELTING AND ASBESTOS, LTD.
Cleckheaton, Yorkshire, England

CASSIAR ASBESTOS CORP., LTD.
Toronto, Canada

HILADOS Y TEJIDOS DE ASBESTO, S. A.
Toluca, Mexico

LAKE ASBESTOS OF QUEBEC, LTD.
Black Lake, Quebec, Canada

SOCIETE ANONYME FRANCAISE DU FERODO
Paris, France

TURNER BROTHERS ASBESTOS CO., LTD.
Rochdale, England

MS 005739

PRODUCED
JM - 83

MT-005145

GENERAL MEETING - ASBESTOS TEXTILE INSTITUTE

October 4, 1968 - Hotel Hershey, Hershey, Pa.

In attendance:

AMERICAN ASBESTOS TEXTILE CORP.

J.W. Weber
J.L. Rainey
G.S. Fabel
H.H. Walter
J.W. Christenbury
Wm. Maaskant

GARLOCK INC.

G.E. Houghton
S.G. Dixit

JOHNS-MANVILLE CORP.

E.H. Wells
R.H. Billings
W.P. Raines
E.A. Schuman
C.L. Sheckler
E.M. Fenner
I. Barnett
W.C. Seeds
W.C. Streib
N.W. Hendry (Can. J.M. Co.)

H.K. PORTER COMPANY, INC.

L.E. Moody
J.D. McCluer
D.E. Childers
G.J. Harris
J.W. Echerd

RAYBESTOS-MANHATTAN, INC.

J.A. Brown, Jr.
M.Q. Scowcroft
J.W. Hawkins
L.C. Williams
R.B. Smith
J.P. Wronski
J.A. Bettles, Jr. (Retired)
A.R. Patterson

ASBESTOS CORPORATION LIMITED

M.P. Carson
P.E. Leclerc
G.F.A. Brink

BELL ASBESTOS MINES LIMITED

Wm. J.W. Smith
R.J. Dodds-Hebron

CASSIAR ASBESTOS CORP., LTD.

J.G. Berry

LAKE ASBESTOS OF QUEBEC LTD.

E.A. Farrell
C.E. Stiefken

TURNER & NEWALL LTD.

B. Lincoln

CADWALADER, WICKERSHAM & TAFT

P. Jay Flocken (Legal Counsel)

U.S. PUBLIC HEALTH SERVICE

Dr. L.J. Cralley

UNIROYAL, INC.

R.P. Clark
R.C. Hunt
D.T. Austin, Jr.
H.M. Willingham
E.A. Morris
Dr. J.G. Wells

ASBESTOS TEXTILE INSTITUTE

H.E. Sunbury (Secretary)

GUESTS

Miss Edith E. Cox (Guest-of-Honor) Asbestos Mag'ne
Mr. A.G. Matamoros (Guest Speaker)
Mr. D.R. Holmes, Asten-Hill Mfg. Co.
Mr. C.J. Stover, Asbestos Magazine

In addition, approximately twenty-four wives of members were present at Social Hours and at the luncheon on Friday noon, October 4th.

(continued)

PRODUCED
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MT-005146

MS 005740

Minutes - General Meeting - continued:

Page -2-

1. President Rainey called the meeting to order at 9:30 A.M. and welcomed members and guests to our twenty-fourth Annual Meeting.

Referring to the well attended "Asbestos Health Seminar" held on the afternoon of October 2nd, 1968, Mr. Rainey expressed appreciation on behalf of the Institute to its Chairman, Mr. C.L. Sheckler of Johns-Manville Corporation, for the fine program. The Agenda for the Seminar is attached to these minutes.

2. The minutes of the last meeting were presented for reading. It was moved by J.A. Brown, Jr., that reading be omitted. His motion was seconded by J.W. Christenbury, and so voted.

3. The Financial Report was presented by E.A. Schuman. On motion made by R.P. Clark, seconded by J.A. Brown, Jr., it was voted to accept the report, and same is attached to these minutes.

Mr. Rainey reported that the Annual Audit of the Institute's books had been made by Mr. James D. Smith, accountant employed by our member company, GARLOCK INC., and that he had a letter from Mr. Smith dated September 23, 1968 stating that the report of September 10, 1968 distributed to members at this meeting, did represent the financial position of the Institute on that date.

MS 005741

PRODUCED
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MT-005147

5. The Fibre Producer's Report was given by Mr. M.P. Carson, Vice President - Sales, ASBESTOS CORPORATION LIMITED, Thetford Mines, P.Q. and his interesting and informative report is attached.

6. Guest-of-Honor, Miss Edith E. Cox, retired editor of ASBESTOS Magazine, was introduced by Mr. J.A. Bettles, Jr., a former president of the Institute. Mr. Bettles paid fitting tribute to Miss Cox for her service to the asbestos industry for a period of more than fifty years. President Rainey presented Miss Cox with a memento of the occasion, and there was a standing ovation in her honor. Miss Cox responded most graciously, and said she appreciated very much the opportunity to attend the meeting.

7. President Rainey introduced Dr. A.G. Matamoros, Chief Economist of Armstrong Cork Company, A nationally recognized economist, Dr. Matamoros spoke on the subject: "Business Prospects and Problems in the Year Ahead". His talk was extremely interesting, and was followed by many questions from his audience. President Rainey thanked Dr. Matamoros on behalf of the members.

8. The committee reports were given by the respective chairmen:

Air Hygiene & Mfg. Committee - H.H. Walter, Chairman
Sales Promotion Committee - M.Q. Scowcroft, Chairman
Technical Committee - J.W. Hawkins, Chairman
Fiber Testing Committee - G.F.A. Brink, Chairman

The full text of their reports is attached to these minutes.

9. President Rainey, following the report of the Air Hygiene & Mfg. Committee, stated that the Board of Governors had voted unanimous approval of that committee's recommendation in respect to adoption of 'wet-weaving' of asbestos fabrics, and had passed the following Resolution: - "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible and acting on the advice of the Air Hygiene & Mfg. Committee, recommends that all member companies of the Institute consider adoption of the 'wet-weaving' process with all deliberate speed."

10. President Rainey announced that the Board of Governors had voted unanimously to set up a new committee tentatively titled "Environmental Control Committee", and asked Mr. C.L. Sheckler, Manager of Occupational Environmental Control, Johns-Manville, Corp., to comment on its purpose. Mr. Sheckler mentioned that the new committee, as presently envisaged, would release news on Health Problems, handle liaison between companies on mutual problems, and also handle liaison with other groups like Insulation Mfg. Assoc.,

(continued)

PRODUCED
JM - 83

Minutes - General Meeting - continued:

Page -4-

as part of the activities of the new committee, and felt that it would render a very important service to our industry.

11. President Rainey announced that representatives of the member companies now serving on the Board of Governors would continue without change, and also, that the members of the Board had elected new officers to serve for the coming year, namely:

President - E.A. Schuman, Johns-Manville Corp.

Vice President - R.P. Clark, Uniroyal, Inc.

Treasurer - M.Q. Scowcroft, Raybestos-Manhattan, Inc.

12. Mr. Rainey announced that the next meeting of the A.T.I. would be held at the GRAND HOTEL, Point Clear, Ala. (near Mobile) and the dates are February 6-7, 1969. This is a very famous hostelry, and those who have attended meetings of other associations there are sure that A.T.I. members and their wives will greatly enjoy their visit to the GRAND HOTEL.

13. The meeting recessed for luncheon, during which "Jack" Rainey, retiring president was presented with an Atmos clock in appreciation of his outstanding leadership of the Institute during the past two years. Mr. Rainey thanked the members for the gift and for their cooperation during his tenure as president, and received a fine hand and standing ovation following his remarks.

14. After the luncheon the meeting adjourned.

Respectfully submitted,

H.E. Sunbury
H.E. Sunbury
Secretary

MS 005743

PRODUCED
JM - 83

MT-005149

ASBESTOS TEXTILE INSTITUTE

Report of Funds

September 10, 1968

Balance on Hand at last Report (May 8, 1968)

General Fund	\$ 3456.84	
Savings Fund	20692.66	
Petty Cash Fund	35.23	
		\$24184.73

Receipts

To Savings Fund (Interest to 6/30/68)	252.28	
To General Fund (Book Sales)	28.80	
		281.08

Total On Hand and Received

\$24465.81

Disbursements

Legal Retainer (3 mos. ending 5/31/68)	500.00
Secretary's Salary (4 mos.)	478.00
F.I.C.A. Tax (2nd Qtr 1968)	33.00
Secretary's Travel	210.00
Office Rent (4 mos.)	300.00
Printing & Office Supplies	37.60
A.T.I. Meeting Expense (June 5-7, 1968)	720.45
Telephone (4 mos.)	152.23
Revision of ASTM Specifications	110.30
Purchase of Imported Asbestos Cloth (Test)	135.46
Petty Cash (Vouchers 360-372 incl.)	62.02

Total Disbursements

2739.06

Balance On Hand September 10, 1968

\$21726.75

Funds

General Fund (Bank Statement 9/10/68)	743.83
Savings Fund	20944.94
Petty Cash Fund	37.98

Total Funds

\$21726.75

Assets as of September 10, 1968

General Fund	743.83
Savings Fund	20944.94
Petty Cash Fund	37.98
Accts Receivable (Book Sales)	18.03
Postage on Hand	2.83
Furniture & Equipment (Nominal Value)	1.00

Total Assets

\$21748.61

Liabilities

Accts Payable as of Sept. 10, 1968

100.00

Net Worth

\$21648.61

Respectfully submitted,

H. E. Sunbury
H.E. Sunbury
Asst. Treasurer

PRODUCED
JM - 83

ASBESTOS FIBRE REPORT

Page -1-

October 4, 1966

By: Mr. M.P. Carson, Vice President-Sales
 ASBESTOS CORPORATION LIMITED, Thetford Mines, P.Q., Can.

" You might be interested to have an outline of 1967 production figures for chrysotile asbestos fibre from major producing countries:

U.S.S.R.	1,750,000 tons
Canada	1,500,000 "
Rhodesia	200,000 "
U.S.A.	130,000 "
Italy	100,000 "
South Africa	40,000 "
Cyprus	22,000 "
Swaziland	40,000 "

Canada continues to be the major exporter of chrysotile in spite of Russia's position as the largest producer. Incidentally, it is doubtful that Russia is exporting spinning fibre in any quantity and Russian exports of asbestos cement grades have remained relatively stable over the past seven years at 250,000 to 280,000 tons per annum, with about 150,000 tons shipped to the free world.

Reports indicate that Rhodesian fibre is all being sold, although the market pattern has changed significantly since U.D.I.

Of interest to A.T.I. members is the fact that spinning fibre shipments from Quebec production were running about 17% ahead of 1967 at the end of August. and I believe this will continue through the balance of 1968 and possibly be higher at the close of the year. The U.S. market had not been a significant factor in this increase. Improved economic conditions in Western Europe, Japan, and greater activities in some of the Socialist countries of Europe have contributed to the increase in spinning fibre shipments.

It has been reported that Cassiar production has been reduced to 75,000 tons per annum and Clinton Creek is approaching full production. Nicolet has announced that its mine will be closed at the expiration of its labour contract on February 28, 1969.

(continued on Page -2-)

PRODUCED
 JM - 83

MS 005745

MT-005151

ASBESTOS FIBRE REPORT - continued:

Page -2-

Pacific Asbestos in California is reportedly back to a 6-day week, 3 shifts per day, for an annual production rate of 45,000 tons.

Reports continue to appear concerning new properties in Quebec, namely Albitibi and McAdam, but there is much uncertainty concerning the future of these Prospects.

Western European economic recovery in 1968 has brought increased markets for all grades of fibre from Quebec. Although France was a serious question mark a few months ago, it is believed that the asbestos consuming industries in France will consume almost as much fibre as in 1967. The textile manufacturers seem to be less uncertain at present time than they were a few months ago. Japan's improved economic conditions have meant increased consumption and the much rumoured expectation of a reduced rate of growth in the second half of 1968 has not materialized.

The outlook for the remainder of 1968 looks favourable for all grades of fibre. The textile markets in Europe and Japan appear to be doing well and the expectation that the upward trend will continue is a good possibility. The domestic market does not convey as optimistic signs for 3-Group fibre.

Price increases have been announced by a number of producers with 5% the increase for textile fibres effective January 1, 1969. Cassiar has announced price increases averaging 6%. "

MS 005746

PRODUCED
JM - 83

MT-005152

Miss EDITH E. COX

Guest of Honor

The Asbestos Textile Institute and its members are proud indeed to have the privilege of paying tribute to Miss Edith E. Cox, recently retired Editor and Publisher of the magazine ASBESTOS.

At a dinner in Philadelphia on March 26, 1968, honoring Miss Cox upon the occasion of her retirement, she was notified of her selection as the recipient of the twelfth casting of the Asbestos Story Ring. As is well known, this symbolic Ring is awarded only to those who have made far-reaching and special contributions to the Asbestos Industry over an appreciable number of years, and is considered the greatest honor the Asbestos Mining Industry can bestow on the recipient. The fact that Miss Cox is the first lady to be so honored is a tribute to her long and devoted service to the Industry throughout the world.

Miss Cox was born in Baltimore, Md., and attended Public Schools and the Western High School in that city.

Had planned to be a school teacher, but shortly after moving to Philadelphia in 1917 she entered the Asbestos Industry as Secretary to Mr. C.J. Stover, founder of the magazine ASBESTOS. Five years later, in 1922, she joined Miss Anna S. Rossiter in the partnership known as Secretarial Service, publishers of ASBESTOS. Served as Circulation Manager and later as acting Editor until the death of Miss Rossiter in 1954. Was Editor from 1954 until her retirement in March 1968.

In completing over 50 years of service in the Asbestos Industry Miss Cox can take justifiable pride in the fact that her contributions to the Industry over these many years have been of inestimable value.

Through the medium of the magazine, communications among those engaged in the mining, milling, and processing of asbestos fibre into finished products, have been tremendously improved on a world-wide basis.

Miss Cox is an active member of the Philadelphia Advertising Club, and at present a member of its Board.

As to her future plans, Miss Cox will serve ASBESTOS magazine as a Consultant, and also has ambitions to do considerable traveling.

Asbestos Textile Institute

General Meeting

October 4, 1968

Hotel Hershey, Hershey, Pa.

MS 005747

PRODUCED
JM - 83

MT-005153

Minutes

Page -1-

Air Hygiene & Manufacturing Committee
Asbestos Textile Institute
October 3, 1968, Hotel Hershey, Hershey, Pa.

In attendance:

H.H. Walter, Chairman	-	American Asbestos Textile Corp.
L.E. Moody	-	H.K. Porter Company, Inc.
H.M. Willingham	-	Uniroyal, Inc.
R.C. Hunt	-	" "
L.C. Williams	-	Raybestos-Manhattan, Inc.
C.L. Sheckler	-	Johns-Manville Corp.
W.C. Seeds	-	" " "
R.B. Smith	-	Raybestos-Manhattan, Inc.

Absent: K.W. Nelson - American Smelting & Refining Co.

Guests: R.M. Billings - Johns-Manville Corp.

Asbestos Health Seminar: The Seminar on October 2, 1968 was attended by all members of the committee and the topics presented there-in were subsequently discussed at the committee meeting.

Bausch & Lomb Automatic Dust Counter: Mr. J.P. Wronski gave a report on the tests that were conducted at the Raybestos-Manhattan plant in Manheim, Pa. The attempt to find a correlation between the Impinger and the Bausch & Lomb Dust Counter lead to the conclusion that little correlation between the two instruments exists, particularly in regards to large particle size as well as in areas of high dust concentrations. This phenomenon is due to the low trapping velocity of the Bausch & Lomb Dust Counter, which is therefore not to be considered as a replacement for the Impinger. However, the Bausch & Lomb Dust Counter has proven its feasibility as an excellent monitoring device.

Mr. C.L. Sheckler reported on the Membrane-Filter Method and will present a paper on that method at the next meeting.

Dust Control in the Manufacturing Process: Equipment designed for the reduction of dust in the various operations of textile manufacturing was extensively discussed:

1. A bag opening, emptying and storage system, designed by Barkley & Dexter, Inc.
2. A bag dumper, designed by the Wilkra Co.
3. Bag opening and handling devices, designed by the member companies.
4. Various systems of moving blends to cards.
5. Balloonless spinning and twisting.
6. Wet weaving

MS 005748

MT-005154

One member company reported on a balloonless spinning frame based on the woolen system. Balloonless spinning seems to be desirable inasmuch as the absence of a balloon results in a much lower dust count. Woolen type spinning frames operate usually at a considerable higher spindle speed than those now being used in the asbestos textile industry. As a result broken ends will stir up a great deal of dust. It is therefore imperative that the spindle will stop as soon as an end breaks. The manufacturer of the spinning frame has designed an automatic spindle stop motion and is at present experimenting with such a device, which is similar to the one already being used on balloonless twisting frames.

Minutes - Air Hygiene & Manufacturing Committee - continued:

It is hoped that top management will agree to an open exchange of health safety ideas, including designs, plans, photographs and visitors in areas of mutual interest in regards to the reduction or (if ever possible) total elimination of dust in the manufacturing process. The members of the committee agreed to have technical information concerning health safety practices on hand at the next meeting.

Members of the committee stressed the point that dry weaving of asbestos cloth presents one of the greatest health safety problems in the production of asbestos textiles. To achieve the tentative ACGIH threshold limit values of 2MPPCF of air or the alternate, 12 fibres per cc-5 microns+, engineering asbestos dust abatement in the dry weaving process is, it appears, an impossible task. Wet weaving throughout the industry, however, will achieve tremendous strides towards accomplishing the standards recommended by the United States Public Health Service and the American Conference of Governmental Industrial Hygienists.

It is also essential to produce and manufacture a product that will provide the fabricator and user maximum health safety. Again this can only be accomplished by the process of wet woven cloth.

This material (wet woven cloth) is less dusty and therefore less hazardous.

The Air Hygiene & Manufacturing Committee respectfully urges immediate action by the Board of Governors to coordinate this matter with all ATI standing committees and follow up with specific recommendation for industry-wide action.

Respectfully submitted,

H.H. Walter
Chairman

MS 005749

MT-005155

MINUTES

SALES PROMOTION COMMITTEE
Asbestos Textile Institute
October 3, 1968
Hotel Hershey, Hershey, Pa.

Page -1-

Many members have reported that Japanese cloth is demonstrably inferior to cloth made in U.S.A. With this in mind, we obtained a roll of Japanese cloth and asked the Technical Committee to arrange physical tests on it by each company. At this time we wish to express our appreciation to the Technical Committee under the leadership of John Hawkins for the report on the results of this testing. The test results of each company were sent to John Hawkins who compiled and submitted them to this committee. In general, the physicals were standard. However, they do reveal two areas which we feel could be exploited in the market. Despite the fact that they have a high asbestos content-ASTM Grade "A"--it was reported that they failed to pass a standard flame test. Members felt that this was because they (the Japanese) used acrylic fibers as a carrier. The cloth also had a relatively poor warp tensile. This was particularly revealed and emphasized in the heat aging test whereby the residual tensiles after heat aging were decidedly inferior to standards maintained by all member companies. In addition, one company was able to determine that the Japanese seemed able to use shorter fibers in their cloth than we in this country. This contributes to their lower costs but, in addition, causes lower tensile strengths. Copies of the report were given to member companies in attendance and copies will be sent to those companies who were unable to attend.

It was decided that no collective action would be taken as a result of these tests but each member can use the report as he sees fit. We feel that the cloth does not represent an economic purchase in relation to its projected life and that the data can be helpful in proving this premise.

(continued)

MS 005750

PRODUCED
JM - 83

EX-100 B-97

MT-005156

Minutes - Sales Promotion Committee - continued: Page -2-

As has now become customary, the greatest proportion of our time was consumed in the discussion of the problems of air hygiene. Everyone was impressed with the impact of the symposium held on Wednesday, afternoon (October 2, 1968). No one can be more concerned than the responsible members of our committee. And yet we are frustrated at our inability to come up with concrete proposals for collective

Finally, we discussed once more the purchasing procedures of the Federal Government and the hardships they impose on members. Though we made an attempt this year to try to have them alter the system, we were not successful. As long as the system works--as it does-- to the advantage of the Government, there is no chance here to alter it. Again, no collective action seems advisable and efforts will be discontinued.

Respectfully submitted,

M.Q. Scowcroft
Chairman

MS 005751

PRODUCED
JM - 83

MT-005157

Minutes: TECHNICAL COMMITTEE MEETING

Asbestos Textile Institute

October 3, 1968 at the Hotel Hershey, Hershey, Pa.

In Attendance: G. E. Houghton - Garlock, Inc.
 J. D. McCluer - H. K. Porter Co., Inc.
 E. A. Morris - Uniroyal, Inc.
 D. T. Austin - Uniroyal, Inc.
 William Maaskant - American Asbestos Textile Corp.
 I. Barnett - Johns-Manville
 J. W. Hawkins - Raybestos-Manhattan, Inc.

Minutes:

The Technical Committee, Fiber Testing Committee, and ASTM D-13, A-4 met in a joint session to discuss data recently obtained from the Round Robin test on asbestos textile products. The information was studied statistically and the conclusions were that there is too much variation between laboratories to consider writing an ASTM Magnetic Specification at this time, both the Turner and Mapes gave questionable values.

Recommendations were heard that a second series of tests be started and to have a representative from Bell Asbestos Mines, Mr. Walter Smith, monitor techniques and personally bring the samples into the member companies laboratory. This assignment should be completed prior to the February meeting.

Magnetic standards were discussed and Mr. Lincoln and Mr. Nicodemus will consider using electrical techniques in the preparation and measurements of the proposed standards.

The ATI technical group and ASTM A-4 met after the first session. Mr. Nicodemus acted as chairman and Mr. Harris as secretary. Mr. Nicodemus stated that a volume resistivity test would be of value and that an ASTM method should be included to cover this type of test. Mr. Nicodemus will work on this method.

The Heat Aging test was discussed and an additional Round Robin test will be necessary before working on this procedure. ASTM 1573, as written up, will require modifications.

The data obtained from a Round Robin test on a Japanese cloth was reviewed and the variations between laboratories noted. It is thought that the Japanese cloth in general is inferior to most American made equivalents.

The mercury contamination clause in several military specifications was discussed and the problems encountered by the manufacturer in complying.

Respectfully submitted,

John W. Hawkins
 Chairman

PRODUCED
JM - 83

Minutes
FIBER TESTING COMMITTEE

Page -1-

Asbestos Textile Institute
October 3, 1968, Hotel Hershey, Hershey, Pa.

Present:

Members: G.F.A. Brink, Chairman - Asbestos Corporation Ltd.
D.E. Childers - H.K. Porter Company, Inc.
R.J. Dodds-Hebron - Bell Asbestos Mines Ltd.
B. Lincoln - Turner & Newall Ltd.,
Asbestos Fibre Laboratory
C.E. Stiefken - Lake Asbestos of Quebec Limited
W.C. Streib - Johns-Manville Corporation
J.P. Wronski - Raybestos-Manhattan, Inc.

Visitors: J.G. Berry - Cassiar Asbestos Corporation Limited
S.G. Dixit - Garlock Inc.
J.W. Echerd - H.K. Porter Company, Inc.
Paul O. Nicodemus - General Electric Company

BUSINESS:

1. Magnetic Rating Test

- 1.1 The outcome of the recent Magnetic Rating Round Robin on eight asbestos textile products at different laboratory locations and the conclusions based on the statistical analyses of the results were reviewed at a joint meeting with members of the Technical Committee (7) and ASTM Committee D-13, Sub A-4(2) as follows:
 - 1.1.1 There is no discernible difference in results between the two test methods.
 - 1.1.2 On either test, some participating laboratories got odd results on some samples.
 - 1.1.3 The test variation between companies may be due to differences in the products sent to each firm, or to differences in test procedures used; and/or to variations in the method of loading the test specimen in the cell.
 - 1.1.4 Before the present magnetic rating tests on asbestos textiles are really meaningful and acceptable, consistency in sample handling, machine operating techniques, and the like must be greatly improved.
- 1.2 It was mutually agreed that another joint Technical and Fiber Testing Committee Round Robin should be carried out under the supervision of a suitable trainer. The Bell Asbestos Mines people kindly offered to supply a gentleman for this purpose. The number of samples, etc., to meet statistical requirements will be investigated by Bill Streib and detailed instructions for the Round Robin will be issued by the Technical Committee chairman.
- 1.3 It was recommended that the primary standard for magnetic rating be defined in terms of a basic electrical measurement, i.e., so many millivolts at a definite applied voltage. Mr. Bernard Lincoln and Paul Nicodemus agreed to commence work on this specification.

(continued)

PRODUCED
JM - 83

MS 005753

MT-005159

- 1.4 The preliminary work done since the June meeting to find a suitable source for iron ore as a secondary calibrating standard to replace NBS magnetic sample 29a was reviewed. A graph was circulated indicating that an almost perfect correlation was possible, if an iron ore supplied by the Department of Energy, Mines & Resources, Ottawa, was ground fine enough.
- 1.5 The replacement of the present T.& N. glass specimen holders with a suitable plastic to eliminate breakage was recommended and the packing thereof was discussed. A specimen holder fabricated from Nylon 101 - Type 66 was circulated for examination.
2. Spicular & Grit Content of Spinning Fibers:- The results of preliminary experimental work to develop a suitable test method for measuring the spicular & grit content of spinning fibers were discussed. Fractions recovered by hydrocycloning were circulated for examination. The committee is faced with determining what constitutes an objectionable spicule, etc. It was agreed that exploratory work on this test procedure would continue.
3. Recent activities of the QAMA Technical (Dust study, Product Handling & Colour Test) and ASTM D-30 (Sub III) Committee (Reorganization, T.& N. Wet Classifier & Rotap Test) of interest to ATI were briefly reviewed.
4. The need for a better method for measuring fibre length was expressed by Joe Wronski. The work being done on this score at the QAMA Sherbrooke Laboratory was mentioned. As requested at the June meeting, suggestions from ATI members, especially fiber consumers, as to the test methods they wish to have the Fiber Testing Committee study would be appreciated to guide its activities.

Respectfully submitted,

G.F.A. Brink
Chairman
31st October, 1968

MS 005754

PRODUCED
JM - 83

MT-005160

Minutes

Page -1-

Air Hygiene & Manufacturing Committee
Asbestos Textile Institute
October 3, 1968, Hotel Hershey, Hershey, Pa.

In attendance:

H.H. Walter, Chairman	-	American Asbestos Textile Corp.
L.E. Moody	-	H.K. Porter Company, Inc.
H.M. Willingham	-	Uniroyal, Inc.
R.C. Hunt	-	" "
L.C. Williams	-	Raybestos-Manhattan, Inc.
C.L. Sheckler	-	Johns-Manville Corp.
W.C. Seeds	-	" " "
R.B. Smith	-	Raybestos-Manhattan, Inc.

Absent: K.W. Nelson - American Smelting & Refining Co.

Guests: R.M. Billings - Johns-Manville Corp.

Asbestos Health Seminar: The Seminar on October 2, 1968 was attended by all members of the committee and the topics presented there-in were subsequently discussed at the committee meeting.

Bausch & Lomb Automatic Dust Counter: Mr. J.P. Wronski gave a report on the tests that were conducted at the Raybestos-Manhattan plant in Manheim, Pa. The attempt to find a correlation between the Impinger and the Bausch & Lomb Dust Counter lead to the conclusion that little correlation between the two instruments exists, particularly in regards to large particle size as well as in areas of high dust concentrations. This phenomenon is due to the low trapping velocity of the Bausch & Lomb Dust Counter, which is therefore not to be considered as a replacement for the Impinger. However, the Bausch & Lomb Dust Counter has proven its feasibility as an excellent monitoring device.

Mr. C.L. Sheckler reported on the Membrane-Filter Method and will present a paper on that method at the next meeting.

Dust Control in the Manufacturing Process: Equipment designed for the reduction of dust in the various operations of textile manufacturing was extensively discussed:

1. A bag opening, emptying and storage system, designed by Barkley & Dexter, Inc.
2. A bag dumper, designed by the Wilkra Co.
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4. Various systems of moving blends to cards.
5. Balloonless spinning and twisting.
6. Wet weaving

MT-005161

One member company reported on a balloonless spinning frame based on the woolen system. Balloonless spinning seems to be desirable inasmuch as the absence of a balloon results in a much lower dust count. Woolen type spinning frames operate usually at a considerable higher spindle speed than those now being used in the asbestos textile industry. As a result broken ends will stir up a great deal of dust. It is therefore imperative that the spindle will stop as soon as an end breaks. The manufacturer of the spinning frame has designed an automatic spindle stop motion and is at present experimenting with such a device, which is similar to the one already being used on balloonless spinning frames.

MS 005755

Minutes - Air Hygiene & Manufacturing Committee - continued:

It is hoped that top management will agree to an open exchange of health safety ideas, including designs, plans, photographs and visitors in areas of mutual interest in regards to the reduction or (if ever possible) total elimination of dust in the manufacturing process. The members of the committee agreed to have technical information concerning health safety practices on hand at the next meeting.

Members of the committee stressed the point that dry weaving of asbestos cloth presents one of the greatest health safety problems in the production of asbestos textiles. To achieve the tentative

ACGIH threshold limit values of 2MPPCF of air or the alternate, 12 fibres per cc-5 microns+, engineering asbestos dust abatement in the dry weaving process is, it appears, an impossible task. Wet weaving throughout the industry, however, will achieve tremendous strides towards accomplishing the standards recommended by the United States Public Health Service and the American Conference of Governmental Industrial Hygienists.

It is also essential to produce and manufacture a product that will provide the fabricator and user maximum health safety. Again this can only be accomplished by the process of wet woven cloth.

This material (wet woven cloth) is less dusty and therefore less hazardous.

The Air Hygiene & Manufacturing Committee respectfully urges immediate action by the Board of Governors to coordinate this matter with all ATI standing committees and follow up with specific recommendation for industry-wide action.

Respectfully submitted,

H.H. Walter
Chairman

MINUTES

Page -1-

SALES PROMOTION COMMITTEE
Asbestos Textile Institute
October 3, 1968
Hotel Hershey, Hershey, Pa.

Many members have reported that Japanese cloth is demonstrably inferior to cloth made in U.S.A. With this in mind, we obtained a roll of Japanese cloth and asked the Technical Committee to arrange physical tests on it by each company. At this time we wish to express our appreciation to the Technical Committee under the leadership of John Hawkins for the report on the results of this testing. The test results of each company were sent to John Hawkins who compiled and submitted them to this committee. In general, the physicals were standard. However, they do reveal two areas which we feel could be exploited in the market. Despite the fact that they have a high asbestos content-ASTM Grade "A"--it was reported that they failed to pass a standard flame test. Members felt that this was because they (the Japanese) used acrylic fibers as a carrier. The cloth also had a relatively poor warp tensile. This was particularly revealed and emphasized in the heat aging test whereby the residual tensiles after heat aging were decidedly inferior to standards maintained by all member companies. In addition, one company was able to determine that the Japanese seemed able to use shorter fibers in their cloth than we in this country. This contributes to their lower costs but, in addition, causes lower tensile strengths. Copies of the report were given to member companies in attendance and copies will be sent to those companies who were unable to attend.

It was decided that no collective action would be taken as a result of these tests but each member can use the report as he sees fit. We feel that the cloth does not represent an economic purchase in relation to its projected life and that the data can be helpful in proving this premise.

(continued)

MS 005757

MT-005163

Minutes - Sales Promotion Committee - continued: Page -2-

As has now become customary, the greatest proportion of our time was consumed in the discussion of the problems of air hygiene. Everyone was impressed with the impact of the symposium held on Wednesday, afternoon (October 2, 1968). No one can be more concerned than the responsible members of our committee. And yet we are frustrated at our inability to come up with concrete proposals for collective

Finally, we discussed once more the purchasing procedures of the Federal Government and the hardships they impose on members. Though we made an attempt this year to try to have them alter the system, we were not successful. As long as the system works--as it does-- to the advantage of the Government, there is no chance here to alter it. Again, no collective action seems advisable and efforts will be discontinued.

Respectfully submitted,

M.Q. Scowcroft
Chairman

MS 005758

MT-005164

MINUTES - BOARD OF GOVERNORS' MEETING - October 3, 1968
Hotel Hershey, Hershey, Pennsylvania

ASBESTOS TEXTILE INSTITUTE

In Attendance:

J. L. Rainey - American Asbestos Textile Corporation
E. A. Schuman - Johns-Manville Corporation
J. A. Brown, Jr. - Raybestos-Manhattan, Inc.
L. E. Moody - H. K. Porter Company, Inc.
R. P. Clark - Uniroyal, Inc.
P. J. Flocken - Legal Counsel, Cadwalader, Wickersham & Taft
H. E. Sunbury - Secretary, ATI

Page 1, paragraph 2:

Mr. Sheckler explained what he felt the ATI should attempt to accomplish in the way of industry-wide efforts to reduce the dust hazard to operatives. For example, "wet-weaving" should be adopted industry wide. Stated that the British asbestos textile industry have done this. Feels also, that in the future there will be a law making wet-weaving mandatory.

Mr. Sheckler recommended that ATI set up an "Environmental Control Committee" and offered suggestions as to its membership. He visualized that this committee would release news on Health Problems, handle liaison between companies on mutual problems, and liaison with other groups like Insulation Mfgs. Association. He mentioned that his company was now cooperating with Dr. Selikoff, widely known for his research work on health of asbestos pipecoverers, who has recently been named to head an "Insulation Industry Hygiene Research Program", a combined effort involving an international labor union, industry, medical science, and the Federal Government.

Page 1, paragraph 3:

Mr. J. A. Brown, Jr., moved that ATI set up a committee as recommended by Mr. Sheckler. Motion was seconded by Mr. L. E. Moody. Approval was unanimous.

Page 1, paragraph 4:

President Rainey offered for consideration a suggested resolution: "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible and acting on the advice of the Air Hygiene & Manufacturing Committee, recommends that all member companies of the Institute consider adoption of the "wet-weaving" process with all deliberate speed." Mr. R. P. Clark moved that the Resolution be approved, his motion was seconded by J. A. Brown, Jr., and approval was by unanimous vote.

MINUTES - GENERAL MEETING - October 4, 1968
Hotel Hershey, Hershey, Pennsylvania

ASBESTOS TEXTILE INSTITUTE

Page 3, paragraph 9:

President Rainey, following the report of the Air Hygiene & Mfg. Committee, stated that the Board of Governors had voted unanimous approval of that committee's recommendation in respect to adoption of "wet-weaving" of asbestos fabrics, and had passed the following Resolution: - "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible and acting on the advice of the Air Hygiene & Mfg. Committee, recommends that all member companies of the Institute consider adoption of the 'wet-weaving' process with all deliberate speed."

Page 3, paragraph 10:

President Rainey announced that the Board of Governors had voted unanimously to set up a new committee tentatively titled "Environmental Control Committee", and asked Mr. C. L. Sheckler, Manager of Occupational Environmental Control, Johns-Manville Corporation, to comment on its purpose. Mr. Sheckler mentioned that the new committee, as presently envisaged, would release news on Health Problems, handle liaison between companies on mutual problems, and also handle liaison with other groups like Insulation Mfgs. Assoc., as part of the activities of the new committee, and felt that it would render a very important service to our industry.

MS 005760

MT-005166

GENERAL MEETING - ASBESTOS TEXTILE INSTITUTE

October 4, 1968 - Hotel Hershey, Hershey, Pa.

In attendance:AMERICAN ASBESTOS TEXTILE CORP.

J.W. Weber
 J.L. Rainey
 G.S. Fabel
 H.H. Walter
 J.W. Christenbury
 Wm. Maaskant

GARLOCK INC.

G.E. Houghton
 S.G. Dixit

JOHNS-MANVILLE CORP.

E.H. Wells
 R.H. Billings
 W.P. Raines
 E.A. Schuman
 C.L. Sheckler
 E.M. Fenner
 I. Barnett
 W.C. Seeds
 W.C. Streib
 N.W. Hendry (Can. J.M.Co.)

H.K. PORTER COMPANY, INC.

L.E. Moody
 J.D. McCluer
 D.E. Childers
 G.J. Harris
 J.W. Echerd

RAYBESTOS-MANHATTAN, INC.

J.A. Brown, Jr.
 M.Q. Scowcroft
 J.W. Hawkins
 L.C. Williams
 R.B. Smith
 J.P. Wronski
 J.A. Bettles, Jr. (Retired)
 A.R. Patterson

ASBESTOS CORPORATION LIMITED

H.P. Carson
 P.E. Leclerc
 G.F.A. Brink

BELL ASBESTOS MINES LIMITED

Wm. J.W. Smith
 R.J. Dodds-Hebron

CASSIAR ASBESTOS CORP., LTD.

J.G. Berry

LAKE ASBESTOS OF QUEBEC LTD.

E.A. Farrell
 C.E. Stiefken

TURNER & NEWALL LTD.

B. Lincoln

CADWALADER, WICKERSHAM & TAFT

P. Jay Flocken (Legal Counsel)

U.S. PUBLIC HEALTH SERVICE

Dr. L.J. Cralley

UNIROYAL, INC.

R.P. Clark
 R.C. Hunt
 D.T. Austin, Jr.
 H.M. Willingham
 E.A. Morris
 Dr. J.G. Wells

ASBESTOS TEXTILE INSTITUTE

H.E. Sunbury (Secretary)

GUESTS

Miss Edith E. Cox (Guest-of-Honor) Asbestos Magazine
 Mr. A.G. Matamoros (Guest Speaker)
 Mr. D.R. Holmes, Asten-Hill Mfg. Co.
 Mr. C.J. Stover, Asbestos Magazine

MS 005761

In addition, approximately twenty-four wives of members were present at Social Hours and at the luncheon on Friday noon, October 4th.

(continued)

MT-005167

Minutes - General Meeting - continued:

Page -2-

1. President Rainey called the meeting to order at 9:30 A.M. and welcomed members and guests to our twenty-fourth Annual Meeting.

Referring to the well attended "Asbestos Health Seminar" held on the afternoon of October 2nd, 1968, Mr. Rainey expressed appreciation on behalf of the Institute to its Chairman, Mr. C.L. Sheckler of Johns-Manville Corporation, for the fine program. The Agenda for the Seminar is attached to these minutes.

2. The minutes of the last meeting were presented for reading. It was moved by J.A. Brown, Jr., that reading be omitted. His motion was seconded by J.W. Christenbury, and so voted.

3. The Financial Report was presented by E.A. Schuman. On motion made by R.P. Clark, seconded by J.A. Brown, Jr., it was voted to accept the report, and same is attached to these minutes.

Mr. Rainey reported that the Annual Audit of the Institute's books had been made by Mr. James D. Smith, accountant employed by our member company, GARLOCK INC., and that he had a letter from Mr. Smith dated September 23, 1968 stating that the report of September 10, 1968 distributed to members at this meeting, did represent the financial position of the Institute on that date.

MS 005762

MT-005168

MT-005169

5. The Fibre Producer's Report was given by Mr. H.P. Carson, Vice President - Sales, ASBESTOS CORPORATION LIMITED, Thetford Mines, P.Q. and his interesting and informative report is attached.

6. Guest-of-Honor, Miss Edith E. Cox, retired editor of ASBESTOS Magazine, was introduced by Mr. J.A. Bettles, Jr., a former president of the Institute. Mr. Bettles paid fitting tribute to Miss Cox for her service to the asbestos industry for a period of more than fifty years. President Rainey presented Miss Cox with a memento of the occasion, and there was a standing ovation in her honor. Miss Cox responded most graciously, and said she appreciated very much the opportunity to attend the meeting.

7. President Rainey introduced Dr. A.G. Matamoros, Chief Economist of Armstrong Cork Company, A nationally recognized economist, Dr. Matamoros spoke on the subject: "Business Prospects and Problems in the Year Ahead". His talk was extremely interesting, and was followed by many questions from his audience. President Rainey thanked Dr. Matamoros on behalf of the members.

8. The committee reports were given by the respective chairmen:

Air Hygiene & Mfg. Committee - H.H. Walter, Chairman
 Sales Promotion Committee - M.Q. Scowcroft, Chairman
 Technical Committee - J.W. Hawkins, Chairman
 Fiber Testing Committee - G.F.A. Brink, Chairman

The full text of their reports is attached to these minutes.

9. President Rainey, following the report of the Air Hygiene & Mfg. Committee, stated that the Board of Governors had voted unanimous approval of that committee's recommendation in respect to adoption of 'wet-weaving' of asbestos fabrics, and had passed the following Resolution: - "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible and acting on the advice of the Air Hygiene & Mfg. Committee, recommends that all member companies of the Institute consider adoption of the 'wet-weaving' process with all deliberate speed."

10. President Rainey announced that the Board of Governors had voted unanimously to set up a new committee tentatively titled "Environmental Control Committee", and asked Mr. C.L. Sheckler, Manager of Occupational Environmental Control, Johns-Manville, Corp., to comment on its purpose. Mr. Sheckler mentioned that the new committee, as presently envisaged, would release news on Health Problems, handle liaison between companies on mutual problems, and also handle liaison with other groups like Insulation Mfgs. Assoc.,

(continued)

MS 005763

Minutes - General Meeting - continued:

Page -4-

as part of the activities of the new committee, and felt that it would render a very important service to our industry.

11. President Rainey announced that representatives of the member companies now serving on the Board of Governors would continue without change, and also, that the members of the Board had elected new officers to serve for the coming year, namely:

President - E.A. Schuman, Johns-Manville Corp.

Vice President - R.P. Clark, Uniroyal, Inc.

Treasurer - M.Q. Scowcroft, Raybestos-Manhattan, Inc.

12. Mr. Rainey announced that the next meeting of the A.T.I. would be held at the GRAND HOTEL, Point Clear, Ala. (near Mobile) and the dates are February 6-7, 1969. This is a very famous hostelry, and those who have attended meetings of other associations there are sure that A.T.I. members and their wives will greatly enjoy their visit to the GRAND HOTEL.!

13. The meeting recessed for luncheon, during which "Jack" Rainey, retiring president was presented with an Atmos clock in appreciation of his outstanding leadership of the Institute during the past two years. Mr. Rainey thanked the members for the gift and for their cooperation during his tenure as president, and received a fine hand and standing ovation following his remarks.

14. After the luncheon the meeting adjourned.

Respectfully submitted,

H.E. Sunbury
H.E. Sunbury
Secretary

MS 005764

MT-005170

ASBESTOS FIBRE REPORT - continued:

Page -2-

Pacific Asbestos in California is reportedly back to a 6-day week, 3 shifts per day, for an annual production rate of 45,000 tons.

Reports continue to appear concerning new properties in Quebec, namely Albitibi and McAdam, but there is much uncertainty concerning the future of these Prospects.

Western European economic recovery in 1968 has brought increased markets for all grades of fibre from Quebec. Although France was a serious question mark a few months ago, it is believed that the asbestos consuming industries in France will consume almost as much fibre as in 1967. The textile manufacturers seem to be less uncertain at present time than they were a few months ago. Japan's improved economic conditions have meant increased consumption and the much rumoured expectation of a reduced rate of growth in the second half of 1968 has not materialized.

The outlook for the remainder of 1968 looks favourable for all grades of fibre. The textile markets in Europe and Japan appear to be doing well and the expectation that the upward trend will continue is a good possibility. The domestic market does not convey as optimistic signs for 3-Group fibre.

Price increases have been announced by a number of producers with 5% the increase for textile fibres effective January 1, 1969. Cassiar has announced price increases averaging 6%. "

MS 005765

MT-005171

Miss EDITH E. COX

Guest of Honor

The Asbestos Textile Institute and its members are proud indeed to have the privilege of paying tribute to Miss Edith E. Cox, recently retired Editor and Publisher of the magazine ASBESTOS.

At a dinner in Philadelphia on March 26, 1968, honoring Miss Cox upon the occasion of her retirement, she was notified of her selection as the recipient of the twelfth casting of the Asbestos Story Ring. As is well known, this symbolic Ring is awarded only to those who have made far-reaching and special contributions to the Asbestos Industry over an appreciable number of years, and is considered the greatest honor the Asbestos Mining Industry can bestow on the recipient. The fact that Miss Cox is the first lady to be so honored is a tribute to her long and devoted service to the Industry throughout the world.

Miss Cox was born in Baltimore, Md., and attended Public Schools and the Western High School in that city.

Had planned to be a school teacher, but shortly after moving to Philadelphia in 1917 she entered the Asbestos Industry as Secretary to Mr. C.J. Stover, founder of the magazine ASBESTOS. Five years later, in 1922, she joined Miss Anna S. Rossiter in the partnership known as Secretarial Service, publishers of ASBESTOS. Served as Circulation Manager and later as acting Editor until the death of Miss Rossiter in 1954. Was Editor from 1954 until her retirement in March 1968.

In completing over 50 years of service in the Asbestos Industry Miss Cox can take justifiable pride in the fact that her contributions to the Industry over these many years have been of inestimable value.

Through the medium of the magazine, communications among those engaged in the mining, milling, and processing of asbestos fibre into finished products, have been tremendously improved on a world-wide basis.

Miss Cox is an active member of the Philadelphia Advertising Club, and at present a member of its Board.

As to her future plans, Miss Cox will serve ASBESTOS magazine as a Consultant, and also has ambitions to do considerable traveling.

Asbestos Textile Institute

General Meeting

MS 005766

October 4, 1968

Hotel Hershey, Hershey, Pa.

MT-005172

Minutes

BOARD OF GOVERNOR'S MEETING

October 3, 1968 - 9:00 P.M., Hotel Hershey, Hershey, Pa.

In attendance:

J.L. Rainey - American Asbestos Textile Corporation
 E.A. Schuman - Johns-Manville Corporation
 J.A. Brown, Jr. - Raybestos-Manhattan, Inc.
 L.E. Moody - H.K. Porter Company, Inc.
 R.P. Clark - Uniroyal, Inc.
 P. Jay Flocken - Legal Counsel, Cadwalader, Wickersham & Taft
 E.L. Sunbury - Secretary, A.T.I.

Absent: J.L. Mitchell - Tallman McCluskey Fabrics Co.
 C.P. Wiess - GARLOCK Inc.

MS 005767

Guests: C.L. Sheckler - Johns-Manville Corp.

MT-005173

***** Minutes *****

1. President Rainey called the meeting to order at approximately 10:00 pm and deferred the regular order of business to permit Mr. C.L. Sheckler to address the Board.

2. Mr. Sheckler explained what he felt the A.T.I. should attempt to accomplish in the way of industry-wide efforts to reduce the dust hazard to operatives. For example, "wet weaving" should be adopted industry wide. Stated that the British asbestos textile industry have done this. Feels also, that in due course a law will be passed making wet-weaving mandatory.

Mr. Sheckler recommended that A.T.I. set up an "Environmental Control Committee" and offered suggestions as to its membership. This committee would release news on Health Problems, handle liaison between companies on mutual problems, and liaison with other groups like Insulation Mfrs. Assoc. He mentioned that his company was now cooperating with Dr. Selikoff, widely known for his research work on health of asbestos pipe coverers, who has recently been named to head an "Insulation Industry Hygiene Research Program", a combined effort involving an international labor union, industry, medical science and the federal government.

3. J.A. Brown, Jr., moved that we (ATI) set up a committee as recommended by Mr. Sheckler. Motion was seconded by L.E. Moody. Approval was unanimous.

4. President Rainey offered for consideration ~~the~~ a suggested Resolution, as follows:

"The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever feasible, on advice of its Air Hygiene & Manufacturing Committee recommends that members of the Institute adopt "wet weaving" with all deliberate speed." (Note: This wording is to be edited by Mr. Rainey)

R.P. Clark moved that the Resolution be approved, the motion was seconded by J.A. Brown, Jr., and approval was by unanimous vote.

5. The minutes of the last meeting were presented for reading. On motion made by R.P. Clark, seconded by E.A. Schuman, it was voted to omit the reading of the minutes.

6. The Financial Report as of September 10th, 1968, was presented by the Secretary. R.P. Clark moved that report be accepted, and this motion was seconded by E.A. Schuman. The vote was unanimous for approval. The Report is attached to these minutes.

Mr. Rainey reported that the Annual Audit of the Institute's books had been made by Mr. James L. Smith, accountant employed by our member company, GARLOCK INC., and that he had a letter from Mr. Smith dated September 23, 1968, stating that the report of September 10th, 1968, as presented by the Secretary represented the financial position of the Institute on that date. A copy of the auditor's letter is attached to these minutes.

7. Mr. J.A. Brown, Jr., Chairman of the Nominating Committee, reported that he had canvassed the member companies to determine who would represent them on the Board of Governors for the coming year, and that the following have been designated by their respective companies:

John A. Brown, Jr. - Raybestos-Manhattan, Inc.
 R.P. Clark - Uniroyal, Inc.
 J.L. Mitchell - Talcum-McCluskey Fabrics Company
 L.E. Moody - H.K. Porter Company, Inc.
 J.L. Rainey - American Asbestos Textile Corp.
 E.A. Schuman - Johns-Manville Corporation
 G.P. Wiess - Garlock Inc.

MT-005174

8. Election of Officers: - Mr. Brown, Chairman of Nominating Committee, submitted a slate of officers for the coming year:

E.A. Schuman (for President)
 R.P. Clark (for Vice President)
 M.L. Scowcroft (Raybestos-Manhattan, Inc., for Treasurer)

There being no other nominations for these offices it was moved by J.A. Brown, Jr., and seconded by L.E. Moody, that the above slate of officers be duly elected. Agreement was unanimous and it was so voted.

9. It was agreed that the respective chairmen of our four working committees should be continued for another year, inasmuch as each has completed only one year of the normal two-year term.

10. The Secretary presented a suggested ~~next~~ Institute budget for the year 1969. President Rainey deferred discussion of same until later in the meeting.

11. President Rainey read a letter from Syracuse University stating they had a three year grant from the Dept. of HEW to study the origin, quantities, and characteristics of wastes which result from production operations in our industry, and requesting ~~xxx~~ the cooperation of his company in supplying the needed information for their research. Several of the members stated they also had received the same letter from Syracuse.

Minutes - Board of Governor's Meeting - continued: Page -3-

12. President Rainey ~~xxx~~ reported the death of C.H. Carlough, first president of the Asbestos Textile Institute, which occurred on June 17, 1968, and read a letter of condolence that he had written and sent to Mrs. Carlough on behalf of the Institute.

13. Speaker for the February meeting. Mr. Rainey stated that his company will make every effort to supply a suitable speaker.

MS 005769

MT-005175

There being no further business to come before the meeting it
16. was duly adjourned.

Respectfully submitted,

H.E. Sunbury, Secretary

Addendum: The suggested budget for 1969, including the increase in Legal Retainer fee as voted above, was circulated by mail to members of the Board of Governors. The approved budget, resulting from that mailing, is attached to these minutes.

ASBESTOS FIBRE REPORT

Page -1-

October 4, 1966

By: Mr. M.P. Carson, Vice President-Sales
 ASBESTOS CORPORATION LIMITED, Thetford Mines, P.Q., Can.

" You might be interested to have an outline of 1967 production figures for chrysotile asbestos fibre from major producing countries:

U.S.S.R.	1,750,000 tons
Canada	1,500,000 "
Rhodesia	200,000 "
U.S.A.	130,000 "
Italy	100,000 "
South Africa	40,000 "
Cyprus	22,000 "
Swaziland	40,000 "

Canada continues to be the major exporter of chrysotile in spite of Russia's position as the largest producer. Incidentally, it is doubtful that Russia is exporting spinning fibre in any quantity and Russian exports of asbestos cement grades have remained relatively stable over the past seven years at 250,000 to 280,000 tons per annum, with about 150,000 tons shipped to the free world.

Reports indicate that Rhodesian fibre is all being sold, although the market pattern has changed significantly since U.D.I.

Of interest to A.T.I. members is the fact that spinning fibre shipments from Quebec production were running about 17% ahead of 1967 at the end of August. and I believe this will continue through the balance of 1968 and possibly be higher at the close of the year. The U.S. market had not been a significant factor in this increase. Improved economic conditions in Western Europe, Japan, and greater activities in some of the Socialist countries of Europe have contributed to the increase in spinning fibre shipments.

It has been reported that Cassiar production has been reduced to 75,000 tons per annum and Clinton Creek is approaching full production. Nicolet has announced that its mine will be closed at the expiration of its labour contract on February 28, 1969.

(continued on Page -2-)

MS 005770

MT-005176

Minutes

GENERAL MEETING - Asbestos Textile Institute

October 4, 1968 - Hotel Hershey, Hershey, Pa.

In attendance:

AMERICAN ASBESTOS TEXTILE CORP.

J.W. Weber
 J.L. Rainey
 G.S. Pabel
 H.H. Walter
 J.W. Christenbury
 Wm. Maaskant

GARLOCK INC.

G.E. Houghton
 S. Dixit

JOHNS-MANVILLE CORP.

E.H. Wells
 R.M. Billings
 W.P. Raines
 E.A. Schuman
 C.L. Sheckler
 E.M. Fenner
 I. Barnett
 W.C. Seeds
 W.C. Streib
 H.W. Hendry (Can. J.M. Co.)

H.K. PORTER COMPANY, INC.

L.E. Moody
 J.D. McCluer
 D.E. Childers
 G.J. Harris
 J.W. Echerd

RAYBESTOS- MANHATTAN, INC.

J.A. Brown, Jr.
 M.Q. Scowcroft
 J.W. Hawkins
 L.C. Williams
 R.B. Smith
 J.P. Wronski
 J.A. Bettes, Jr. (Retired)
 A.R. Patterson

ASBESTOS CORPORATION LIMITED

M.P. Carson
 P.E. Leclerc
 G.F.A. Brink

BELL ASBESTOS MINES LIMITED

Wm. J.W. Smith
 R. Dodds-Hebron

CASSIAR ASBESTOS CORP. LTD.

J.G. Berry

LAKE ASBESTOS OF QUEBEC LTD.

E.A. Farrell
 C.E. Stiefken

TURNER & NEWALL LTD.

B. Lincoln

CAZDALADER, WICKERSHAM & TAFT

F. Jay Flocken (Legal Counsel)

U.S. Public Health Service

Dr. L.J. Cralley

UNIROYAL, INC.

R.P. Clark
 R.C. Hunt
 D.T. Austin, Jr.
 H.M. Willingham
 E.A. Morris
 Dr. J.G. Wells

ASBESTOS TEXTILE INSTITUTE

H.E. Sunbury (Secretary)

GUESTS of HONOR

Miss Edith E. Cox (Asbestos Magazine)

Other GUESTS

Mr. A.G. Matamoros (Guest Speaker)
 Mr. D.R. Holmes, Asten-Hill Mfg. Co.
 Mr. C.J. Stover, Asbestos Magazine

In addition, approximately twenty-four wives of members were present at Social Hours and at the luncheon on Friday noon, October 4th.

1. President Rainey called the meeting to order at 9:30 A.M. and asked each person to stand and identify himself and his company. He expressed his gratification that this, our twenty-fourth annual meeting, had such a large and representative attendance.

2. The minutes of the last meeting were presented for reading. It was moved by J.A. Brown, Jr., that reading be omitted. This motion was seconded by J.W. Christenbury, and so voted. ~~XXXXXXXXXX~~

3. The Financial Report was presented by E.A. Schuman. R.P. Clark moved that report be accepted, and J.A. Brown, Jr., seconded the motion. It was so voted. The report is attached to these minutes.

Mr. Rainey reported that the Annual Audit of the Institute's books had been made by Mr. James D. Smith, accountant employed by our member company, CARLOCK INC., and that he had a letter from Mr. Smith dated September 23, 1968, stating that the report of September 10, 1968 distributed to members at this meeting, did represent the financial position of the Institute on that date.

5. The Fibre Producer's Report was given by Mr. M.P. Carson, Vice President-Sales, ASBESTOS CORPORATION LIMITED, Thetford Mines, P.Q., Can. Mr. Carson's interesting and informative report follows:

(Insert copy supplied by Mr. Carson)

6. Guest-of-Honor, Miss Edith E. Cox, retired editor of ASBESTOS Magazine, was introduced by Mr. J.A. Bettes, Jr., a former president of the Institute. Mr. Bettes paid fitting tribute to Miss Cox for her service to the asbestos industry for a period of over fifty years. Following his remarks, President Rainey presented Miss Cox with a memento of the ~~xxxx~~ occasion, and there was a standing ovation in her honor. Miss Cox responded most graciously, and said that she appreciated very much the invitation to attend the meeting.

7. President Rainey introduced Dr. A.G. Matamoros, Chief Economist of Armstrong Cork Company. A nationally recognized economist, Dr. Matamoros spoke on the subject; "Business Prospects and Problems in the Year Ahead". His talk was extremely interesting, and was followed by many questions from his audience. President Rainey thanked Dr. Matamoros on behalf of the Institute.

8.

3. The committee reports were given by the respective chairmen:

Air Hygiene & Mfg. Committee - H.H. ~~Wain~~ Walter, Chairman

Sales Promotion Committee - M.Q. Scowcroft, Chairman

Technical Committee - J.W. Hawkins, Chairman

Fiber Testing Committee - G.F.A. Brink, Chairman

MS 005772

MT-005178

The full text of their reports is attached to these minutes.

9. President Rainey, following the report of the Air Hygiene & Mfg. committee, stated that the Board of Governors had voted unanimous approval of that committee's recommendation in respect to adoption of "wet-weaving" of asbestos fabrics, and had passed the following resolution: "The Board of Governors of the Asbestos Textile Institute, recognizing that every effort to control environmental dust problems should be encouraged wherever ~~practicable~~ feasible, ~~on advice~~ of its Air Hygiene & Manufacturing Committee, recommends that Members of the Institute ~~adopt~~ "wet weaving" with all deliberate speed".

10. President Rainey announced that the Board of Governors had voted unanimously to set up an "Environmental Control Committee", and asked Mr. C.E. Sheckler, Manager of Occupational Environmental Control, Johns-Manville Corporation, to comment on its functions. Mr. Sheckler mentioned that the new committee would release news on Health Problems, handle liaison between ~~companies~~ on mutual problems, and liaison with other groups like Insulation Mfrs. Association, as an example of the important responsibilities to be assigned the new committee.

11. President Rainey announced that representatives of the member companies now serving on the Board of Governors would continue without change, and that the Board had elected the new officers to serve for the coming year, namely:

President - E.A. Schuman, Johns-Manville Corporation
Vice President - R.P. Clark, Uniroyal, Inc.
Treasurer - M.Q. Snowcroft, Raybestos-Manhattan, Inc.

12. Mr. Rainey announced that the next meeting of the A.T.I. would be held at the ~~Grand Hotel~~, Point Clear, Ala. (near Mobile) and the dates are February 6-7, 1969. This is a very famous hostelry, and those who have attended meetings of other associations there are sure that A.T.I. members and their wives will greatly enjoy their visit to the ~~Grand Hotel~~!

13. The meeting recessed for luncheon, during which Mr. "Jack" Rainey, retiring president, was presented with an Atmos Clock in appreciation of his outstanding leadership of the Institute during the past two years. Mr. Rainey thanked the members for the gift and for their cooperation during his term as president, and received a fine hand and standing ovation at the conclusion of his remarks.

14. After the luncheon the meeting adjourned.

Respectfully submitted,

H.E. Sunbury
Secretary

MS 005773

MT-005179