

FILE NAME: Flintkote (FLK)

DATE: 1969 - 1977

DOC#: FLK081

DOCUMENT DESCRIPTION: Multiple Documents

James M. Smith

— *pendula* : *dist. filum.*

1. 1. 1.

DRAFT....

January 27, 1969

Mr. Ralph McCreary
C-E Refractories
Port Kennedy, Pa. 19463

Dear Mr. McCreary:

This will refer to our telephone conversation relative to your question concerning the possibility of asbestosis being induced due to the use of a fibrated asphalt emulsion such as ~~your~~ *gull* Weatherkote.

It has been asserted, and backed by some medical experience, that asbestosis, a lung condition, may be associated with inhaling substantial concentrations of airborne asbestos dust over long periods of time, usually a good many years. Since the asbestos fiber in Weatherkote is embodied in a wet asphalt system, the amount of free asbestos fiber dust is negligible, and cannot be considered a lung health hazard to the handler, applicator or user of Weatherkote based on any medical evidence available up to the present time.

Yours very truly,

/cc: C.T. Derry
H.P. Heubner - White Plains
J.A. Main

~~Suggested letter by W.L. McCreary~~

11
2-15
WIL

February 3, 1969

American Mutual Liability Insurance Company
79 Madison Avenue
New York, N.Y. 10016

Attention: Mr. Edward C. Robedee

Subject: Asbestos Health Hazard - "Weathermate"

Gentlemen:

Attached is a suggested letter written by W.T. Mortenson, our Industrial Sales Manager to Mr. Ralph McCreary of C-2 Refractories, Port Kennedy, Pennsylvania, one of our customers.

We would like to send this letter to C-2 Refractories to satisfy their recent questions regarding any health hazards connected with the subject product.

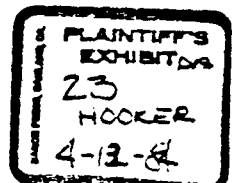
We ask that you carefully review this letter with respect to any potential future liability, making any corrections you feel are advisable.

Yours very truly,

Walter H. Ebert
Safety Manager

WHE:knh

cc: Mr. W.C. Bird - American Mutual, White Plains
Mr. Leon Borovitz - Wakefield, Mass.



1000. Colored Hand suggested 2nd
 paragraph letter should be p. Palmer
 checked with me hearing

one
 It has been ~~with~~ asserted, and based on medical experience,
 that asbestosis, a lung condition, may be associated with ^{inhalation}
 substantial concentrations of airborne asbestos dust over
 long periods of time, usually a good many years.
 Since the asbestos fiber in Weatherite is embedded in
 a well ~~of~~ ^{with} asphalt system, ~~the~~ the
 amount of free asbestos fiber ^{that} is negligible, ~~and~~ and
 cannot be considered a health hazard to the
 worker, applicator, or user of Weatherite, based on
 any ^{medical} evidence available up to the present time.

*Mc
Hick Ground*

February 17, 1969

Mr. Ralph McCrory
C-2 Refractories
Port Deposit, Pa. 19463

*Re: Asbestosis
"Weatherkote"*

Dear Mr. McCrory:

This will refer to your recent telephone conversations with our Mr. W.M. Mortenson, Industrial Sales Manager, relative to your question concerning the possibility of asbestosis being induced due to the use of a fibrous asphalt emulsion, such as our "Weatherkote".

It has been asserted, and backed by some medical experience, that asbestosis, a lung condition, may be associated with inhaling substantial concentrations of airborne asbestos dust over long periods of time, usually a good many years. Since the asbestos fiber in "Weatherkote" is embodied in a wet asphalt system, the amount of free asbestos fiber dust is negligible, and cannot be considered a lung health hazard to the handler, applicator or user of "Weatherkote" based on any medical evidence available up to the present time.

Yours very truly,

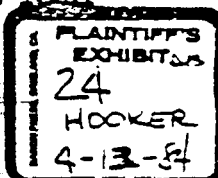
Walter E. Knorr
Safety Manager

WVK:loh

cc: Mr. James A. Main - East Rutherford
Mr. W.M. Mortenson - East Rutherford
Mr. C.W. Derry - East Rutherford
Mr. R.P. Becker - White Plains

Note on all carbon copies:

This letter has been approved by the American Mutual Liability Insurance Company's Claims and Engineering Departments and found to be satisfactory. The letter has been further reviewed by Noel Crowley of our corporate legal department and meets with his approval, as well.



THE FLINTKOTE COMPANY
INTER-OFFICE CORRESPONDENCE

TO: John Parker - Rutherford SUBJECT: Asbestos Dust Survey
East Rutherford

FROM: Walter N. Knorr DATE: June 29, 1971
White Plains

John:

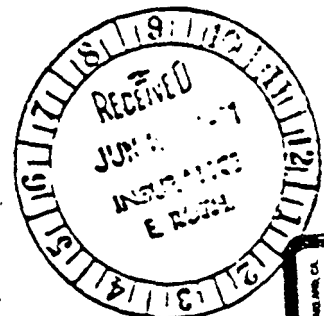
Attached is a copy of Mr. Leon Horowitz's report as a result of his survey on asbestos dust conditions at the Rutherford plant. Please note that Mr. Horowitz makes three recommendations as a result of this survey, however, only two deal directly with asbestos dust. Based on the exposure being intermittent, use of U. S. Bureau of Mines respirators approved for use with asbestos and silica dusts, should be worn by those operators dumping these materials into mixers. It should be noted, however, that if the operation becomes something more than intermittent exposure, proper exhaust ventilation should be installed to adequately maintain dust concentrations below the threshold limit values.

Please review these recommendations with plant management and ascertain that proper protective equipment is being used whenever the subject operations are being performed.

WNK:ah

Enclosure:

cc: W. H. Mortonson - Rutherford
J. Guepet - Rutherford
H. P. Heubner - White Plains



THE FLINTKOTE COMPANY
INTER-OFFICE CORRESPONDENCE

Krebs

TO: Mr. M. L. Johnson - Rutherford
Mr. J. C. Harkness- Rutherford
Mr. E. Taylor - Ravenna
Mr. W. Harvey - 5500 Alameda Street

SUBJECT: Asbestos Standard

FROM: Walter N. Knorr
White Plains

DATE: June 7, 1972

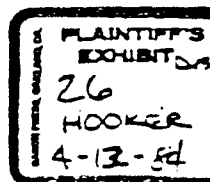
The emergency asbestos standard promulgated on December 27, 1971 is being replaced by a new OSHA Standard on asbestos which was announced by the Labor Department yesterday, June 6th and which will limit concentrations of asbestos to two fibers per cubic centimeter of air by July 1, 1976. The new regulations require monitoring and recordkeeping to go into effect on July 7, 1972 at a limit of five fibers until July 1, 1976 when the limit of two fibers will be used.

Attached is a copy of the announcement as it appeared in the Journal of Commerce this morning outlining the provisions of the standard. As additional information is received in this office, it will be distributed to you immediately so that all may be apprised of the effect of the standard.

WNK:rp
Attachment

Walter N. Knorr

cc: Mr. J. S. Barrois - New Orleans
Mr. E. A. Opila - Chicago Heights (McKinley Ave.)
Mr. R. J. Scymanski - Chicago Heights (Wentworth Ave.)
Mr. W. Carl - Ravenna
Mr. H. A. Dalik - Orangeburg
Mr. N. Davis - Chillicothe
Mr. J. Parker - White Plains
Mr. A. Hooker - White Plains
Mr. J. Fogarty - White Plains
Mr. J. Szal - White Plains



Union-Industry Compromise

New OSHA Standard On Asbestos Is Set

By LEAH YOUNG

Journal of Commerce Staff

WASHINGTON, June 6 — The Labor Department today announced a new national standard of asbestos that would limit concentrations to two fibers per cubic centimeter of air by July 1, 1976.

The new standard is a compromise between union demands of zero fibers per cubic centimeter to safeguard laborers' health and industry preference for the current temporary standard of five fibers per cubic centimeter of air.

The asbestos standard has been one of the toughest problems before the Occupational Safety and Health Administration (OSHA). Recent medical findings have linked long term exposure to asbestos with large increases in lung diseases and cancer.

The new OSHA standard announced today by Assistant Labor Secretary George Guenther also establishes a ceiling concentration of 10 fibers not to be exceeded at any time.

The new regulations require compliance monitoring and record keeping sections of the rule to go into effect July 7 of this year even though the reduction from five fibers to 2 will not take place until July 1, 1976.

Compliance regulations require "feasible technological controls and appropriate work practices." The regulation makes it clear that rotation of employees to reduce their exposure is allowed only in "exceptional circumstances."

The new OSHA regulation also will not allow employers to rely on personal protective equipment, such as respirators, largely because they are uncomfortable.

The standard includes requirements that:

1. Hand tools that may produce asbestos fibers in excess of the limits be provided with local exhaust ventilation systems.

2. Asbestos must be handled and worked with in a wet state unless this would diminish the usefulness of the product.

3. No asbestos cement, mortar, coating, grout, plaster, or other materials can be removed from shipping bags

without being either wetted, enclosed or ventilated.

4. Where respirators are permitted they must be selected from among the types approved by the Bureau of Mines or the National Institute for Occupational Safety and Health (NIOSH).

5. The employer must provide and require the use of special protective clothing, change rooms, and two separate lockers for the employee's street and work clothes.

6. Waste must be collected in sealed intermedial bags.

Employers must establish monitoring systems to make certain that employee exposure to asbestos fibers is below the prescribed limits.

Monitoring must be at intervals no longer than six months and employee representatives must have the right to observe the monitoring and to have access to the records.

Warning signs and caution labels must be affixed to all raw materials containing asbestos unless they have been modified by a bonding agent that would prevent release of concentrations above the legal limits.

The employer is instructed under the standard to provide medical examinations for employees. Records of these examinations must be retained for at least 20 years, and the contents of the records are to be made available to OSHA or NIOSH consultants, to employees or former employees, or their physicians.

12 FIBERS

5 FIBERS

2 FIBERS

In last month's OUTLOOK (page 6), we reported on NICA's efforts to be on the Asbestos Standards Committee, and our reported failure to do so. We told you of the many meetings attended by representatives of NICA in Washington, New York and Pittsburgh, and plans to protest the criteria at the public hearing on March 14-17 at the Labor Department with the Honorable Arthur Goldberg as the hearing examiner. We also sent all NICA Members a copy of the Criteria for recommended standards . . . "Occupational Exposure to Asbestos".

Spence Royer, at the public hearing, made the following excellent presentation on the financial cost to an average insulation contractor if the criteria is adopted as written.

Mr. Goldberg and members of the Advisory Committee on asbestos standards, my name is J. Spencer Royer and I am here to represent the National Insulation Contractors Association and approximately 1,000 small insulation contractors and fabricators around the country. I am President of the Young Sales Corporation with headquarters in St. Louis, Missouri. My company engages in the fabrication and application of thermal insulation and other materials which contain asbestos fiber. I'm no neophyte in this business, having been in it for 27 years.

Let me present a picture to you gentlemen which I'm sure you haven't considered.

Insulation contracting in the United States is a \$600,000,000.00 per year business; however, the average contractor has annual sales of only \$600,000. Net profit after taxes averages 2% of the sale or \$12,000.00 per contractor per year.

Using figures developed by a number of other contractors from various parts of the country and myself, we computed the additional cost resulting from the proposed asbestos dust standards will amount to \$134,000.00 per contractor per year, or more than 10 times his net earnings.

It is obvious that unless this additional cost can be passed on to the customer which, in many cases is a Federally funded project, it will be impossible for the small insulation contractor to survive.

You must be made aware also that every contractor has a backlog of uncompleted work as a fixed price, with specific material and specifications. It will be impossible, in most instances, to pass this added

cost on to the customer since these contracts were consummated prior to publication of the proposed regulation.

You may be wondering, gentlemen, how we arrived at the \$134,000.00 additional cost per year to the average contractor. First, we based the analysis on 25% of our total man hours being employed using materials containing asbestos. We then broke down the additional costs by categories as specified in the proposed regulation. These categories included:

1. Monitoring
2. Physical examinations
3. Respirators
4. Worker placement
5. Dust collectors
6. Vacuum cleaning
7. Warning signs
8. Protective clothing

The time which will be lost on the job, both in executing the tests and in trying to carry out the stipulations of the regulation as proposed is staggering. We estimate that our labor costs will be increased 168%.

The main issue so far as the contractor is concerned is how will he be able to pay these additional costs and still remain in business. In my opinion, many of them won't be able to absorb it.

We urge you to reconsider the proposed Asbestos Dust Standard as published in the Federal Register on Wednesday, December 7, 1971; the NIOSH Criteria Package; and the Asbestos Advisory Committee recommendations.

We, as contractors, are just as interested as you in seeing that our employees work under safe conditions but we request that further investigation and evaluation be made to initiate more practical standards that will provide protection to our people but that will not put us out of business.

Cliff Scheckler first gave a broad picture of the cost of the insulation contractor with the following presentation:

I am Clifford L. Sheekler, Chairman of the Safety and Health Committee, National Insulation Manufacturers Association. I am appearing before you today, along with Mr. Spence Royer, representing the National Insulation Manufacturers Association and the National Insulation Contractors Association.

The membership of both Associations wish to ex-

press opposition to the proposed standard for asbestos dust as published in the Federal Register, Wednesday, January 12, 1972. Also, we wish to express our opposition to the recommendations of the Advisory Committee on asbestos dust, and the National Institute for Occupational Safety and Health criteria document.

The National Insulation Manufacturers Association represents the manufacturers of Thermal Insulation products in the United States. The National Insulation Contractors Association represents the major Thermal Mechanical Insulation Contractors engaged in both the construction and shipbuilding industries throughout the United States.

Our comments will be directed specifically to the application of asbestos containing insulation products and not to the manufacturing of such products.

The construction and shipbuilding work currently underway by our Thermal Mechanical Insulation Industry is being done under both government and private contracts. Federally funded contracts involve office buildings, hospitals, schools, libraries, missile facilities, defense projects, dams, airport facilities, rapid transit systems, low rent housing, military housing, air and water pollution projects, shipbuilding and ship repairing for the U.S. Navy—Coast Guard—Merchant Marine and Army.

Private funded contracts include office buildings, hotels, theatres, refineries, power generating plants, chemical plants, other types of industrial plants, housing, University buildings, hospitals, and others.

We, in the thermal mechanical insulation construction industry, excluding the manufacturing of insulation products, and considering only the installation of this material, directly involve approximately 40,000 job opportunities in the United States.

This industry represents an approximate \$700 million gross volume of business annually.

Our industry is comprised of over 1000 contractors. Most of these contractors are small businessmen spread throughout the United States. Mr. Royer, who is here with me today, is one of the small businessmen who will present you with his views.

Our opposition to the asbestos dust standards are based on the fact that they are neither reasonable,

practical, feasible, or economically sound. Much of the information for establishing the proposed asbestos dust standards, the NIOSH criteria package, and the Advisory Committee's recommendations, was gathered from experience in this Thermal Mechanical Insulation Industry.

Let us review the course of events concerning the threshold limit value for asbestos dust over the past few years. In 1970 the American Conference of Governmental Industrial Hygienists Threshold Limit Value for Asbestos Dust was published at 5 million particles per cubic foot of air as measured with the impinger method. We were able to work with this standard. At that time the majority of State Departments of Labor and Health maintained the same Asbestos Threshold Limit Value. In December 1970, the Occupational Safety and Health Act became law. In 1971, the first set of safety and health standards became effective. The threshold limit value for asbestos dust then became to 12 fibres per milliliter greater than 5 microns in length as measured by the membrane filter. This industry did not question the reduction of the threshold limit value from 5 million particles per cubic foot to 12 fibres per milliliter, and the complete change of the method for monitoring asbestos dust. Instead, we immediately went to work by introducing new methods, equipment, and materials, to reduce dust levels to within the 12 fibre limit. On December 7, 1971, Emergency Asbestos Dust Standards were published in the Federal Register again reducing the Threshold Limit Value for Asbestos Dust from 12 fibres per milliliter greater than 5 microns in length to 5 fibres per milliliter greater than 5 microns in length. On January 12, 1972, the proposed asbestos dust regulations, with a Threshold Limit Value of 5 fibres, was published in the Federal Register. Thus, far, in conjunction with these proposed regulations, both NIOSH and the Asbestos Advisory Committee have made recommendations for further reduction of the Threshold Limit Value for asbestos dust to 2 fibres per milliliter greater than 5 microns in length. You now have a picture of the inconsistency and uncertainty involved in the establishment of an Asbestos Dust Standard.

From 1970 to-date, a period of just over two years, the Threshold Limit Value for asbestos dust has been changed from 5 MPPCF to 12 fibres, then to 5 fibres, with a current recommendation for a 2 fibre level. With each of these Threshold Limit Value changes there have been many other related requirement changes that add to the total confusion, such as, respiratory equipment, dust collection, vacuum cleaning equipment, and others. The change from 5 MPPCF to 12 fibres has been a costly one. Our industry has, with some difficulty, absorbed this cost. We frankly cannot meet the 5 fibre Emergency Asbestos Standard as currently effective, nor can we absorb the cost of the Emergency or Proposed Asbestos Standard and its related provisions. It is need-

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less to say, therefore, that to achieve a 2 fibre standard as recommended by the NIOSH Criteria Package and the Asbestos Advisory Committee, is neither practical, feasible, or economically possible.

Let's carefully examine the reasoning for the erratic revisions of the Asbestos Threshold Limit Value since 1970. As I have already told you, much of the information which contributed to these revisions was gathered from our Thermal Insulation construction industry. At its best, this information is scanty, inconsistent, incomplete and inaccurate. First of all, I told you that at the change of Threshold Limit Value from 5 MPPCF to 5 fibres per milliliter, there was also a change in the method for monitoring asbestos dust from the standard or midge impinger to the membrane filter. There is absolutely no method for correlation between the asbestos dust counts determined by monitoring with the impinger as compared to the membrane filter. It is, therefore, impossible to compare the exposure levels in terms of numbers of fibres per milliliter greater than 5 microns in length with numbers of particles of total dust when using the impinger method. It must be recognized that the impinger method included particulate matter other than asbestos fibre.

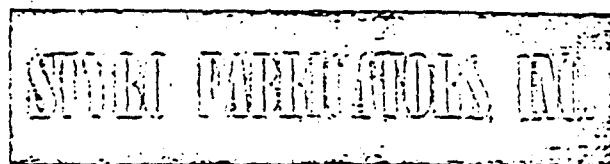
Physical examinations on a part of the work force installing thermal insulation materials have been conducted. The disease involvement determined by these physical examinations has been related to the present day asbestos fibre exposure as monitored by the millipore filter method. These factors can not be compared or related. Also, based on supposition and assumption, it was concluded that the exposure levels of men working in construction and shipbuilding before, during, and subsequent to World War II were at the same levels of exposure as is a worker engaged in similar activities today. This hypothesis is not true. The types of materials have changed, the percentage of asbestos contained in thermal insulation products has been reduced, the method of installation has changed, and fabrication equipment has changed. Each of these changes since the early 1940's has contributed in the reduction of dust levels. It is, therefore, illogical to compare disease occurrences which resulted from exposure from 20-30 years ago with dust levels monitored on construction sites within the last several years. It is also illogical to compare our American industry with that of foreign countries.

As I said, we have withstood the change from 5 million particles per cubic foot of air to 12 fibres based on insufficient information gathered from small segments of the industry. Although there was no further input of pertinent information, again, based on supposition and assumption, the level was then reduced from 12 fibres to 5 fibres. Now, still based on supposition and assumption, with no further information available, both NIOSH and the Asbestos Advisory Committee are recommending a reduction to 2 fibres. While these reductions in the Threshold Limit Value

have been readily forthcoming, the proposed regulations, NIOSH Criteria Package, and the Asbestos Advisory Committee recommendations are completely void of any references to prohibiting or restricting workers who are habitual cigarette smokers from working with products containing asbestos fibre. The same studies, upon which much of the emphasis has been placed concerning the reduction of the Threshold Limit Value, also demonstrate drastic effects of cigarette smoking when associated with the pulmonary disease, Asbestosis.

As I told you, we have not achieved the level of 5 fibres. We are making a decided effort to do this. We have problems unique to the construction industry in attempting to comply with the proposed asbestos standards. I am not at this time going to review all of the minute problems involved in the application of these standards, instead, I am going to speak to the economics of achieving this proposed standard of 5 fibres per milliliter 5 microns and greater in length as published in the Federal Register January 12, 1972. We feel, with the economic impact that this regulation will have on the Federal Office of Budget Management, other Federal agencies, including the Armed Services, and on private enterprise, it is worthy of very careful consideration by the Federal Department of Labor.

We brought together a number of the foremost contractors in the Thermal Mechanical Insulation Industry



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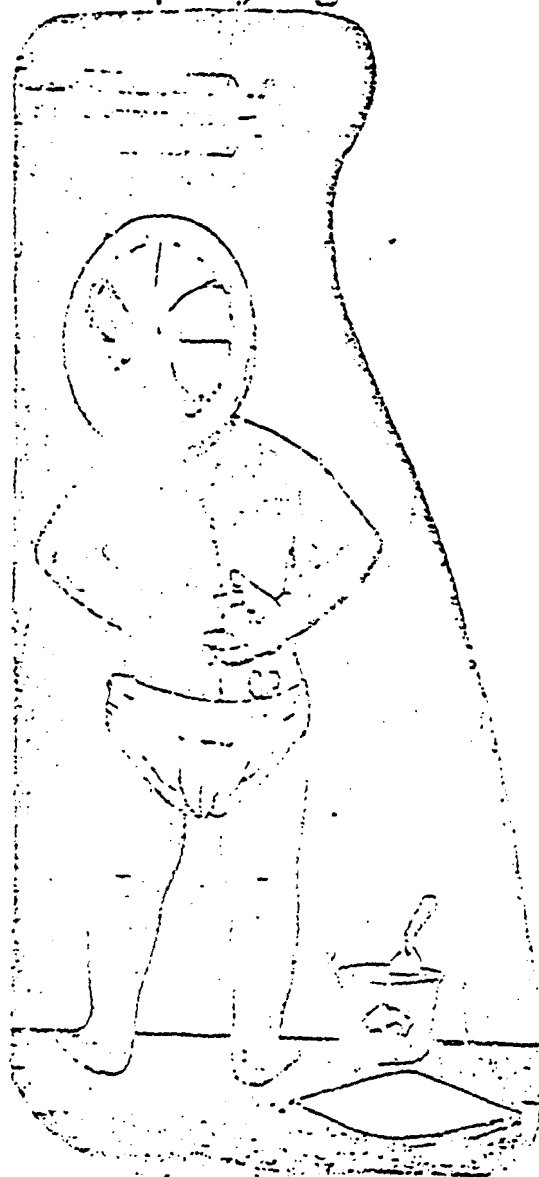
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and together we evaluated the cost of complying with the proposed asbestos regulation. This was accomplished by breaking down the regulation into each of its requirements and computing them individually. The requirements were computed individually, included monitoring, based on purchasing the monitoring equipment and having the samples analyzed at a private laboratory; respirators of the disposable type; physical examinations; dust collection and vacuum cleaning equipment; warning signs; protective clothing; and work placement. As a base we used a 100-man contracting unit with 25% of the unit working with asbestos containing products. We computed off-job time and lost time productivity at an average construction worker's rate. The total cost for implementing a program to comply with the proposed Asbestos Dust Regulations as published in the January 12, 1972 Federal Register for a 100-man construction unit, 25% of which worked with asbestos containing materials, is \$795,375.00 direct expenses per year—\$27,740.00 administrative expenses per year, and \$16,700.00 of capital expenses, therefore, a total for the 100-man unit, with 25% engaged in work with asbestos containing products, amounts to \$839,815.00 increased construction expense for the purpose of complying with the proposed Asbestos Dust Regulation. The breakdown of these figures is: Costs developed for a contractor who employs an average of 100 field insulation workers. Twenty-five percent of this crew will, on the average, be applying materials containing asbestos fiber and, therefore, will be affected by the proposed standards.

INDUSTRY STATISTICS

FIELD INSULATION WORKERS

1. Total number applying some asbestos-containing insulation materials 40,000
2. Total equivalent full time workers applying asbestos-containing materials 10,000

INDUSTRY GROSS SALES

1. Total—construction, maintenance and ship building \$700,000,000
2. Construction only—union and non-union \$570,000,000
3. Number of construction firms—union and non-union 1000-1200

REMINDER: Under OSHA, report any accident resulting in the death of an employee, or any one accident which injures five employees. This report must be made to your OSHA Area Director and may be made by letter, telegram or phone.

MONITORING

Equipment Cost—8 Units Req'd. @ \$150 ea.
 Lab Expense—2 samples/day/employee @ \$50 ea.
 Admin. Expense—1 full time employee to perform monitoring. take
 samples to lab, handle respirator program, etc.
 Lost productivity—5%

RESPIRATORS

Throw-away Type—\$1.50/day/employee
 Fitting of Respirators—10 min./day/employee
 Admin. Exp.—purchasing, inventory control & delivery expense of
 respirators
 Reduced Productivity—10%
 Maintenance of positive pressure respirators

PHYSICAL EXAMINATIONS

Examination Cost—\$150.00 ea. x 25 men
 (Although exam. proposed every 2 yrs. by Advisory Comm. for
 employees with less than 10 yrs. exposure. more than 25 men will
 require exam. due to involvement w/asbestos-containing mds.)
 Administration—recording keeping, etc. \$25 ea.
 Off-job time—1 day x 25 men x \$80/day

WORKER PLACEMENT

Re-assignment of workers who are unable to use respirators due to
 cold, etc.—2 hrs./day x \$10.00

EQUIPMENT COSTS

Tables (perforated) w/ dust collectors 10 @ \$350 ea.
 Dust collectors for band saws ? @ \$3,000 ea.
 Vacuum cleaners 10 @ \$300 ea.
 Ventilation equip. w/dust collector 1 @ \$3,000 ea.
 Maintenance, hdg. & operating cost
 Admin. cost

WARNING SIGNS

Cost of signs \$.25 ea. x 2500
 Posting & removing 10 min./day/employee

PROTECTIVE CLOTHING—(Rec. by Advisory Comm.)

Cost of clothing—throw away type \$3.00 ea. x 25 workers x 250 days
 Issue & disposal
 Lost time 10 min./day/employee

Cost Summary * TOTAL

* Not included—cost to isolate work areas or additional costs to provide spe-
 cial handling of scrap removal.

To obtain the total impact of these cost increases we must multiply
 cost figures above by 400 since this analysis based upon 25 full
 time empl. applying asbestos containing materials is 10,000 in
 total industry—

$$\frac{10,000}{25} = 400$$

Total Industry Impact

Capital Items \$	Annual Expense Items	
	Admin. \$	Direct \$

1,200

625,000

25,000

25,000

9,375

10,000

1,500

50,000

(Incl. in maint.
cost of equip.)

3,750

625

2,000

5,000

25,000

Incl. in admin.
exp. under
Monitoring

625

10,000

18,750

1,500

10,000

\$ 16,700 \$ 27,750 \$ 795,375

\$6,680,000 \$11,100,000 \$318,150,000

This represents an increased labor cost of 168% that must be passed on to the customer in order for a contractor to survive. The customer, in many instances, is the Federal Government and the Office of Budget Management. Considering the inadequacy of medical and scientific research information concerning safe exposure levels of asbestos dust, and also considering the supposition and assumption on which the proposed Threshold Limit Value is based, it is difficult to imagine a justification for the economic stress this regulation will place upon the construction industry, Federal Government, and private enterprise. We respectfully urge the Secretary of Labor to:

1. Reinstate the Threshold Limit Value for Asbestos Dust at 12 fibres per milliliter 5 microns or greater in length, for an interim period.
 2. To initiate a comprehensive epidemiological study of the entire asbestos industry as it exists in the United States; and to determine not only the effects of asbestos but also asbestos associated with other airborne contaminants and cigarette smoking.
 3. To provide adequate lead time prior to the effective date of reduction of any Threshold Limit Value in order that the construction industry, operating on fixed contracts, can cope economically with the increased costs that such a reduction will create.
 4. To provide definitive information concerning the specific requirements of regulations.
 5. Provide our trade associations with representation on future Study and Advisory Committees.
- We, representing the construction industry, have been moving forward to provide safety and health information and implement safer working conditions. We intend to continue and accelerate this program. It is our desire to provide every possible protection for our people.

Thank you for the opportunity of appearing at this public hearing today.

Al Schinnerer from the West Coast also made a fine presentation, as follows:

I am Albert D. Schinnerer of Portland, Oregon, and am an employer trustee of the Asbestos Workers

Western States Occupational Health Plan. This occupational health plan is operated for the benefit of our construction industry. Our contractual consultant States and specifically includes all of the twelve (12) most western of the continental states.

Our plan was funded in 1967 and on June 8, 1967, the trustees resolved to begin working with Drs. Clark Cooper and Irving Tabershaw of the School of Public Health at the University of California for the purpose of minimizing asbestos and other related problems in our construction industry. Our contractual consultant service now operates under the name of Tabershaw-Cooper Associates and is well recognized in the occupational health field. I give this history so that you will know we represent 5 years of demonstrated concern about occupational health and are not novices on the subject of asbestos.

At this time I want to point out that the name "Asbestos Worker" is a misnomer when applied to the construction industry insulator and has been so for some years. Materials that are involved in much of the applied work today don't contain asbestos. Therefore we generally don't have a situation where the worker is continually exposed to asbestos-bearing products week after week or year after year.

In a 1968 paper prepared for the Second International conference on the Biological Effects of Asbestos at Dresden, Germany, Dr. Clark Cooper and Leroy Balzer made a then current estimate on their observation of the insulator's time spent on work involving the use of asbestos-bearing materials and placed it at 45%. That study is 4 years old and now we use asbestos-free cements and asbestos-free spray material, just to name two subsequent material changes.

With respect to the proposed Standard 1910.93 a, for exposure to asbestos dust, I have great concern for the practical implementation of the standard in our construction industry. In construction, an employer often has a few people here and a few people there and you can multiply this for the number of jobs he is currently doing, generally over a large geographical territory. To monitor each of these jobs where some asbestos-bearing product is specified for installation at the proper time period is likely an impossible task for any of our contractors. I want to go a step further to say that it is unrealistic to expect that individual construction employers have the monitoring expertise required and, further, many don't even have the resources to acquire it.

Tabershaw-Cooper Associates have surveyed in the field a number of jobs in the Western States jurisdiction and have monitored for asbestos dust the various activities that the insulator performs when he handles asbestos-bearing products. From this they have been able to make some conclusions on what could be a hazardous activity and what is not a hazardous activity in the course of a day's work. From the studies there have been promulgated some guide lines for good work practices in the insulation contracting in-

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dustry. It is my suggestion that study be given to these (including construction industry input) to arrive at construction industry controls for asbestos dust rather than the proposed 5 fiber 8-hour time weighted average.

I offer my observation that the asbestos dust problem today is not what it was 30 or 35 years ago and, in construction, those are the illness cases we see today. Given a proper amount of time for implementation, the industry can do even better.

Now, I want to make some comments on other items in the proposed standard.

1. Under paragraph heading (d)—Particular operations and products—sub-paragraph (6) states that asbestos dust shall be removed only by vacuum cleaners. This wording is unnecessarily restrictive and unimaginative for improvement in methods. Wet cleaning methods should be authorized plus an allowance for other efficient techniques that may be developed.

2. Paragraph (e)—Warning Signs

I construe this section as applying at the time respirator use is mandatory. When operations are not of hazardous nature, paragraph (e) is not applicable.

3. Paragraph (g)—Medical Examinations; and
(h)—Records

I should like to advise that for employers in the Western States there is by agreement between the Western Insulation Contractors' As-

sociation and the Western States Conference of Asbestos Workers a provision for funding medical examinations for lung disease surveillance in each local area, in accordance with specifications set forth by the trustees of the Western States Occupational Health Plan. This program has been set up at local clinics by Tabershaw-Cooper Associates and they are prepared to continue this program and set the appropriate standards of the examination and the frequency that will provide for the worker's health. I believe the above arrangement does meet the objective of this part of the Standard. If not, I think it is necessary to revise the wording for the construction industry so that it will.

Just one example:

NIOSH recommends that preplacement and termination medical examinations be required for every term of employment of asbestos exposed workers. In construction, as the work load shifts from one employer to another in an area, or from one area to another, it is not uncommon for a worker in the labor pool to have a half-dozen terms of employment in a single year. It isn't likely, but if each were asbestos exposed that would amount to 12 examinations for one individual.

My last comment is in respect to Standard 1910.12—Construction Work—which is not presently pro-

Continued on page 4341

12 FIBERS, 5 FIBERS, 2 FIBERS

Continued from page 13

posed to be amended: My request is, however, if the proposed Standard or if the NIOSH Review Committee and/or the Advisory Committee on Asbestos Dust recommendations are adopted, that Section 1910.12 be revoked and appropriate standards be separately set for the construction industry in Part 1518. A similar request is made for separate standards for work to be done on ships. Another speaker has already made reference to those special problems."

Duncan Halliday of Mount Sinai gave an excellent presentation warning that the criteria was badly drawn and too rigid in its demands. Dr. Holmes from the United Kingdom also cautioned about setting too rigid a standard. He told the hearing that the United

Kingdom's standards do state a fiber count and that a gray area of from 2 to 12 fibers is acceptable.

Dr. Sidney Wolfe of Nadar's Health Research Group called asbestos "a classic example of the invisible line between the work place and the environment because a lot of people are affected who don't even work with the stuff".

The AFL-CIO charged that "the largest epidemic of occupational cancer ever recorded may be affecting asbestos workers and their families.

NIOSH's Dr. William Johnson stated that "the tip of an iceberg" has only been uncovered on asbestos caused cancer.

A representative of the Oil, Chemical and Atomic Workers International Union asked for a zero exposure level, regardless of the economic cost.

THE FLINTKOTE COMPANY
INTER-OFFICE CORRESPONDENCE

TO: Mr. John Szal

SUBJECT: AIA/NA

Kicks

*please advise
Hooker*

FROM: A. R. Hooker, Jr.

DATE: June 14, 1972

I am attaching for each of you an announcement dated June 12 advising that AIA/NA's next meeting is to be held in New York City on June 22.

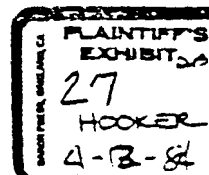
I will attend the meeting as the Flintkote representative. In the meantime, I would like to call to your attention Pages 2 and 3 of the announcement which state the long range objectives of AIA as well as the principle topics that will be discussed at the forthcoming meeting.

I would like to have as much background information as possible concerning the studies that our Corporate Engineering Department have made in order that I can be as well informed as possible concerning Flintkote's over all potention problems, costs and ideas regarding the OSHA asbestos regulations.

ARH

ARH:jo
attachment

cc: Messrs. J. D. Moran with attachment
W. N. Knorr " "



Asbestos Information Association/North America

22 East 40th Street
New York, N. Y. 10016
(212) 651-8205

*cc J.D. Moran
J. Szal
W. Knorr*

June 12, 1972

TO: AIA/NA MEMBER COMPANIES
AIA/NA ENVIRONMENTAL CONTROL SUB-COMMITTEE
AIA/NA LEGAL COUNSEL

James Armstrong	- Bendix Corporation
E. C. Bratt	- H. K. Porter Company, Inc.
G. G. Gabrielson, Jr.	- Nicolet Industries, Inc.
Bernard Gross	- American Bilt Rite Rubber Company
J. C. Harkins, Jr.	- Congoleum Industries Inc.
A. R. Hooker	- The Flintkote Company
C. A. Neumann	- Kentile Floors Incorporated
G. W. Nickel	- Armstrong Cork Company
J. W. Rawlings	- Union Carbide Corporation
Clifford Seymour	- The Carborundum Company
Philip Weinstein	- Evertex Incorporated
G. W. Wright, M.D.	- St. Luke's Hospital

Gentlemen:

On June 22, 1972, a special meeting of the Asbestos Information Association/North America will be held in the Biddle Room of the Harvard Club, 27 West 44th Street, New York City. The meeting will begin at 10 A.M. and will continue through lunch.

The purpose of the meeting is to discuss future industry action with regard to the new Federal Occupational Safety and Health Administration (OSHA) standards on asbestos.

Because of the generally reasonable regulations issued by OSHA and the 1976 effective date of the two fiber standard, the asbestos industry may be lured into a false sense of security and consider the OSHA battle to be over. This would be a most serious error to make. If we are to convince OSHA that the two fiber standard and other unfavorable sections of the regulations must be changed, then we must begin now to develop the medical, technical and economic evidence necessary to prove our point. In the introduction to the regulations on page 11318 of the Federal Register, it states:

"In view of the undisputed grave consequences from exposure to asbestos fibers, it is essential that the exposure be regulated now, on the basis of the best evidence available now, even though it may not be as good as scientifically desirable. An asbestos standard can be reevaluated in the light of the results of ongoing studies, and future studies, but cannot wait for them. Lives of employees are at stake."

The regulations can be changed, but it is up to the industry to prove to OSHA that changes are necessary and what those changes should be. It is desirable, therefore, for the AIA/NA to monitor ongoing studies and to encourage and support additional studies as are needed to:

1. Determine as precisely as possible over the next four years a safe numerical standard for the various asbestos-related diseases. While much has been accomplished in this area in the past, additional studies are needed.
2. Determine whether one or more varieties of asbestos is more or less hazardous than any other variety.
3. Determine through on-the-job evaluation the technological feasibility of achieving both five and two fibers throughout the industry.
4. Determine the actual cost to the industry in both dollars and jobs of achieving two and five fibers.
5. Determine the degree of reliability of the membrane filter method as a policing and monitoring tool in the asbestos industry. A proposal for an AIA/NA sponsored study in this area is presently under consideration.
6. Develop other evidence as required to establish the necessity of additional changes in the regulations as deemed desirable by the industry.

*This is a
20 yr project.
based on Q & A
studies.*

*another 20 yr
study*

In addition to the above, other topics to be covered at the June 22 meeting will include:

- a. The overall effect on the industry of the new standards.

- ✓ b. Programs of assistance for industry companies and customers to help them comply with the regulations.
- ✓ c. The establishment of a cooperative working relationship with OSHA with regard to the implementation and interpretation of the standards.
- d. The advisability of legal action by the AIA/NA against OSHA, especially in light of (1) the four year effective date of the two fiber standard, (2) the favorable decisions by OSHA on most other industry recommendations (see attached two page summary of OSHA acceptance of industry vs NIOSH and Advisory Committee recommendations), (3) the high cost (\$300-500,000) of such a suit, (4) the slim possibility of success, according to AIA/NA legal counsel, and (5) the adverse effect that such a suit would have on our working relationship with OSHA.

0? With regard to point c. above, the AIA/NA is presently in the process of arranging a meeting with representatives from the standards development and enforcement sections of OSHA to resolve some questions with regard to the interpretation of certain sections of the regulations. If your company has any questions of this nature, please let me know as soon as possible so that they may be included on the agenda for our meeting with OSHA. It is the AIA/NA's intention to establish a continuing program of uniform standards interpretation with OSHA, so that industry questions and problems may be resolved at the highest levels in Washington, rather than through OSHA regional offices, which may differ in their standards interpretation and enforcement practices from one region to another.

Because of the relatively short time remaining before the June 22 meeting, we would appreciate hearing from you as soon as possible whether you or a representative will be able to attend this most important AIA/NA planning meeting.

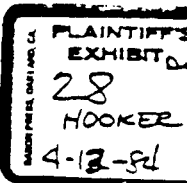
Sincerely,

M. M. Swetonic

M. M. Swetonic
Executive Secretary

Enclosure

I.H. FLINTROTE COMPANY
INTER-OFFICE CORRESPONDENCE



FROM: S. Weiss
White Plains

DATE: September 27, 1972

SUBJECT: OSHA Bulletin #14
Asbestos Dust Hazard Warning Signs

The Asbestos Information Association has made arrangements to have Asbestos Dust Hazard warning signs printed. The signs will conform to OSHA specifications contained in Standard 1910.93 (g) (1) (ii).

If you wish to obtain the warning signs, you can request them directly from Mr. A. R. Hooker, Jr. who is located at the White Plains office.

10-1-78
Dick Penn
↑

Do we need comp?
We don't have

Mr. Harvey,

Please order 2 two
signs for J. Kent.

Sometime ago we ord
6 signs for Mr. Fletcher.
He has not posted them
yet

→ 12 28

THE FLINTKOTE COMPANY
EAST RUTHERFORD, N. J.

Inter-Office Correspondence

DATE January 30, 197

TO Messrs. FROM M. L. Johnson SUBJECT: Asbestos

E. A. Opila Chicago Heights (TT)
W. Mortonson Rutherford
L. Sands Chicago Heights (TT)

L. Zizic Chicago Heights (TT)
R. Lozinak Chicago Heights (LP)
N. Davis Chillicothe
J. Guepet Rutherford Plant
E. Fletcher Pioneer
J. Barrois New Orleans

F.J. Bartlett Rutherford
W. Dickson Rutherford

S. Spike Chicago Heights (TT)

J. Sweeney Pioneer
A. Anticich New Orleans
W. Inversetti Chicago Heights (TT)

Attached for your information is a
letter from the AIA and the Newspaper
Article referred to in the letter

M. L. Johnson

sm
Enc.

OSHA

PLAINTIFF'S
EXHIBIT
29
HOOKER
4-12-86

Asbestos Information Association/North America

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New York, N. Y. 10016
212-689-3378

DISTRIBUTION:

W. Harvey
M. L. Johnson
E. R. Stainback
H. L. Taylor

January 17, 1973

cc: M. C. Carpenter
A. Sichau
S. Weiss

Gentlemen:

Within the past few weeks, a number of developments have occurred of considerable interest and importance.

1. "The New York Times" Sunday magazine section is planning to run a feature story on asbestos-health in its February 4th issue. The author of the article, Robert Sherrill, a well-known free-lance writer, contacted the Association on Friday, January 5th, a mere week before the deadline for the completion of the article. Because of his deadline, Sherrill declined numerous invitations from both the Association and Johns-Manville to meet personally with industry representatives and to tour an asbestos plant. Considerable material was sent to Sherrill and conversations totaling perhaps four hours were held with him over the phone. Nevertheless, because of the unfortunate late entrance of the industry into this matter, it is anticipated that the article will probably contain many elements of a "scare" nature. See LAST PAGE
2. The long delayed Federal Environmental Protection Agency (EPA) emission standards on asbestos are now scheduled to be published in the Federal Register on or about February 15th. On the basis of recent conversations with EPA officials, it appears likely that the standards will not be unreasonable and will not place an undue burden on the asbestos industry. Arrangements are being made to obtain and distribute copies of the Federal Register containing the EPA standards in the same rapid manner as was accomplished with the OSHA standards last June.
3. The Center for Science in the Public Interest, a Ralph Nader organization, is planning to publish a 50 page booklet on asbestos-health sometime within the next month. It can be reasonably assumed that the booklet will not be favorable to the industry. Efforts to

date to learn the precise contents of the booklet have been unsuccessful. The booklet will probably be officially released at a press conference in Washington, with Ralph Nader attending to lend his considerable publicity value to the project. Arrangements have been made to obtain copies of the press release and booklet on the day of the conference so that the Association can rapidly prepare and distribute its own press release on the booklet, if it is deemed desirable to do so.

4. A bill has been introduced in the U. S. House of Representatives to repeal the Metal and Nonmetallic Mine Safety Act of 1966 and to transfer standard setting and enforcement authority for U. S. mining operations, including asbestos, from the Department of the Interior to OSHA. The implications of this proposal are quite serious. Additional details on this subject will be distributed in the near future.

Sincerely,

Matthew

Matthew M. Swetonic
Executive Secretary

P.S. We have just learned that "The New York Times" article may appear this Sunday, January 21.

*1/19/73 advised it will definitely
be in the 1-21-73 Magazine
(Sunday) Section —*

Asbestos, the savior of lives, has a deadly side

N.Y. TIMES MAGAZINE
JANUARY 21, 1973

By Robert Sherrill

Shipyard work attracted about 4.5-million Americans into its ranks at one time or another during World War II, and an estimated 3.25-million of those people are still alive. If they think about the experience at all these days it is probably to again remind themselves with satisfaction that things could have been worse. Whether they went into the work simply for a paycheck, or as a kind of emancipation (at some shipyards nearly one-third of the workers were women), or as an alternative to the military draft, those who built and repaired America's ships took comfort in supposing that however dirty and boring the work sometimes became, at least it was safer than being in the front lines.

Now it appears they may have been wrong to think so. The fatality statistics are still too scattered and iffy to yield a solid conclusion, but there are some disquieting hypotheses to be drawn from such cases as that of the New York tire company executive we shall call Charles Armin because his family prefers to keep his real name out of this. Armin had never had a serious illness in his life. He was a 200-pound, robust, hearty fellow who looked much younger than his age, 60. He enjoyed sailing in his spare time and ran a taut ship on the job, too.

Then in December, 1971, he began getting sharp pains in his chest, enough to worry about, enough to send him to the doctor. Tests showed his heart was in fine shape, and the lung X-rays showed nothing wrong. Still, the pains persisted and grew worse, and in April the doctors decided to go in for a look.

They found that Mr. Armin was suffering from mesothelioma, a kind of cancer that has only come into the medical fraternity's conversation in recent years. Mesothelioma, which has been so rare that it is not separately categorized in international medical classifications, is cancer of the chest lining or of the abdominal lining. Everyone who gets it is going to die from it within a year because it covers the whole lung area from apex to base, or infuses the whole abdomen, and no surgeon can take out so much and leave a survivable patient. It is a painful disease and progressively so. The cavity lining fills with fluid, which must be drawn off periodically; when the disease strikes the chest area the patient slowly suffocates. None of the usual cancer palliatives do much good, and

there is no known cure. Mr. Armin's mesothelioma was discovered in April. He was dead 14 weeks later.

The thing that makes his case—among a number of others—seem so ominous to some occupational health experts is that they know what caused it, and they know that the same cause has touched the lives of millions of other Americans. The cause was asbestos.

Now, asbestos can be credited with saving many lives: fireproof clothing, fireproof insulation in buildings, safer and more durable brake linings, etc. But now asbestos is beginning to reveal its other side, not only in the appearance of the compara-

tively rare mesothelioma, but, on a much broader scale, as a catalyst of just plain lung cancer, and of asbestosis, a crippling disease which scars the lungs and interferes with the passage of oxygen into the blood. Anyone with an advanced case of asbestosis will probably feel more comfortable climbing the stairs backward, so that he can sit down on each step. He also can be certain that because of the presence of the asbestosis he has as much chance of developing cancer as of escaping it. Heavy doses of asbestos in the lungs also encourage the carcinogenic effects of tobacco smoke to a remarkable degree; studies have shown that asbestos workers who smoke have a lung cancer rate 500 per cent higher than smokers in the general population.

Occupationally, probably five million or so Americans—miners, construction workers, oil-refinery workers, etc.—breathe a significant amount of asbestos dust every day they go to work. The hazard also crops up in distinctly nonoccupational places, such as the Northside Elementary School in Lanark, Wyo., which recently was closed by the state health department because asbestos, which had been sprayed as an insulation on the ceiling, was beginning to come loose and mix with the air in dangerous amounts. But wherever encountered, the hazard is especially insidious because it is like a long-term time bomb: For reasons doctors don't fully understand, the diseases related to asbestos do not explode for many years after the patient breathed it in.

Mr. Armin, for example, had had nothing to do with asbestos since World War II, when, from 1941 to 1943, he was a turnsmith in the Brooklyn Navy Yard. He helped install fiber glass in destroyers' refrigeration holds, and he also secured asbestos-covered pipes with hangers and straps. After 1943, he got a white-collar job away from the shipyard and never again worked with asbestos. His 29-year lag between contact and illness was not surprising, indeed, for asbestos disease, 25 to 30 years is the normal period between exposure and development of symptoms, which is why medical scientists who have specialized in the occurrence of asbestos-related industrial diseases believe that the first big wave of cancers from World War II shipyard exposure may be at hand.

Among those who think so are Drs. Irving J. Selikoff and E. Cuyler Hammond. Dr. Selikoff of Mount Sinai School of Medicine, City University of New York, is at least among the three or four top authorities on asbestos disease. Dr.

Hammond is vice president of the American Cancer Society in charge of epidemiology and statistics, who already has gained a slice of immortality as the fellow most responsible for statistically demonstrating the relationship between smoking and cancer. To some high officials at the U.S. Department of Labor and to many high officials in the asbestos industry, these two doctors and their colleagues represent a kind of reform plague.

Indeed, Selikoff is seen by some leaders of the asbestos industry as a cruel showman. F. J. Solon Jr., vice-president for environmental affairs of Johns-Manville Corp., the nation's largest producer of asbestos, says, "To terrify people who worked in shipyards 30 years ago, and now can't do a p.d. thing about it—that's something I couldn't square with my conscience."

Of the shipyard dangers, Selikoff says this: "We do know that there are a large number of mesotheliomas in Great Britain. Probably over 1,600 now, people who worked in British shipyards starting in 1933. They are five years ahead of us, so Britain casts its mesothelioma shadow over the United States. We know it's a large number, but what the count will actually be we do not know. Nor do we know the percentage of incidence in Britain; they don't have what we call a population base. But any percentage would be a terrible situation. The only data that we do have, that gives percentages, is a new paper just come out by Dr. D. Fletcher in Barrow, England, who followed

a group of shipyard workers from 1963 to the present, and he compared those who had X-ray signs of asbestos exposure with the general male population in that area. He found a three-times increase of lung cancer among those who had X-ray evidence of asbestos exposure."

(Industry spokesmen note that the British experience may not be wholly comparable to the American, since in British yards asbestos was sprayed with a spray process not used in the U.S.)

The thing that is so alarming to Selikoff's group is that some risk applies not only to asbestos workers (only one-five-hundredth of the shipyard payroll), but to everybody who worked downwind or in the general vicinity of the asbestos jobs. In shipbuilding, this means anybody who has worked within the confines of the ship's structure: welders, shipfitters, machinists, pipefitters, electricians, carpenters, boiler-makers—the whole gang.

"You don't have to work with asbestos for 30 years to develop mesothelioma or some other cancer or asbestosis from it," Selikoff explains. "Absolutely not. Because once you get it in your lungs, it stays there forever, and as the years go by your lung continues to be exposed even though you may be out in the Rockies. The nice air in the Grand Canyon won't protect you because you've already got it in your lungs."

In 1951, the lung X-rays of Robert Kerr looked normal. He was a little short of breath, and Dr. Selikoff couldn't understand why, but he put it down to all that dirt Kerr was breathing at the quarry where he worked. X-rays in 1954 showed Kerr developing some lung scarring. It looked like asbestosis, and Selikoff asked Kerr if he had ever worked with asbestos. No, he said, never. He told Selikoff his whole employment history and asbestos work wasn't part of it. By 1955 the X-rays showed scarring in both lungs. Selikoff's suspicions increased: Was Kerr certain he had never worked with asbestos? None. Never. But as he talked to Selikoff, Kerr's wife interrupted. "Doh, do

you remember when we first got married? In 1934, you worked in that brick-lining place." "Oh sure," said Kerr, "but I only worked there for six months as a weaver."

"And here's his film on June 7, 1972," says Selikoff. "You can see the white stuff all through the lungs. Bob's retired now, 50-odd-years old, living in Florida, unable to breathe, can't even do his own lawn. Six months in 1934! Came up from Florida so we can be sure he had no cancer. He doesn't. He just can't breathe."

A number of asbestos-company officials and asbestos-union officials who rose through the ranks have found that they are no safer for having been away many years from the actual handling of asbestos. Raymond Rider entered the asbestos trade in 1947, but in the nineteen-sixties he became an official with New York Local 12 of the International Association of Heat and Frost Insulators and Asbestos Workers, and for 10 years he didn't touch the stuff. But he had breathed enough in his early career. X-rays taken in Jan., 1971, showed he was still in the clear, but by Feb., 1972, they showed mesothelioma. Since then he has had lung surgery, 24 cobalt treatments and extensive chemotherapy. His father, George Rider, also a union officer, died of the same disease.

The response of the industry and especially of the Federal bureaucracy has been strangely indifferent. The random breather may not care, even though asbestos can harm him too—just, for example, he inhales asbestos thrown into the air by the demolition of buildings. But the asbestos worker feels very lonely with his special demon. William G. Bernard, secretary-treasurer of the Asbestos Workers Union and himself a victim of lung-scarring, complains: "You know, we have damn near as many, or more, people who work with asbestos as there are coalminers in the country. But nobody comes about us, because we don't have any disasters. The miners have a disaster and their pictures show up on the front pages with dirty faces, and everybody feels sorry. So they put a black lung bill

through Congress. We have a higher percentage of people dying of respiratory trouble, but nobody gives a damn about it."

On Jan. 1, 1943, Locals 12 and 22 of the Asbestos Workers Union in New York and Newark, N. J. had 632 members. Dr. Selikoff and his colleagues have traced the 625 who matter here (seven died early, mostly of accidental causes). Given their age, 203 of those men would normally have been expected to die by the end of 1962. Instead, 253 had died—an excess over the normal death rate of more than 20 per cent. About seven should have died from lung cancer, but 45 died of it. Instead of the normal nine or 10 deaths from cancer of the stomach, colon or rectum, there were 29—"not so unexpected," as Selikoff points out, for "anybody who inhales dust also ingests it. Any worker is always spitting out the stuff you think he's only inhaling." And whereas nobody in the general population dies of asbestosis—scarred lungs—12 men in this study group died of it during the first 20 years, and 4 died of mesothelioma.

That left 376 of the group still alive on Jan. 1, 1971. Between then and the end of 1971, 78 of them should have died if they followed the pattern of the general population. Instead, 168 died. "And why? The same thing," says Selikoff. "There should have been four or five lung-cancer deaths in this group. There were 43. There should have been no deaths of mesothelioma—that doesn't occur in the general population. There were 23. There should have been three deaths of cancer of the stomach or rectum. There were 12. And of course there should have been no deaths from scarred lungs. There were 20.

"If we total up this one small group of workers from Jan. 1, 1943, to Dec. 31, 1971, almost 20 per cent died of lung cancer. Out of the 430 men who died, one out of every five asbestos workers died of lung cancer. Almost seven per cent died of mesothelioma. Almost 10 per cent died of cancer of the stomach, colon and rectum. Over seven per cent died of asbestosis."

Nor are these figures peculiar to the locals in question. Selikoff goes on to cite more extensive studies confirming

that similar increased deaths "occur in every single group of asbestos workers that's been examined." And he concludes: "This is simply an occupational disaster without parallel in American history."

Such an alarming finding is just now beginning to penetrate the thinking of workers, which is rather odd, since asbestos industry officials and the U. S. Public Health Service and the U. S. Department of Labor have known for years that asbestos could be a serious hazard. For more than 60 years cases of asbestos disease have been positively diagnosed.

Deaths due to asbestosis were clearly defined at least as early as the nineteenth century. The association between lung cancer and occupational exposure to asbestos was proved in a paper published in 1955 by Sir Richard Doll, then chief statistician of the British Medical Research Council. In 105 consecutive autopsies at one asbestos plant in England, he found 18 deaths due to lung cancer. And in 1963 an equally conclusive connection was established between asbestos and mesothelioma in a paper published by Selikoff, Hammond and Dr. Jacob Churg in The New England Journal of Medicine. Since then, there has been an explosion of literature on the occupational hazards of asbestos, encouraged by symposia such as the one held recently in Lyons, France, by scientists from around the world.

The asbestos industry and the U. S. Department of Labor have not seemed exactly overjoyed to receive all this new data; indeed, their basic response has been a combination of defensiveness and hostility and futility. In 1964, when Selikoff was organizing an international symposium, he received a letter from the law firm representing asbestos textile companies, informing him that the industry was aware of what he was up to and implying that if any derogatory remarks about asbestos that might harm its sales should emanate from the conference, he could expect to see them in court. The U. S. Public Health Service conducted air samplings in a couple of dozen asbestos plants in 1964, but it refused to disclose its findings to Selikoff, or, as he puts it, "apparently the key to the file cabinet was lost." Though workers in shipyards today are subjected to much the same asbestos hazards as

4

in World War II. Navy medical officers generally refuse to talk about the problem or to discuss what they are doing, if anything, to protect workers in the yards under their command.

Selikoff's crowd has run into this wall since the beginning. In the early fifties, having recently won the American Public Health Association's Albert Lasker Award in Medicine for his part in developing a drug crucial to the control of tuberculosis, Dr. Selikoff opened a clinic in Paterson, N. J., to continue his research into pulmonary diseases. Among his first patients were 17 men who worked in the Union Asbestos and Rubber Company plant, which started production in Paterson in 1940 and closed in 1954. At that time, all 17 men were strong and working, and appeared likely to go on doing so for many years.

But within seven years, six were dead, and today, only two survive. Seven died of lung cancer, one of mesothelioma, one of stomach cancer, one of colon cancer, four of asbestosis, and one of "other" ailments. Something strange was developing, and Selikoff wanted to broaden the investigation to find out what had happened to all the men who worked in that plant from the time it opened. He needed money, and he asked the U. S. Public Health Service for a grant. It turned him down. When he

asked the asbestos company's officials to let him look at their personnel records, they said they had lost them. But because the factory's output had been used in war production, all its employees had had to be cleared by the F.B.I., so a list of the workers on the factory's payroll during the war years 1941 to 1945 did exist, and by a process Selikoff prefers not to discuss, he got his hands on the names of the 933 workers of that era.

"That's all we needed," he recalls. "That and a lot of work, because we had to trace those 933 men. Surprisingly, we were able to find 877 by the end of 1971."

The effort proved revealing. According to Dr. Hammond's calculations, in a normal population group of that size, considering age and sex factors, 299 would have died by 1971. But in this group, 484 were dead. Normally 50 could have been expected to have died of some kind of cancer; in this group, 143 died of cancer. The group's lung cancer rate was nearly 700 per cent higher than the general population's. Its stomach and colon cancer rates were twice as high. Seven men had died of mesothelioma.

In those war years, many of the workers had been employed for only brief periods at the plant. "Of those who worked for one week or less, when X-rayed 30 years later half of them had some scar-

ring nine had nothing and 10 had some scarring. Less than one week, and they had abnormal X-rays," says Selikoff, who never ceases to be amazed by the statistics he and Hammond use. "So the problem is not only how much you work. Of course, the more you work, the worse it is. But even those who had very little exposure, if you live long enough you're going to have problems."

Intrigued, and wanting to throw his net more widely, Selikoff went to John-Manville Corporation in Manville, N. J. He was not welcome. "Somehow," he says, "the company couldn't find itself able to cooperate." Nor could the Federal Government find funds for the research. But Joe Rodino, president of Local 800, United Papermakers and Paperworkers, which has jurisdiction at Manville, took Selikoff into the basement of the union's headquarters and scratched around and came up with the seniority list for Jan. 1, 1955. There were about 3,000 names on the list. Of these, 629 had worked at the plant for 20 years. Selikoff's men set out to track them down.

"Let's see now what happened to them—and mind, this is only the beginning of what will happen to them," says Selikoff. "Given their ages, there should have been 134 deaths among the 629. There were 193. And again, why did those people die who

The skin of the salamander

Asbestos, a name that embraces a number of fibrous mineral silicates, has been used by man for thousands of years, and for most of that time its qualities have produced confusion and mystery and myth. In the aggregate it is a rock with all of a typical rock's rigidity, but broken up it yields fibers that can be spun and woven as easily as flax or cotton. For centuries it was commonly assumed that asbestos was a vegetable rather than a mineral. There was something obviously strange and wonderful about fibers that seemed so gossamer and yet were as strong as steel wire; an ancient explanation of asbestos' most mysterious power was that the material came from the skin of the salamander, a mythical animal that could endure fire without harm—a notion that was useful to poets even as late as last century (Southey: "Fly, Salamanders, on Asbestos' wings, To Wanton in my Delia's fiery plume").

Asbestos remained primarily a curiosity until the 1870's when—because of its flexibility, its tensile strength, its invulnerability to heat and acids and alkalis—it was first commercially mined. In the intervening years it has become a prized

ingredient in thousands of industrial products: floor tiles, filters in the manufacture of beer and other foodstuffs, electrical tape, padding of all sorts, paper binding, paints, etc.

Nearly four million tons are mined annually throughout the world; the United States, though it contributes little to the total production, is the world's largest consumer of the mineral. The Bureau of Mines says we used 758,271 tons in 1971. U.S. use of asbestos has grown 1,000-fold in this century, compared to an 80-fold growth for petroleum. Ninety-five per cent of this is chrysotile asbestos from the open-pit mines of Quebec, Canada, probably still the world's most productive source, although Russia is beginning to challenge Canada's production lead. Amphibole asbestos, most important for shipyard work, comes largely from South African mines. Rudolph Wild, the brilliant engineer whose work a generation ago persuaded the U.S. Navy that amphibole asbestos was superior for shipyard insulation and should be written into Navy contract specifications, paid for his involvement with the navy's support. He died of mesothelioma.—H. S.

were not expected to die? Eight should have died of lung cancer; 27 actually did. And 15 died of asbestosis. Two or three times as many died of cancer of the colon or cancer of the rectum or of the stomach as normally would be expected. Ten per cent died of asbestosis. "It was becoming monotonous—a hell of a monotony! So not only in the plant at Paterson but now in Knoxville, too, the same picture."

But while Selikoff and Hammon and their crowd did everything they could to uncover evidence of the disaster that was occurring in the asbestos industry, industry and Government remained unmoved.

The most impressive case of bureaucracy/industry indifference occurred at the Union Asbestos and Rubber Company factory in Tyler, Tex. This is the same outfit that had operated the factory in Paterson, N. J., before closing it in 1954. Union Asbestos later sold out to Pittsburgh Corning Corp. But under any name, the Tyler plant was still a foul place to work. Reputedly, in some areas of the plant the asbestos dust was so thick workers couldn't see across the room. Medical facilities consisted of two first-aid cabinets, one with a broken glass door admitting asbestos dust.

Beyond the factory itself, asbestos waste was dumped in nearby fields, sometimes to a depth of three feet. That children sometimes used as a playground. Bags in which asbestos had been shipped to the plant and which were still coated with asbestos dust were sold to local nurserymen who do a tremendous business in roses.

It is futile to guess at the number of nurserymen and customers who breathed an injurious amount of asbestos dust from the sacks, but the factory workers can be counted. Personnel records microfilmed by the Public Health Service show that between 1954 and 1972 at least 895 persons were employed there. They were working under deadly conditions and the U. S. Department of Labor and the Public Health Service were aware of these conditions at least as early as 1967. But they kept quiet.

Inspectors from the old Bureau of Occupational Safety and Health (BOSH) took air samples in 1967 that showed that the count of asbestos fibers was in some parts of the plant 60 times higher than today's officially declared safe

level of five fibers per cubic centimeter. These findings were withheld from the workers. In 1968, because the Tyler plant turned out asbestos insulation under a Navy contract, it was subjected to an inspection by the Labor Department under the Walsh-Healey Act. The company could have been heavily fined or even closed because of its health violations; instead, the Labor Department took no action at all.

That's the way things stood until 1970, when Congress passed the Occupational Safety and Health Act. With that act, BOSH was phased out and replaced by NIOSH—the National Institute of Safety and Health. With the change of initials came a change of bureaucrats and attitude, too. Among them were Dr. Joseph H. Wagoner, who became director of the Division of Field Studies and Clinical Investigations, and Dr. William M. Johnson, a recent product of the Harvard School of Public Health, who became Wagoner's assistant. They inherited a medical closet, a burial ground of old statistical bones heavily covered up by their predecessors.

"We even inherited about 2,000 air samples that hadn't been counted," Johnson recalls, "because the previous inspectors had been out collecting data without ever coming to grips with what they were doing. They would just keep rescheduling surveys, sometimes a second or third time around at a plant without really giving any thought to what it was really showing from a health standpoint."

Buried deep in the files he found Tyler, Tex. Why had Public Health Service and Labor Department officials covered it up? "I could say they were stupid, or that it was criminal negligence, or bureaucracy, or I could say they were afraid that if they did start getting concerned about this that their right of entry would have been cut off," says Johnson, "but the fact is, I don't know." All he did know immediately from the records he uncovered was that "the plant had no business operating."

But still the higher bureaucracy balked. "We transmitted our sampling results to the Labor Department," says Johnson, "and also followed up with a comprehensive report." The report showed that of a sampling of 17 men who had worked in the plant 10 years, eight had asbestosis. "The Department of Labor

would not honor our sample. They wanted to take their own for compliance. They went in—I don't remember the exact date. I believe it was November, 1971—and they took some samples and came up with citations. But they didn't mention asbestos in the citations and the citations only added up to \$210 in non-serious violations."

So much public ridicule and bad publicity greeted that punishment that Labor felt obliged to reinspect the factory and levy a \$6,950 fine. Two weeks later, claiming the fines were too great a burden to bear, Pittsburgh Corning decided to close the plant. Left behind were many Tyler residents who will eventually die of asbestos disease.

Are there other asbestos outfits still bumming away in the same condition that filled the lungs of Tyler? Some are trying to shape up. At the Johns-Manville plant in New Jersey, for example, company officials claim—and union officials agree—that in 90 percent of the factory the asbestos fiber count is already below the five-fibers per c.c. maximum set by Federal health standards. The dust is sucked up through hoods over the machines and captured in a central bag house. And at J.M.'s asbestos mill in Asbestos, Que., the bagging of the mineral is done entirely by machine; everything is enclosed; human hands don't touch it, and the dust is reportedly carried away in 70,000 separate suction operations. Johns-Manville is also "considering" hiring only non-smokers in some of its operations. "This corporation has a conscience 60 miles long," says J.M.'s Vice President Solon. "We've sent out instructions to clean up or close down, but I won't tell you the whole industry takes that attitude."

Dr. Johnson, despite the fact that he has only a restricted view of the industry, says he knows of "about a half-dozen plants" in which the asbestos levels are four to eight times what the Labor Department concedes is the maximum safe level. But actually, nobody knows how widespread the hazard is. Federal funding for inspections is at a rock-bottom minimum. And unions may be as lenient as industry or Government when it comes to informing workers of the risk. Officials of the United Cement, Lime and Gypsum workers, which has jurisdiction at a plant where asbestos dust concentration is said to be over 100 times the safe

level, say they have, if even lulled, to get their workers X-rayed yet, though a U. S. Bureau of Mines report exposed the danger last March.

As for the enforcement of health standards established under the Occupational Safety and Health Act, Federal officials have conceded in testimony before Congress that if they were going to enforce health standards properly, they would need about one hygienist per 35,000 workers.

So far as can be determined, the Labor Department at present has 60 hygienists—or about 1 per 1.2 million workers—to enforce all health standards, not just those relating to asbestos hazards.

Since there seems to be no great rush to enforce any asbestos health standards, it hardly matters whether the standards are the proper ones. But the manner in which they were decided may give some further indication of what the laboring man can expect in the way of protection from the Federal agencies and the industry.

At issue was whether to set the standards at a maximum permissible air content of two asbestos fibers (each longer than 5 microns) per cubic centimeter or five asbestos fibers. In either case, that's quite a bit of dust. A cubic centimeter is about the size of a small thistle of air, and a workman will inhale about six to eight million of them in a typical day. So the issue was whether to require the companies to maintain conditions which would prevent a worker from having to inhale more than 12 million to 16 million fibers of a certain length, or 30 million to 40 million fibers. With a substance that the Labor Department concedes "is causally related to asbestosis and cancer," the multimillion differences were obviously no trivial matter.

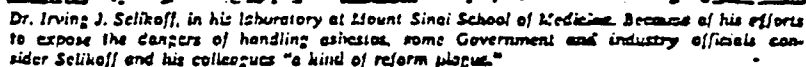
With what appeared to be an effort to get the best answer, Labor Secretary James Hodgson early in 1972 appointed an outside Advisory Committee on Asbestos Dust made up of scientists and engineers and labor officials. He also had the assistance of an inside advisory group of medical men and scientists put together especially for this problem by NIOSH.

Also from the outside he hired Arthur D. Little, Inc., a consulting firm, to come up with some advice on the economic feasibility of requiring industry to get rid of its asbestos dust. Arthur D. Little's panel of experts was made up of 13 executives

from the asbestos industry, 12 executives from the asbestos industry, and a health group of 11 doctors and technicians, all but two or three of whom reportedly have been "consultants" to the asbestos industry at some time in their careers.

The Advisory Committee on Asbestos Dust told Hodgson he should drop the standard to two fibers. NIOSH's panel agreed that two fibers was not too low. But Arthur D. Little concluded that five fibers was perfectly safe and that dropping the standard to two fibers would cost industry far too much money. In addition, four days of hearings were held at the Labor Department offices in Washington, with industry contending that Solikoff is right up to a point, but that he goes too far and interprets his findings too wildly. Matt Swetonic, Secretary of the Asbestos Information Service, a New York health data distribution center funded by the industry, says, "There has been considerable controversy with Solikoff not so much on the effects of asbestos, but on the best means to control it and what sort of levels are necessary to control various asbestos diseases." Industry people, says Swetonic, believe that the perils of the insulation workers—who face periodic massive doses of asbestos-laden air—are too often confused with what industry contends are the manageable low-level exposures of the asbestos manufacturing factories.

In the end, Hodgson, insisting that he had arrived at his decision by an independent appraisal of all evidence, rebuffed his own advisory group and said that a five-fiber standard would be in effect for the next four years. (Coincidentally, Johns-Manville Corporation the same day notified its stockholders that the ruling would not hurt their sales and earnings.) Solikoff points out that this ruling was designed to set a safety level for asbestosis, not for cancer, and that in any case, qualified scientists simply cannot be sure enough about the nature of asbestos-related disease to say where the level should be fixed. In this light, he argues, Hodgson's ruling was at best cautious. "There's a lot of published evidence that in two fibers per c.c. mesothelioma occurs, lung cancer occurs, asbestosis occurs. An industrial hygiene practice in our country has been that when there is a serious risk, you build in a big safety factor. But what



By continuing the five-fiber standard for another four years—a period that will probably set 100,000 or so new men enter asbestos-related industries—Selikoff predicts the Labor Department has doomed 20,000 to unnecessary lung-cancer deaths, 7,000 to unnecessary mesothelioma deaths, 7,000 to unnecessary asbestosis deaths as well as deaths of other consumers. And that's not counting combination effects—asbestos plus tobacco smoke, asbestos plus the coal-tar pitch workers like roofers must handle. All in all, Selikoff predicts that "by a stroke of the pen, 50,000 more lives were thrown down the drain."

Meanwhile, Selikoff's flying wedge continues relentlessly down the field. Not long ago, Selikoff was having some dry-wall construction work done in his office. He sat there watching the workmen and all of a sudden it occurred to him: "I said to myself, well, hell, if these guys have been putting up that stuff—watch them sparkle it and send it down so you can't see the joint—they're not immune. I had enough background knowledge to know that the taping compound has asbestos in it. So I got to think with the painter's union, and their

But of course, as in any scientific confrontation there is always the possibility of mislabelation. Perhaps Selfhoff and Hammond and their colleagues at Mt. Sinai Hospital and in the American Cancer Society shouldn't frighten shipyard workers and painters and pipelitters and insulation workers and the rest. Perhaps Assistant Labor Secretary George C. Gumbler—who once defended the small firms levied against corporate health violations by saying that "we are not in the fund-raising business"—was correct to upbraid Selfhoff for having chosen as Gumbler judged it, "to over dramatize the matter." It is not, however, as argument that evades resolution. Those who have worked around others for any length of time will, sooner or later, find out who was right. **LE**

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THE FLINTKOTE COMPANY
EAST RUTHERFORD, N. J.

Inter-Office Correspondence

DATE March 13, 1973

TO MESSRS: FROM M.L. Johnson SUBJECT: Asbestos

E. A. Opila Chicago Heights (TT)
W. Mortonson Rutherford
L. Sands Chicago Heights (TT)

L. Zizic Chicago Heights (TT)
R. Lozinak Chicago Heights (TT)
N. Davis Chillicothe
J. Guepet Rutherford Plant
E. Fletcher Pioneer
J. Barrois New Orleans

F. J. Bartlett Rutherford
W. Dickson Rutherford

S. Spike Chicago Heights (TT)

J. Sweeney Pioneer
A. Anticich New Orleans
W. Inversetti Chicago Heights (TT)

SAW

More information from the AIA.

M. L. Johnson

SM
Enc.

B.B.

PLAINTIFFS
EXHIBIT
30
HOOKER
4-12-81

Asbestos Information Association/North America

22 East 40th Street
New York, N. Y. 10016
212-689-3378

cc: M. Carpenter
M. Johnson
S. Weiss
H. Taylor
R. Ingram
W. Harvey

February 27, 1973

2/3

TWO IMPORTANT ITEMS ON AIA/NA PUBLIC RELATIONS ACTIVITIES

1. On the CBS-TV national evening news on Friday, February 23, Walter Cronkite discussed asbestos-health in a brief 30 second item on Dr. Selikoff's appearance that day at a Senate Sub-Committee on the Environment hearing on the proposed Toxic Substances Control Act (a detailed analysis of this Act and its potential effect on the asbestos industry will be distributed in the near future).

According to Cronkite, Dr. Selikoff predicted in his testimony that one million occupationally exposed Americans will die of asbestos-related disease before the end of the century, and that the general public is in some danger because of the use of asbestos-containing products, such as asbestos-cellulose filter pads used for the filtration of various beverages and drugs. The AIA was quoted to the effect that "the industry is trying to clean itself up" and that "Dr. Selikoff's death figures are too high." This last quote was delivered by Cronkite with an obvious sneer on his face.

The manner in which this particular TV spot was put together is of considerable interest because it clearly demonstrates the approach which the news media is taking with regard to asbestos-health. Late Friday afternoon, the Association was contacted by CBS for its comments on Selikoff's testimony. Since we had already received a report from Washington on the hearings, we knew roughly the content of his presentation (Selikoff spoke from notes and did not submit written comments). The girl from CBS asked whether the industry had anything to say concerning Selikoff's prediction that "one million Americans would die from asbestos-related disease by the end of the century." I told her that I had never heard Selikoff use such a high figure before, and I suggested that she contact Selikoff for clarification. She agreed to do this.

I then called Washington and learned that the one million figure used by Selikoff was in reference to the number of people occupationally exposed to asbestos, not killed by it! The number of deaths predicted by Selikoff was approximately one-third of those exposed. I then called CBS back and the girl admitted that Selikoff had told her the same thing. Nevertheless, on the show, Cronkite used the original "one million deaths" figure which Selikoff denied to CBS ever having said.

No finer example exists of the manner in which the news media distorts and exaggerates items of this nature to enhance their shock value. It's the old journalistic dictum in action again: Never let the facts get in the way of a good story.

2. On Sunday, February 25, the New York Times Magazine ran the shortened version of the AIA/NA Letter to the Editor on the Sherrill article. As we suspected, the delay in printing the letter was in order to give Sherrill time to draft a reply defending himself against our charges. A copy of the AIA letter and Sherrill's reply is attached. You will note that in lieu of answering the five points made in the AIA letter, Sherrill opted to expend most of his steam in a number of verbalistic swipes at the Association and at me personally. The reason, of course, why he adopted this approach was because he had no defense to make against our charges.

Sincerely,

Matt

Matthew M. Swetonic
Executive Secretary

Enclosure

The hazards of safety

The Editor:

Robert Sherrill's one-sided sensationalized article, "Asbestos, the savior of lives, has a deadly side" (Jan. 21), contained many errors of fact and interpretation. The following should help clarify a number of his more blatant omissions and distortions.

(1) Because of the long latent period of asbestos-related disease, the disease was not found today is not an indication of present conditions but is instead a result of conditions existing decades ago, at a time when neither the medical profession, government nor the industry knew very much about the health effects of asbestos and knew less about the proper means for their control.

(2) The isolated incidents cited as proof of industry indifference and irresponsibility are not indicative of the overall industry response to this problem. In the past decade alone, the asbestos manufacturing industry has spent approximately \$110-million on

dust control and expects to spend an additional \$95-million over the next few years to achieve complete compliance with the final Department of Labor standards.

(3) No mention was made whatever of the highly respected and extensive medical research which has been sponsored, co-sponsored or co-financed in by the industry through the years, and which has contributed significantly to our knowledge of the biological effects of asbestos. In fact, the Institute of Occupational and Environmental Health, sponsored by the Asbestos Mining Association, is one of the world's largest nongovernmental sources of funds for asbestos-health research.

(4) While Dr. Irving J. Selikoff has certainly made a valuable contribution to our knowledge of asbestos-related disease, it is unfortunate that Dr. Sherrill did not discuss the situation with any of the other top authorities in the field since many of them do not believe that many of Dr. Selikoff's recent frightening predictions are justified by printed medical data.

(5) The Labor Department decision to delay adoption of the two-fiber standard for an additional two years beyond the two-year implementation period recommended by the National Institute of Safety and Health and the Advisory Committee was approved by Dr. Marcus M. Key, Director of NIOSH, prior to the publication of the standards. Furthermore, Dr. Key is in total disagreement with Dr. Selikoff's prediction that half of all those entering the asbestos industry within the next four years will die because of the delay in going to two fibers.

We believe that the above facts demonstrate quite clearly the incomplete and distorted manner in which Mr. Sherrill presented the asbestos-health situation in his article.

MATTHEW M. SWETONIC,
Executive Secretary,
Asbestos Information
Association

New York

Mr. Sherrill replies:

Even if one is kind enough to accept Mr. Swetonic's figures regarding the amount spent on dust control, the \$110-million comes to less than 2 per cent of the value of asbestos products sold in

the United States during the past 10 years, according to the U. S. Bureau of Census. Considering the health disaster that the dust has created, I don't call a 2 per cent outlay exactly overwhelming.

But before taking Mr. Swetonic's complaints too seriously, one should bear in mind that the Asbestos Information Association is funded by 19 of the nation's largest miners, manufacturers and importers of asbestos and asbestos-containing products, and the association pays Mr. Swetonic to respond almost by rote. For example, after a recent Wall Street Journal article on the hazards of asbestos, he complained, saying it was "incomplete, erroneous, sensationalized and distorted." Mr. Swetonic's defense arsenal is limited to a few standard blunderbusses.

But when he is not rattling off this non-speak as an industry flack, he can be quite sensible about the problem. In my taped interview with him, I asked, "In general, how does the industry feel about Dr. Selikoff's conclusions relating to the hazards of asbestos?" Did he reply that Selikoff was all wet? No. That Selikoff's mortality figures were cockeyed? No. Mr. Swetonic replied, "The health experience of these people [asbestos workers] has, you know, been a terrible thing and is obviously, you know, quite bad, and I think that when this information first started to come out of Dr. Selikoff's laboratory it was quite shocking to industry, obviously so."

I further asked Mr. Swetonic if he thought the problem was limited to asbestos workers. "No," he said, "I don't think I would go that far. There have been fairly substantial increases of asbestos-related diseases among manufacturing workers, especially textile workers [whose work] has been notoriously dusty. . . ."

As for the complaint that I do not quote enough doctors who are sympathetic with the asbestos industry, well, let's turn to one of Johns-Manville Corp.'s top health consultants, Dr. George W. Wright, for further evidence of the industry's slowness in meeting the problem. In the American Review of Respiratory Disease, October, 1969, Dr. Wright acknowledged that although as early as 1930 scientists "demonstrated that asbestos posed a major threat to the health of workers in the asbestos textile trade" and although subsequent research linked the hazard to other workers, "substantial numbers of persons exposed to asbestos in their occupation have never come under a protective occupational hygiene program."

This is still true, and it is the fault not only of the asbestos industry but, as I made clear in my article, also the fault of a lethargic, stupid element of organized labor and most especially of a

Mr. C. H. Baranowski
Rutherford

2
Jul
Asbestos
OSHA Requirements
Asbestos Caution in Joint Treat-
ment Products

Mr. T. H. Parko, Jr.
White Plains

November 5, 1973

Connie:

In reply to your memorandum of October 24, 1973 concerning OSHA requirements in labeling asbestos joint treatment products, we have checked with Insurance and they feel, and we concur, that we should advise all suppliers to affix the required cautions to our bags. While we may be exempted under the Regulation pertaining to bonding, the tests have not apparently been run to justify such exemption, and it would be much the safer course at this time to affix both cautions on all such products bearing our name.

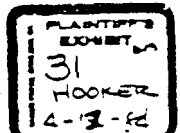
TEP:pk

cc: Messrs. C. Abbey - Rutherford
J. Machemer - W.P.
S. Weiss - W.P.

RECEIVED

NOV 6 1973

INSURANCE DEPT.



January 22, 1974

Mr. W. E. Newton, Packaging Manager
Gold Bond Building Products
Division of National Gypsum Company
325 Delaware Avenue
Buffalo, New York 14202

Dear Bill:

Confirming our recent phone conversation please proceed to affix both the Asbestos "Caution" and Dust "Hazard" labels on the containers of Ready Mixed Joint Compound your Company supplies Flintkote.

On the five gallon pails you advised that the copy will be silk screened on the pail as the pails are manufactured.

We will have the copy printed on the one gallon labels we furnish Matteson when our current stock of these labels is depleted.

In the meantime, we would appreciate the "Caution" and "Hazard" stamped on the cans you ship to Flintkote.

Thank you for your assistance and guidance in this matter.

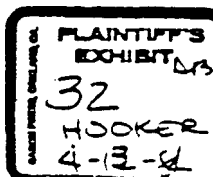
Very truly yours,

THE FLINTKOTE COMPANY

CHB

C. H. Baranowski
Assistant Merchandise Manager
Gypsum Products

CHB/af



THE FLINTKOTE COMPANY

Asb. Work Practices
Inter-Office Correspondence

DATE

FEBRUARY 19, 1974

TO MR. M.L. JOHNSON FROM W.H. MORTONSON SUBJECT: ASBESTOS STANDARDS
RUTHERFORD RUTHERFORD

I have attached the minutes of the AIA/NA Technical Committee Meeting which was held in Newark, New Jersey on February 6, 1974. The minutes of a previous meeting between three members of the AIA/NA Technical Committee and OSHA are also attached and establish the reason for the February 6th meeting.

The need to write drafts of work practices as quickly as possible was determined to be our most important assignment. OSHA intends to use work practices as a practical method for their inspectors to determine compliance during plant inspections. If Industry doesn't do the job, OSHA will have it done by outside sources.

It was agreed that the work practices could best be done by individuals from the various industries which will be affected. Assignments were made on this basis as indicated in Ed Fenner's minutes. We are expected to provide assistance in the areas of asbestos-cement pipe and vinyl asbestos floor tile. Someone from Ravenna should contact John McGinley to help on pipe, and I have already spoken to Ed Opila about offering Bill Fassuliotis his aid for tile. It should be noted that the time schedule is very tight for first drafts but this is at the insistence of the OSHA officials.

During the course of the Committee Meeting, several items of interest were discussed which require our noting or taking action:

1. AIA/NA wishes a response to Ed Fenner on our company position regarding the confidentiality of medical exams. The unions are pushing to have the exams kept confidential and for the doctor to only advise Management whether or not the employee can continue working. AIA will take whatever stand the member companies want based on the responses.
2. On the matter of monitoring fiber counts a number of aspects of this function were discussed with the following consensus agreement on practices.
 - a. Pumps should be calibrated for flow rate at least once a year. J-M uses a "wet displacement method". We will find out about this method.
 - b. Samples, once prepared for microscopic exam, are only good for 3 or 4 days so sample retention has little value.

(continued)



THE FLINTKOTE COMPANY

Inter-Office Correspondence

DATE

FEBRUARY 19, 1974

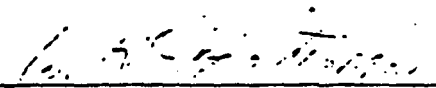
TO MR. M.L. JOHNSON
RUTHERFORD

FROM W.H. MORTONSON
RUTHERFORD

SUBJECT: ASBESTOS STANDARDS

PAGE 2

- c. Frequency of testing is twice a year if previous tests indicate operation occasionally exceeds TLV. Once a year if operation is under TLV.
- d. Most companies have been testing for 90-minute duration or a complete job cycle, whichever is longer but are now tending toward 4-hour tests wherever practical for TWA values. Peak value tests are run according to the particular operation being measured.
- e. Several companies (Nicolet and J-M), who have considerable waste disposal problems, have been investigating pelletizing the asbestos dusts and waste with encouraging results. Ferro-Tech (sp ?) was one company mentioned as offering equipment for pelletizing.
- f. Some very high fiber counts have been obtained when dry-wall joint cement is sanded. It was felt that asbestos would either have to be eliminated from the product or the cements labelled as "hazardous".


W.H. Mortonson

WEM:pb
Attachs.

cc: Mr. M.C. Carpenter - White Plains (Attachs.)
Mr. E.A. Opila - Chicago Heights (TT) (Attachs.)
Mr. S. Weiss - White Plains (Attachs.)

THE FLINTKOTE COMPANY

FLOORING AND INDUSTRIAL PRODUCTS DIVISION
1232 MCKINLEY AVENUE
CHICAGO HEIGHTS, ILLINOIS 60411

June 3, 1974

Mr. J. Brierley
Toronto
Mr. E. J. Fletcher
Los Angeles
Mr. O. B. Wildny
New Orleans
Mr. M. S. Davis
Chillicothe

Mr. E. A. Opila
Chicago Heights

EPA

Attached are two copies of booklet that is being passed out to each employee at Chicago Heights along with the Acceptance Form.

This booklet has been prepared in compliance with the Illinois Environmental Protection Agency as being the proper information that covers the hazards of asbestos.

If you have need of these forms, please advise Mr. L. Sands.

E. A. Opila
E. A. Opila

EAO:ph

Attach

cc: Mr. M. L. Johnson - Rutherford
Mr. L. J. Sands - Chicago Heights

THIS COPY FOR

ASBESTOS
AND
YOUR
HEALTH

THE FLINTKOTE COMPANY
FLOORING & INDUSTRIAL PRODUCTS DIVISION
1232 MCKINLEY AVENUE
CHICAGO HEIGHTS, ILLINOIS

During and in the course of your
employment, you may be exposed to
Airborne Concentrations of Asbestos.

Following are some questions commonly
asked about asbestos and health.
Answers are based on medical evidence
and industry experience.

Q. WHAT IS ASBESTOS?

A. The term "asbestos" is a name given to a variety of natural occurring mixed silicates of a virtually indestructible character.

Q. WHO USES ASBESTOS?

A. Practically everyone in a sense. There are about 3,000 different products in daily use worldwide that utilize in some way the properties of asbestos.

Q. WHAT ARE THE OCCUPATIONAL HEALTH HAZARDS OF ASBESTOS?

A. The inhalation of airborne asbestos fibers can increase the risk of developing certain diseases of the lungs within 7 to 40 years.

Q. WHAT DISEASES ARE ASSOCIATED WITH ASBESTOS FIBER?

A. Asbestosis; cancers of the lung, stomach, larynx; and mesotheliomas are known to result from exposure to asbestos.

Q. WHAT IS ASBESTOSIS?

A. Asbestosis is a lung disease characterized by lung scarring. It is neither malignant nor necessarily fatal. Following continued exposure to high concentrations of dust, asbestosis may develop fully in 7 to 9 years and may cause death as early as 13 years after onset of exposure.

Q. WHAT IS MESOTHELIOMA?

A. Mesothelioma is an extremely rare cancer of the lining of the chest (pleura) or the abdominal cavity (peritoneum). It is found almost exclusively among those with occupational asbestos exposure.

Q. WHAT EFFECT DOES SMOKING HAVE?

A. Asbestos industry workers with a history of smoking have a lung cancer mortality rate eight times greater than expected, with age and smoking habits taken into account.

Q. WHAT CAN BE DONE TO PREVENT
ASBESTOS RELATED DISEASES?

A. Reduction of asbestos dust exposure is at present the only known method of preventing disease among asbestos industry workers. Experience has shown that when dust levels are low, risk to employees and the incidence of asbestos related disease is reduced.

Q. HOW ARE ASBESTOS DUST EXPOSURES
MAINTAINED AT LOW LEVELS?

A. Basically, the requirements of our dust control program is three sided:

1. Processing areas and machinery are equipped with dust suppression and collection devices.
2. Detailed asbestos handling procedures have been implemented to keep asbestos concentrations to a minimum.
3. The in-plant air is continually monitored to assure that OSHA Asbestos Standards are being met.

Q. HOW ELSE IS MY HEALTH BEING PROTECTED?

A. Employees exposed to asbestos concentrations are required to wear approved respirators during operations which generate asbestos dust. These same employees are given annual examinations. In addition, vacuum cleaners are provided for all employees to use in order that asbestos is not taken home on their clothing.

Q. WHAT ELSE CAN BE DONE TO MAINTAIN A SAFE WORKING ENVIRONMENT?

A. As an employee, it is your duty to follow safe work practices at all times. Never take shortcuts that may endanger your health and that of others on the job.

A. If you see a possible hazard that your employer may have overlooked, bring it to his attention.

A. If you can suggest more efficient and safer work methods, do so.

If you have questions concerning the contents of this booklet or desire additional sources of information, contact your Supervisor.

1. Ill. Pollution Control Board
Opinion #PCB R71-16
2. Questions and Answers on Asbestos
& Health J-M #EA-10P-3711
3. What every employee should know
about Asbestos J-M #EA-13L-3711
4. Asbestos and Health -
AIA/NA # 103D37

A S B E S T O S

A N D

Y O U R

H E A L T H

THE FLINTKOTE COMPANY

FLOORING & INDUSTRIAL PRODUCTS DIVISION

1232 McKINLEY AVENUE

CHICAGO HEIGHTS, ILLINOIS

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3. What every employee should know
about Asbestos J-M #EA-13L-3711
4. Asbestos and Health -
AIA/NA # 103D37

POTENTIAL HEALTH
HAZARD INSTRUCTIONS

RULE 671 (b) OF THE ILLINOIS POLLUTION CONTROL BOARD REGULATION R71-16 STATES THAT ALL EMPLOYEES MUST BE INSTRUCTED ON THE POTENTIAL HEALTH HAZARDS OF EXPOSURE TO ASBESTOS FIBER. IN COMPLIANCE WITH THIS RULE I HAVE READ THE ACCOMPANYING BOOKLET ENTITLED "ASBESTOS AND YOUR HEALTH." ANY QUESTIONS I HAD CONCERNING THE CONTENTS OF THIS BOOKLET HAVE BEEN ADEQUATELY ANSWERED AND I NOW UNDERSTAND THE POTENTIAL HEALTH HAZARDS OF EXPOSURE TO ASBESTOS FIBER.

SIGNED: _____ CLOCK NO.: _____
EMPLOYEE

SIGNED: _____ DATE: _____
SUPERVISOR

THE FLINTKOTE COMPANY
FLOORING & INDUSTRIAL PRODUCTS DIVISION
1232 MCKINLEY AVENUE
CHICAGO HEIGHTS, ILLINOIS

THE FLINTKOTE COMPANY
EAST RUTHERFORD, N. J.

Inter-Office Correspondence

DATE JULY 8, 1974

TO MR. M. C. CARPENTER FROM A. R. HOOKER, JR. SUBJECT: ASBESTOS INFORMATION
WHITE PLAINS E. RUTHERFORD ASSOCIATION

Monte, I am enclosing, for you and all those receiving a copy of this correspondence, copies of the minutes of the AIA board of directors meeting held on June 20 in Washington, D. C.

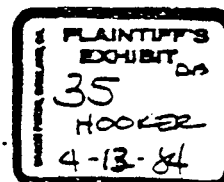
In particular, Monte, I would like you to refer to Page 5 - Priorities. This is the best explanation of the interests and activities of the Asbestos Information Association that I have seen. It is my opinion, that the annual dues of \$8,475.52 are well worth the expenditure based on the information we get through the association on legislation and regulations that concern Asbestos Fiber, as well as the opportunity to have input through the association on how regulations should be written and/or amended.

A. R. Hooker, Jr.
(Signature)

A. R. Hooker, Jr.

ARE:dk
Encl.

cc: Messrs. M. L. Johnson - E. Rutherford
R. Rabatsky - Ravenna, Ohio
E. Taylor - Akron, Ohio
W. Harvey - Pioneer, Los Angeles
S. Weiss - White Plains





ASBESTOS INFORMATION ASSOCIATION

1660 L Street, N.W. / Washington, D.C. 20036 / (202) 223-4885

BOARD OF DIRECTORS MEETING

June 20, 1974

Army & Navy Club

Washington, D. C.

A meeting of the Board of Directors was held pursuant to notice, June 20, 1974 at the Army & Navy Club, Washington, D. C..

The following Directors were present:

James W. Armstrong
George Barge
W. H. Beasley
E. C. Bratt
C. Nelson Coddling
Thomas A. Dougherty
Bill Fassuliotis
A. H. Fay
A. R. Hooker
John H. Marsh
C. G. Morgan
Kurt Schwarz
Martin J. Sendeki
F. J. Solon, Jr.
William C. Thurber
J. K. Whittaker

Bendix Corporation
Atlas Asbestos Company
Cement Asbestos Products Company
Southern Asbestos Company
Jim Walter Research Corporation
Certain-teed Products Corporation
GAF Corporation
National Gypsum Company
The Flintkote Company
Raybestos-Manhattan, Inc.
North American Asbestos Corporation
Supradur Manufacturing Corporation
Congoleum Industries, Inc.
Johns-Manville Corporation
Union Carbide Corporation
Nicolet Industries, Inc.

Also present: R. H. Mereness, Executive Director, AIA/NA; Carol W. Grant, Administrative Assistant, AIA/NA; Jill Cummings, Cadwalader, Wickersham & Taft, Legal Counsel; Terry Seeley and Sue Simons, Government Research Corporation; Richard T. Davis, C.P.A., Frank . Frantz & Co., Accountants.

Guests: Fred Workman, Nicolet Industries, Inc.; Russell Todd, Atlas Asbestos Company; William A. MacLaurin, Bendix Corporation; Frank Zimmerman, National Gypsum Company.

Minutes

Mr. Marsh, president, called the meeting to order at 9:15 A.M.. On motion, the Minutes of the preceding meeting, March 20, were

SEPTEMBER 23, 1974

MR. M.L. JOHNSON
RUTHERFORD

W.H. MORTONSON
RUTHERFORD

AIA TECHNICAL
COMMITTEE

The attached minutes of the recent meeting of the AIA Technical Committee are being distributed to keep all interested parties advised of the actions being taken.

I have already called Pioneer's attention to the California Senate Bill #2419 (Item 2a) in case they had not been aware of it. We will be developing some fiber count data here at Rutherford later this week which will be submitted to the Committee and also to Pioneer. We plan to spray a drum for Fiber Roof Coating with airless and air atomizing guns and measure the fibers in the breathing zone of the operator.

You have seen my letter to Ed Fenner giving data from our tile plants which supports our feeling that the handling of finished tiles does not produce airborne fibers of a level which would be considered hazardous. If the Committee agrees with me, no further work will be required on this assignment.

W. H. MORTONSON

W.H. Mortonson

WHM:pb
Attach.

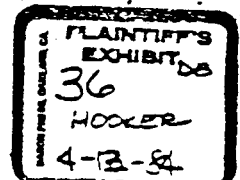
cc: Mr. W. Harvey - Los Angeles (Pioneer) (Attach.)
Mr. A.R. Hooker, Jr. - Rutherford (Attach.)
Mr. E.A. Opila - Chicago Heights (TT) (Attach.)
Mr. B. Rabitsky - Akron (Attach.)
Mr. S. Weiss - White Plains (Attach.)

RECEIVED

SEP 24 1974

SR 40.16-1

Request 34





ASBESTOS INFORMATION ASSOCIATION

1660 L Street, N.W. / Washington, D.C. 20036 / (202) 223-4885

September 17, 1974

TO: AIA STANDARDS AND TECHNICAL COMMITTEE

COMMITTEE MEETING
SEPTEMBER 10, 1974
WASHINGTON, D.C.

A meeting of the full Standards and Technical Committee was held in the Army-Navy Club in Washington, D.C. on September 10, 1974.

Items discussed are listed on an attached copy of the agenda. Action taken on these items is as follows:

- (1) After thorough review of the AIA/NA submittal to OSHA it was the Committee's opinion that certain items in this submittal could be revised for clarification. R. H. Mereness suggested that before written clarification was submitted, it be discussed with Harry Gilbert, OSHA Project Officer for the Asbestos Standard. Mr. Mereness arranged for Mr. Gilbert to join our meeting after lunch. After review of all items in our recommended revisions with Mr. Gilbert, it was decided that it would not be necessary for the AIA to submit written clarification, since Mr. Gilbert understood our aims.

Mr. Gilbert spoke at the two-day industry-government conference sponsored by the AIA and during his presentation mentioned OSHA's timetable. They expect that a revised draft of the Standard will be on the Solicitor General's desk for review by November 1, 1974. The proposed Standard after review will be published in the Federal Register in early 1975. This will be followed by time for written comments and a public hearing with verbal testimony. They anticipate that the final revised Standard will be promulgated in June 1975.

- (2a) California Senate Bill 2419 banning the spray of asbestos-containing material after July 1, 1976 was proposed by California State Senator Marks. Apparently, a number of letters have been addressed to Senator Marks' office commenting that there are certain asbestos-containing materials that can be sprayed on buildings and structures without releasing, from a health standpoint, significant quantities of asbestos fiber. Senator Marks' office indicated that if data to prove this contention were submitted to his office, he would consider amendments exempting these materials from the regulation.

Johns-Manville and Union Carbide will arrange through their respective fiber customers to obtain data on concentrations of airborne fibers generated during certain specific spraying operations. This data and suggested wording for an amendment will be submitted by AIA to Senator Marks' office in December 1974.

- (2b) It was agreed that H. B. Rhodes and E. M. Fenner would comment to R. H. Mereness on significant omissions in the California State Department of Health paper "Asbestos in the California Environment". Mr. Mereness, as Executive Director of AIA, would forward these comments to the author of the paper.
- (2c) No action was taken during the Committee meeting.
- (3) A major portion of the meeting was devoted to a discussion of preparation of work practices documents for AIA/NA member company customers who purchase asbestos-containing products. Decisions as to work practices and assignment of one or more members of the Committee to be responsible follows.

All work practices will include description of the pertinent part of the OSHA Asbestos Standard and recommended procedures for handling, fabrication and installation of the particular material involved.

- (1) Friction materials - (Weaver, Clark)
- (2) Asbestos textiles - (Moody, Weaver)
- (3) Asbestos containing sealing materials - (Dixit)
- (4) Asbestos reinforced molding compound - (Weaver)
- (5) Asbestos reinforced molded plastics - (Weaver)

AIA STANDARDS AND TECHNICAL COMMITTEE
PAGE 3
SEPTEMBER 17, 1974

- (6) Asbestos-cement pipe - (ACPPA*, McGinley)
- (7) Joint treatment compounds - (GDCI** , Rhodes)
- (8) Asbestos papers - (Fenner, Wilson)
- (9) Asbestos containing sheet products - (Fenner)
- (10) Asbestos cement shingles - (Zimmerman)

*Asbestos Cement Pipe Producers Association
**Gypsum Dry Wall Contractors International

Additionally, W. H. Mortonson is to investigate the necessity for a work practice relating to vinyl asbestos floor tile. This investigation to be done in conjunction with the Reinforced Tile Institute.

By copy of these meeting minutes, Fraser Morton is asked to comment on the necessity for a work practice related to flooring roll goods.

The timetable for preparation of these documents was discussed. It was agreed by the Committee members that a rough draft of their document could be mailed to E. M. Fenner by October 18, 1974. E. M. Fenner would circulate, as necessary, for comment.

A meeting of the full Committee was then scheduled for Thursday, November 14 at 9:00 A.M. at a motel in the vicinity of O'Hare Airport. By copy of this memo, R. H. Mereness is requested to arrange for a meeting room, preferably at the O'Hare Inn, and a block of eight single rooms for the night of Wednesday, November 13.

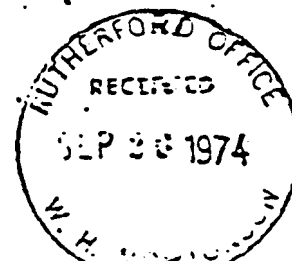


E. M. Fenner

EMF/emr

Attach.

cc: R. H. Mereness
F. J. Solon, Jr.



THE FLINTKOTE COMPANY
EAST RUTHERFORD, N. J.

Inter-Office Correspondence

MAY 4, 1976

TO: MR. J. C. HARNESSE - RUTHERFORD
MR. W. HARVEY - LOS ANGELES
MR. R. RABATSKY - RAVENNA

FROM: A. R. HOOKER, JR. - RUTHERFORD

SUBJECT: OSEA ASBESTOS REGULATION
JOHNS-MANVILLE REPORT

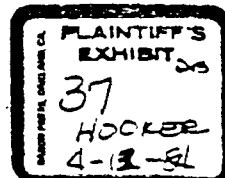
I have just received, per J-M's letter to me of April 22, a copy of Johns-Manville comment on the proposed new occupational health and safety asbestos regulation limiting the asbestos count to half a fiber per cc.

This report I would estimate has some 150 pages. Because of the voluminous nature, I am excerpting and making copies of the covering page, the index page for what I feel is the most pertinent part of the report and copies of the summary and conclusions, amounting to some nine pages.

I will keep the full report on file here in Rutherford. It is my suggestion if any of you want to receive a copy of the full report, that you address such a request directly to Dick Carter, Manager of Government affairs at J-M in Denver.

ARE:dk
Attachs.

cc: Mr. E. R. Stainback - White Plains
Mr. J. Schmitt - White Plains
Mr. E. A. Opila - Chicago Heights
Mr. D. Poirier - Thetford Mines
Mr. W. E. Mortenson - Rutherford



Comments of
Johns-Manville Corporation
with respect to
Notice of Proposed Rulemaking
Occupational Exposure to Asbestos
(Federal Register • October 9, 1975)

To:
Occupational Safety and Health Administration
U.S. Department of Labor

April 1976

LIST OF FIGURES
PROCESS DESCRIPTION FLOW CHARTS

<u>Figure No.</u>	<u>Operation</u>	<u>Page</u>
1	Asbestos Cement Pipe	16
2	Asbestos Containing Boards	26
3	Roofing Roof Coatings and Sealants	31
4	Sealing Components Sheet Gaskets	36
5	Mechanical Packings (Textiles)	37
6	Building Systems Asbestos Cement Sheet	43
7	ACE (extruded) Panels	44
8	Paper	46

SUMMARY AND CONCLUSIONS

Johns-Manville has for many years installed mechanical exhaust ventilation systems, modified process equipment, and introduced new work practices in its plants manufacturing asbestos-containing products in an effort to reduce the airborne concentrations of asbestos fiber and other materials to which its employees are exposed. These procedures have been continuously upgraded and improved as the "state of the art" of dust control advanced.

Until December 1971, the Threshold Limit Value or exposure limit for asbestos dust was 5 million particles per cubic foot. Dust control mechanisms which were installed prior to December 1971 were not designed solely to achieve 5 mppcf, but were designed to attain the lowest possible airborne concentration of asbestos dust in the workplace - with the goal wherever feasible, of reducing exposures below 5 mppcf in our asbestos-using operations. We employed what we believed, at the time of installation, to be the best available technology.

Surveys performed by our industrial hygiene laboratories - using the impinger technique - revealed that by 1970, we were close to achieving our goal; approximately 90% of our monitored asbestos-using work stations were under the then existing TLV. This accomplishment required a concerted effort by plant personnel and by our General Plant Engineering and Environmental Control Departments. In addition to the design and installation of the best available dust control equipment, these efforts included the development of improved processes and techniques and utilized the expenditure of about \$12,000,000 during the period 1950 to 1970. Efforts to control airborne concentrations of asbestos fiber actually were instituted well before 1950. Installation of dust control equipment dates at least as far back as the mid 1930's. No records presently exist as to the specific airborne concentrations of asbestos fiber present or the total expenditure for dust control made during this period.

In December 1971, OSHA promulgated its emergency standard for exposure to asbestos dust. This standard specified an 8-hour time-weighted average exposure limit of 5 fibers per cubic centimeter, as determined by the membrane filter/personal air sampler technique. Johns-Manville, on the recommendation of the Bureau of Occupational Safety and Health, had initiated this type of monitoring technique in our plants during 1969. At the time the emergency standard went into effect, we had completed the monitoring of our asbestos-using work stations

only because best available technology was successful at these stations and was not successful to the same extent in other process steps in our facilities where the same control efforts were made.

A review of our industrial hygiene data for all of our asbestos industry segments indicates that, in general, the process steps with major problems, that is, process steps with TWA fiber counts above 0.5 f/cc, are concentrated in two areas:

1. Fiber introduction
 - a. Bag opening, emptying and disposal
 - b. Fiber handling
2. Finishing
 - a. Machining
 - b. Surface sanding

These are not the only problem areas that will need study and development effort in order to reduce exposure levels. These two process steps are major operations, common to many asbestos-product manufacturing facilities and will require the greatest attention from Johns-Manville.

Our study of these major problem areas has convinced us that entirely new processes, methods, and equipment must be developed by trial and error, with no guarantees that the proposed Permissible Exposure Limits can, in fact, be met. It is impossible to predict now the cost and implementation time for these developments. We don't know what will be needed to achieve compliance.

CONCLUSIONS:

1. DESPITE THE MAXIMUM FEASIBLE EFFORTS OF MANY YEARS EMPLOYING BEST AVAILABLE TECHNOLOGY, WE HAVE NOT BEEN SUCCESSFUL IN REDUCING EMPLOYEE EXPOSURES TO AIRBORNE CONCENTRATIONS OF ASBESTOS TO BELOW 2 F/CC AT ALL WORK STATIONS.
2. BEST AVAILABLE TECHNOLOGY CAN NOT ACHIEVE COMPLIANCE WITH THE PROPOSED TWA EXPOSURE LIMIT OF 0.5 F/CC. EQUIPMENT, PROCESSES AND WORK PRACTICES, UNAVAILABLE UNDER EXISTING TECHNOLOGY, WILL HAVE TO BE DEVELOPED THROUGH THE TRIAL AND ERROR METHOD - WITH NO ASSURANCE OF SUCCESS.
3. BECAUSE OF MANY UNKNOWN FACTORS, IT IS IMPOSSIBLE NOW TO PREDICT THE COST AND TIME REQUIRED FOR THESE DEVELOPMENTS - SUCCESSFUL OR OTHERWISE.

W. J. Manville

<u>Location</u>	<u>Product Line</u>	<u>Date Built</u>	<u>Replace. Value Million \$</u>	<u>1974 Employees</u>	<u>1974 Sales Million \$</u>
<u>BUILDING SYSTEMS</u>	-----		16.0	100	9.1
Manville, NJ	Extruded asbestos-cement wall	1969			
Waukegan, IL	panels and formed flat A/C	1927			
	sheets for commercial and				
	industrial building construction				
<u>PAPER</u>	-----		8.0	75	2.9
Tilton, NH	High purity specialty asbestos	1947			
	papers for the electrical				
	industry.				
<u>OTHER</u>	-----		2.0	150	11.0
TOTALS			267.2	3825	184.8

MAJOR PROBLEM AREAS

As noted in the "Summary and Conclusions" section of this report, there are two process steps, common to most asbestos industry segments, where control of airborne fiber generation is of major concern, because past efforts have been unsuccessful in reducing employee exposures consistently to less than 2 f/cc, to say nothing of reaching 0.5 f/cc as an 8-hour TWA.

1. Fiber Introduction

- a) Bag opening, emptying and disposal, (common to all asbestos industry segments)

Since 1954, we have designed and installed 18 different bag opening stations. None has been successful from the standpoint of maintaining exposure levels below 2 f/cc. Presently, the TWA airborne asbestos concentrations to which our employees are exposed at our best bag opening station, range from 0.8 to 2.2 f/cc, with an average of 1.1 f/cc. Fiber counts for all bag opening stations range from 0.8 to 8.6 f/cc.

In addition to our own development efforts, we have tested three commercially available automated bag opening systems. None were suitable because at frequent intervals during their operations, portions of the kraft or plastic bag would enter the raw material mix. In many of our asbestos-containing products, particularly asbestos-cement products, these contaminants result in faulty units which must be rejected.

In order briefly to illustrate the considerable investigation by Johns-Manville of possible alternatives, a history of our efforts to develop a bag opening system follows this section in the reports. It is titled: "CASE HISTORY 1 - ASBESTOS BAG OPENING STATIONS."

As a result of our investigation of possible alternatives, we believe that a fully automated bag opening system, which includes a provision for bag disposal to meet EPA standards, represents our best chance for complying with the proposed permissible limit of 0.5 f/cc. A workable system is unavailable under existing technology. It will be necessary for the asbestos industry, in conjunction with an equipment manufacturer, to undertake a major program to develop a suitable system.

- b) Fiber Handling (common to many asbestos using operations)

Presently, the TWA airborne asbestos concentrations to which our employees are exposed at various fiber handling opera-

with dust collection hoods at all points of dust generation. These hoods are part of elaborate mechanical ventilation systems that exhaust through fabric bag filters. Initial development efforts would concentrate on the trial installation of redesigned ventilation equipment on various types of existing finishing equipment.

If trial installations indicate that this procedure will not achieve compliance with the proposed permissible limits, then new, automated machinery with dust collection as an integral part, unavailable under existing technology, must be developed from the "ground up." Initial development efforts would concentrate on an automated pipe lathe--a lathe used to machine pipe ends. If trials of the new lathe are successful, then development work must be expanded to automate the other types of finishing equipment used in an asbestos-cement pipe plant.

c) Board and sheet surface sanding

Even though our existing sanding lines are relatively new (installed during the last five years) and equipped with manufacturer supplied sophisticated dust control systems, some operating steps are even difficult to maintain at/or below a TWA of 2 f/cc. Exposure levels range from less than 0.5 f/cc at the feed end to 3.5 f/cc at inspection and take-off stations.

The major source of airborne fiber is residual dust on the face of the sheet that is not removed by the existing surface cleaning equipment. Further reductions in the airborne concentration of asbestos fibers from this operation can only be achieved by a more effective cleaning procedure. Equipment to achieve this goal is unavailable under existing technology and would have to be developed through a trial and error process.

RECEIVED

AUG 10 1976

JCS
(PB
for
f: AIA

AUGUST 6, 1976

TO: MR. W. H. MORRISON - RUTHERFORD
MR. E. A. OPILA - CHICAGO HEIGHTS
MR. W. HARVEY - LOS ANGELES
MR. B. BRATSKY - RAVENNA

FROM: A. R. HOOKER, JR. - RUTHERFORD

SUBJECT: A.I.A.

New posters and leaflets are available which you may want to consider for your plants using asbestos fiber.

Copies of the poster itself, the leaflet and an order blank are attached. It is requested that any orders be placed directly on the Asbestos Information Association Office in Washington.

The poster itself is a display board, 11" x 14" on glazed paper stock. The leaflet is four pages and is designed for hand-out to employees.

AHE:dk
Attachs.

cc: Mr. J. C. Harness - Rutherford
Mr. S. Weiss - Rochelle Park

PLAINTIFF'S
EXHIBIT
38
4-22-84
4-3-84

Mr. C. T. Derry
Rutherford

Product Liability
Private Labels

S. Weiss
Rochelle Park

October 8, 1976

Relative to your letter of September 9, 1976 addressed to Mr. J. C. Schmitt which we discussed during a telephone conversation on September 13, 1976, we met with insurance company representatives to discuss the method of handling the product liability exposure connected with customers' private labels and we were advised as follows:

1. If a customer's private label, designed by the customer, is applied to the product by Flintkote, any and all liability that is incurred as a result of label deficiencies will be Flintkote's.
2. If Flintkote's product is shipped to the customer and the customer applies his private label, which he has designed, Flintkote will still be liable but at a lesser degree than in #1 above. Because Flintkote is introducing the product into the stream of commerce, it is Flintkote's responsibility to apply all necessary warnings and cautions even though the customer may re-label the container at a later date. If we apply the private label at the time it is shipped from the plant, we would not have a defense for actions taken against us for inadequate labeling.
3. If Flintkote provides customers with product data sheets and if the customer indemnifies and holds Flintkote harmless for liabilities arising out of inadequate private label content and design, it is still not certain that the courts would absolve Flintkote from any liability. It would be very difficult for us to defend ourselves if it is shown that we knowingly applied a label which was deficient.

Upon further discussion with the insurance company, we arrived at three optional procedures for protecting Flintkote's interests in the use of private labels. They are as follows:

PLAINTIFF
EXHIBIT
39
HOOKER
4-13-84

C. T. Derry

-2-

October 8, 1976

1. Flintkote apply to containers the required warnings, precautions, instructions, etc. separately and in addition to a label furnished by the customer.
2. Flintkote provide the complete label leaving a blank section for the customer to have his name imprinted.
3. Flintkote provide a model label and require the customer to duplicate without deviation the same information on any private label.

It is suggested that you consider the above options as solutions to the private label problem.

As an example of what can occur through an over-^{sight}site in labeling or advertising, we are enclosing a photo-static copy of an article entitled "Labels & Advertisements That Lead To Liability". You may wish to circulate this publication to concerned individuals.

SW:rv

Enc.

cc: Mr. J. C. Schmitt	- Rochelle Park w/e
Mr. J. C. Parkness	- Rutherford w/e
Mr. W. H. Mortonson	- Rutherford w/e
Mr. J. J. Moran	- Rutherford w/e
Mr. A. R. Hooker, Jr.	- Rutherford w/e
Mr. H. F. Stepanek	- Rochelle Park w/e
Mr. T. R. Parke, Jr.	- Stamford w/e

1976 LABELS AND ADVERTISEMENTS THAT LEAD TO LIABILITY

By

J. ARTHUR MILLER

Chicago, Illinois

Labels and advertising have played a substantial part in the rapidly expanding and changing law with respect to product liability. Possibility of liability predicated on labels is dependent on many factors; plaintiff's theory of the case, the particular jurisdiction involved and:

1. The product involved, whether inherently dangerous or not.
2. Statutory violation.
3. Breach of warranty, express or implied.
 - A. Based on Sales Act, or Uniform Commercial Code or.
 - B. Implied warranty imposed by law.
4. Strict liability intent where the product is defective.
5. Strict Liability where no defect exists but product contains ingredient which may be harmful to a minimal number of users and no warning given.
6. Inadequacy of warning.
 - A. What is an adequate label?
 - B. What is the inadequacy?
 1. Is it with respect to the product?
 2. Is it in the instructions given?
 3. Is it in the failure to properly warn as to improper use?
 4. Is it the insufficiency of the warning where the product is inherently dangerous and foreseeability of use by illiterates?
 5. Is it contradictory, thereby lulling the user into a false sense of security.

Misbranding of products resulted in the enactment of food, drug and cosmetics acts (21 U.S.C.A.). Dangerous substances brought about statutory enactments with respect to insecticides, poisons, explosives, inflammable substances, to name a few.

A label on a particular drug may be good today but not tomorrow as a manufacturer is under a continuing obligation to make known the results of his research. If research develops side effects, delay in promptly reporting and adding a cautionary warning will no doubt result in liability to one injured by use of product involved. In May of this year, for example, the Department of Food and Drugs ruled that drugs containing belladonna, sold over the counter and not by prescription, must add a warning to label, effective July 1, 1969, that use may be harmful to those suffering from glaucoma. This requirement necessarily requires the manufacturer to trace the sale of its products and have added an additional label containing the warning or run the risk of liability because of failure to do so.

It is obvious that violation of any statutory requirement as to labeling will result in liability if injury proximately results therefrom.

The cases selected deal with common law liability while reference is

made in some of the decisions to the Sales Act or commercial code, such reference was in support of the common law duty of the jurisdiction involved.

The same is true with any statutory enactment. Reference to such by the court is to point out that the standard set thereby is a minimum requirement of care, and does not establish the common law duty of care of the jurisdiction involved.

It might also be well to point out that the selected cases, excluding one, were selected in conformance with the subject. They stand for the law therein expressed as to that jurisdiction only, as a directly opposite holding might be reached in another jurisdiction. It is likewise true that a jury in the same jurisdiction might reach a different result on the factual issues involved.

The danger of their holdings, because they express the opinions of a court of review, is the possibility; and on some issues the probability, that courts of other jurisdictions will adopt their reasoning.

Adequacy of the label was established in the case of *Karmpfe v. Lahn and Flak Product Corporation*, 249 N.Y.S. 2d 610 (1964), involving Etiquep Spray On, a deodorant prepared and sold for the purpose of preventing body perspiration and odor.

The label stated: "Easy to use—a quick squeeze, it sprays. Stops underarm odor. Checks perspiration. Safe for normal skin. Harmless to clothes."

It also contained statement "Contains aluminum sulphate." The plaintiff, a nineteen year old girl, applied the spray and within a short time, developed itching; dermatitis developed and spread with burning and blistering in addition to the itching.

The testimony indicated that this was her first reaction to this or any other product, that practically all deodorants in the market contain aluminum sulphate. Plaintiff's medical testimony developed that reaction was due to the aluminum sulphate; but conceded safe for normal skin.

Sales of the product totaled 600,000 at time of plaintiff's incident and but four complaints. The jury found for the plaintiff which was affirmed by the Appellate Court. The Supreme Court, Appellate Division, however, reversed the Appellate Court and Trial Court and entered judgment for the defendant.

The case is cited for its holding that:

1. Notice that product contained a particular sulphate was adequate to warn any and all persons who knew that they had an allergy to such sulphate.
2. Specific words of warning would be meaningless to plaintiff and those like her who did not know they were allergic to the ingredient and the defendant should not be held negligent in failing to give a warning which would have served no purpose.
3. The plaintiff failed to prove by credible evidence that the product was not safe for a normal skin and likewise for Lahn to prove that she was one of a substantial number or appreciable number of an identifiable class of persons who were allergic to the defendant's products.

Plaintiff's complaint alleged negligence in the inadequacy of warning on label.

Defendant successfully established that allergy of plaintiff was the cause of reaction; this case accordingly can be distinguished from cases of express warranty, wherein proof of allergy was not permitted. *Spiegel vs. Saks, infra*.

Use of the word "Safe" on label and advertisements proved unsafe to manufacturer in the case of *Spiegel vs. Saks 34th Street and National Toilet Company*, 13 Misc. (2d) 1065, 252 N.Y. 2d 872 (1964).

Plaintiff's evidence established that after reading an advertisement in October of 1960, with respect to Ultra-Nadioula, published by defendant Saks, where she purchased the cosmetic, it was delivered with legend which stated among other things: "Ultra-Nadioula with Dexamtron is the new hospital tested discovery, the new way to fade age spots on hands, facial blotches, freckles, to lighten dark skin. Over 200,000 applications under doctor supervision prove new Ultra-Nadioula non-irritating completely safe." (Dexamtron, a compound of the anesthetic type).

The label itself on the jar contains the following: "Ultra-Nadioula with Dexamtron. Is hospital tested and proven. It's new. It's safe."

The newspaper advertisement which induced the sale, contained among other statements the following: "Ultra-Nadioula is clinically proven and absolutely safe! Over 200,000 hospital controlled doctor supervised applications showed not one single case of skin irritations from its use."

The plaintiff used it but twice. The first was in the afternoon when she applied some of the cream to certain brown spots which had been on the back of her hands. That night before retiring about midnight, she made another application. During the night, she awoke due to a severe burning sensation in areas where the cream had been applied, hands were pulled up, blistered, red and inflamed.

The inflammation progressed from above the knuckles to above the wrists and took two months to clear but hands remained sensitive. That she never before or since the incident suffered from the condition, which a doctor testified could only come about from the application of the medication applied to definite areas and that based upon the history given,

could have to come from the contents of the cream used and that such opinion was based upon a reasonable degree of medical certainty.

The defendant put on no proof. A verdict was rendered for the plaintiff and an appeal followed based upon the contention that the plaintiff had failed to prove a *prima facie* case, in negligence, implied or express warranty on which the case was submitted.

The reviewing court affirmed the verdict on the basis that there was sufficient evidence that the wording in the advertisement and label, constituted an express warranty, that she used such product upon such expressed representation that it was "safe" and it was a use of this product alone that was responsible for the injury and a breach of the express warranty that the product was safe. The court further stated that the affirmation in the advertisement and on the carton and on the jar itself constituted an express warranty within the definition of Section 94 of the Personal Property Law of New York.

The court, in support of its opinion, cited many cases, including *Pritchard v. Liggett and Meyers Tobacco Company*, 3rd Cir. 295 F (2d) 292 (1961) (the well known case involving Chesterfields) and 79 Ah (2d) 416. This case is cited for its holdings:

1. The representation that product was safe constituted an express warranty.
2. Those cases involving implied warranties which exculpate manufacturers from liability, resulting from unusual susceptibility or allergic reaction of a consumer are not applicable; that the warranty in effect stated that it would be safe in that there would be no allergic reaction.

This decision, illustrates the danger of the use of the word "safe." So far as the record indicates, defendant had no knowledge that any of the ingredients therein contained might be proved irritant to a small percentage of users who might be allergic thereto. The well-established principle of law of no duty to warn where there is no knowledge of danger, was of no avail in this particular case, because of the warranty of its being completely safe.

INHERENTLY DANGEROUS PRODUCTS AND INADEQUATE WARNINGS

Inadequate warnings have been productive of much litigation. The vast majority of such cases present jury questions, as to the negligence of the manufacturer, and the contributory negligence of the plaintiff. A much cited case is that of *Tampa Drug Company v. Wait*, Fla. Sup. (1978) 101 So. (2d) 601, 75 Ah. (2d) 765.

Decensed, requested an employee to purchase a gallon of carbon tetrachloride who did so from the Tampa Drug Company, a self-advertised manufacturing chemist.

Having been recommended as an effective floor cleaning fluid, plaintiff with the assistance of one Morgan, started to clean the floors of his home in the morning. Using an open pan, they poured the liquid two inches in depth and then on hands and knees dipped cloth in the fluid and spread over the floor. Both noticed a strong odor from the liquid. Plaintiff worked but an hour when he complained of headache and dizziness and discontinued, but Morgan continued the work that day and part of the following day to complete the job and suffered no injury. In the afternoon, however, plaintiff became ill and died thirteen days later. There was medical testimony that death was due to carbon tetrachloride poisoning.

Testimony indicated, that plaintiff had read the label before he undertook to use and had been warned that he had to be careful when using; that while working, three windows and a door leading to the room where he was working were all open.

His widow filed suit, alleging in Count I that the label was inadequate to warn of the dangerous characteristics of the product and the fatal effects which might follow the use thereof.

Other count was based upon the alleged inadequacy of the label to warn the public of the characteristics and fatal potentialities involved in

the use of the liquid.

The label read as follows:

Carbon tetrachloride—technical (technical means about one hundred per cent pure carbon tetrachloride). Useful as fire extinguisher, cleaning clothing, oils, varnishes, waxes, resins, etc. Volatile solvent—vapor harmful. Use with adequate ventilation. Avoid prolonged or repeated breath of vapor. Avoid prolonged or repeated contact with skin. Do not take internally. Tampa Drug Company, Manufacturing Chemists, Tampa, Florida.

The case, from the pleadings, to the conclusion, was hotly contested. The trial judge struck defenses grounded on state and Federal Statutes. The jury returned a verdict in the sum of \$160,000.

Plaintiff, in the course of the trial, produced numerous labels by nationally known manufacturing chemists which it was contended were more complete and thoroughly effective to warn of the dangers inherent in carbon tetrachloride as well as the potential harm which might ensue on use of the liquid.

Defendant in turn, placed in evidence various labels used by other suppliers to show the adequacy of the label involved. Included in the labels of the defendants, was one approved by the Secretary of Agriculture, under the Federal Insecticide, Fungicide and Rodenticide Act, in order to show that he had met the standard of care provided by such Act. This was admitted in evidence on the basis of being an adequate label consistent with defendant's contention, although the defense of the act itself had been stricken.

The reviewing court held:

1. The product involved was an inherently dangerous commodity and that the measure of duty of such type product is the reasonable foreseeability of injury that might result from the use of the commodity.
2. They could not hold as a matter of law, that the warning notices on the label met the requirements of adequacy and particularly so because of the differences in the various labels introduced into evidence. [The reported facts did not disclose such differences but one must infer, that they contained language warning user of possible danger to life if directions not followed.]
3. Not error, in striking the defense of the Federal Insecticide Act, pointing out, that in any event, they were not controlling as an absolute statutory standard of care, as such act only provided minimum standards, which did not meet the common law standards, in view of the product and facts involved.
4. That implicit in the duty to warn is the duty to warn with a degree of intensity that would cause a reasonable man to exercise for his own safety, the caution commensurate with the potential danger. It is the failure to exercise such a degree of caution after proper warning that constitutes contributory negligence, and, that in this particular case, such was a question of fact for the jury and could not be disturbed on appeal.

The judgment accordingly was affirmed.

It is interesting to note, that the plaintiff was only exposed to the product for approximately an hour while Morgan continued the balance of the day, and part of the following day and suffered no injury. This leads one to wonder as to whether or not the vapor mixed with some other chemical in the plaintiff's body, not contained in Morgan's, resulting in the fatality.

The case is cited to emphasize:

1. A manufacturer cannot rely upon compliance with requirements of a Federal act, as such is a minimum requirement and that the common law standards will control.
2. That a manufacturer of an inherently dangerous product must weigh his warnings, in this case, five, against warning labels of competitors whose warnings might be more numerous perhaps, or the wording thereof more emphatic as to danger.

Multer v. Atlantic Refining Company, 352, Pa. 51, 11 Atlantic (2d) 850, also involved the question of inadequacy of warning the same product, but wherein the carbon tetrachloride was only forty-five per cent and not one hundred per cent. (Incidentally, this case was cited and relied upon, in *Tampa vs. Wall*, *supra*.)

The name of the product "Safety-Kleen" was on each of the four sides of the can while in smaller letters, on but two sides of the can was the word "Caution." Immediately thereunder in one-eighth inch letters, "Do not inhale fumes; use only in well ventilated places."

The jury found in favor of the plaintiff and on review, the court held:

1. "The word safety was so conspicuously displayed on all four sides of this can of dangerous fluid as to make the word 'Caution' and the admonition against inhaling fumes and as to use only in a well ventilated place seem of comparatively minor importance; that the defendant could have reasonably foreseen that the prominent words on four sides of the can 'Safety-Kleen,' would naturally lead the user of that fluid so called, into a false sense of security."
2. A jury issue being involved as to plaintiff's failure to heed the cautionary wording displayed on the can, judgment was affirmed.

It would appear therefrom, that where the word "Safety" is used either in the name of the product or concerning its use, that the word "Caution," and the warning thereafter following, must be displayed on the label an equal number of times and in the same dimensions, where the product involved contains a dangerous substance, as a jury question will be involved as to the adequacy of the warning, and the negligence of the user, in failing to heed such warning.

Inadequacy of the plaintiff's instates, resulted in an adverse verdict in the recent case of *Hebbard-Hall Chemical Company v. Silberman*, 310 Fed. (2d) 102 (1965-1st Circuit).

The action was brought against the manufacturer of an insecticide named "Parathion Dust" sold in bags bearing a label reading as follows:

Caution, may be fatal if swallowed, inhaled or absorbed through skin. Wipe off, absorbed through skin. Wear resistant rubber gloves, protective clothing and goggles. In case of contact, wash immediately with soap and water. Wear a mask or respirator of a type prescribed by the U. S. Department of Agriculture.

for Parathion protection. Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift. Vaccinated areas should not be re-entered until drifting has stopped and volatile residues have dissipated. Do not contaminate food and feedstuffs. Wash hands, arms and face thoroughly with soap and water before eating or smoking. Wash all contaminated clothing with soap and hot water before re-use.

The application for such label was approved by the U. S. Department of Agriculture pursuant to the Federal Insecticide Act, 7 U.S.C. Chapter 6, Section 135. The Department, however, required that the word "Warning" be substituted for the word "Caution."

The deceased workers were both Puerto Ricans, one could read no English whatsoever, and the reading ability of the other was limited. The intestates had often used various chemicals for spraying and dusting, including Parathion on several occasions, including four times the week of the occurrence.

The employer, knowing the dangerous character of Parathion, kept available for his employees gas masks, rubber raincoats and rubber boots. He also testified in lower court (as a party defendant) that he told plaintiffs' intestates and other laborers that the chemicals used in spraying were dangerous and that if they do not wear protective clothing and masks and follow instructions, they were likely to die.

On August 11, 1962, he observed them at approximately 9:15 a.m. without protective clothing; however, they were then eating and resting. After a full day's work, they became sick and died within a few minutes after admission to the hospital. The evidence was adequate that the cause of death was due to use of defendant's product.

The plaintiff's theory was that the label should have had some markings, such as a skull and crossbones to warn the users. Defense contended that the label was adequate and also that the employer of the deceased warned them personally of the dangerous insecticide and that the death resulted when they used product without wearing any protective clothing.

A plaintiff's verdict was returned and the trial judge denied a motion for a new trial.

On appeal, the reviewing court commented more than once that the trial judge was obviously favorable to the defendant. In his charge to the jury, he reminded them that plaintiff's counsel had suggested a skull and crossbones be included on the label, he then asked the jury if defendant should, for example, put a coffin on the label.

Two special interrogatories were submitted by the trial judge.

1. Was adequate warning of the dangerous nature of Parathion and instructions as to its use given?
2. Did the plaintiff's intestates fail to exercise due care of an ordinarily prudent person under the circumstances?

The jury answered "no" as to both interrogatories. The reviewing court affirmed the judgment and held:

1. The jury could reasonably have believed that the defendant should have foreseen that its admittedly dangerous product would be used, among others, by persons like plaintiff's intestates, who were farm laborers of limited reading ability.

2. The label, even if it had been in the precise form of the label approved by the Department of Agriculture, would not, because of its lack of a skull and crossbones or other comparable symbols or hieroglyphics be adequate warnings of its [Parathion's] dangerous condition.
3. The approval given to the label by the Government was merely for the shipment of the product in commerce and did not relieve the defendant of its duty of care as defined by the common law of Massachusetts.
4. Whether or not the decedent received adequate warning, and their contributory negligence, were jury questions. [Court pointing out that the jury could have disbelieved the employer, because he was a defendant at the time he testified and accordingly an interested party.]

It is an old cliché for defense counsel when an unanticipated plaintiff's verdict is returned (and that certainly was the case here) to vehemently exclaim, "A gross miscarriage of justice."

The writer submits, that it would be difficult to find a case representing an actual miscarriage of justice not only as to the adequacy of the label, but also as to the negligence of the plaintiff's being the sole cause of their death, than the above.

The label contained ten warnings, including directions if product contacted skin. In view of the deadliness of the product it should appear obvious that on the four prior occasions the decedents must have worn the protective clothing indicated or they would not have survived to the day of the incident.

It is submitted that the facts in this case create an inference that the decedents were allergic to soap and water resulting in their disregarding warnings of which they were fully aware.

The case stands for and well illustrates the lengths to which a reviewing court will go to support a jury finding where plaintiffs are illiterates.

Spruill v. Boyle-McCaughey Inc., U.S. Dist. Ct. Va. 308 F. 2d 79 (1962) involved the death of a fourteen month infant, who ingested a small quantity of defendant's "Old English Red Oil Furniture Polish."

Product was a bright cherry red color contained in clear glass bottle with a red metal cap.

The label passed completely around bottle. Front part described the product in large letters and below that, "An all purpose polish for furniture, woodwork, pianos, floors." Reverse side of the label, with a white background in red letters capitalized was, "CAUTION: COMBUSTIBLE MATERIAL."

Immediately below, also in red letters, one-sixteenth inch high, appeared, "Do not use near fire or flame."

Then several lines down, in brown ink, were directions. In the eighth line in letters one-sixteenth of an inch high, also in brown ink, appeared the words "Safety note." Following in letters one thirty-second inch in height "Certain related petroleum distillates may be harmful if swallowed, especially by children."

The petroleum distillate was a toxic substance, one teaspoonful of which

would kill a small child. The medical testimony was uncontroverted that the child died of hydro carbon pneumonia resulting from the defendant's polish.

The mother's testimony was that after purchase, she started to use the same day and while in the child's room left same for four or five minutes. She placed the bottle on the cover cloth of a bureau next to the child's crib. During her absence, the child apparently pulled the cloth containing the polish and other articles into the crib, removed the cap and consumed a small portion of the polish.

She further testified that she had read the statement with reference to being combustible but did not read the directions because she knew how to use furniture polish.

Introduced into evidence were answers by defendant to plaintiff's interrogatories which established knowledge of at least thirty-two cases of chemical pneumonia since 1951 resulting from the ingestion of their product, ten of which resulted in death.

The jury returned a verdict for all surviving heirs except the mother.

The reviewing court affirmed and held:

1. Under the Virginia law the test of whether a product is inherently dangerous stems from the product itself and not from any defect in it and that the product involved was inherently dangerous.
2. Question of the sufficiency of the warning of danger of an inherently dangerous product to user is a jury question.
3. That the label involved and particularly the "safety note warning may be harmful if swallowed especially by children," was insufficient.
4. Manufacturer of product inherently dangerous, was required to anticipate reasonably foreseeable risks of use of such product in the home.
5. The questions of the mother's negligence as an intervening proximate cause or concurrent negligence, was likewise a question of fact for the jury.

The court rationalized that a reasonable jury could conclude considering the environment of the modern home, that due care and caution would require that the poisonous character of the product be given greater prominence on the label, at least equal to the warning of danger arising from its combustible nature.

The court further stated, considering the admission of the mother that she had never read that portion of the label, that had the warning been in a form calculated to attract the user's attention, as to position, size and coloring of lettering, and had the words used therein been reasonably calculated to convey conception of the true nature of the danger, that the mother might not have left the product in the presence of her child. The court further stated that the mother might not have purchased the product at all if the warning had properly been conveyed to her, a fact of which the manufacturer appeared to be aware, and that the findings of its warning of the greater danger, within its warning of the lesser, is imperiling its merchantile interests at the expense of the duty of due care it owes to the purchasing public.

The reviewing court was severely critical, not only of the manufacturer, but also of cases cited by defense as to a use other than for intended purposes and foreseeability. The case stands squarely for the holding that in any product designed for household use, the manufacturer thereof should foresee that a young child may get hold of the product and drink same.

ADVERTISEMENTS

Tires have been very much in the public eye recently, and the advertisements of a manufacturer, resulted adversely, in the case of *Hanson v. Firestone Tire and Rubber Company*, 270 Fed. [2d] 251 [March, 1960].

Plaintiff, on July 29, 1953, purchased directly from Firestone's Detroit outlet, four new Firestone Supreme tubeless tires (then new in use). Inserted in each tire was a rubber "safety diaphragm," described in its advertising brochure as an "emergency tire that holds large volume of air in case of blowout" with a "safety valve in the diaphragm that closes instantly in case of a blowout." Brochure further stated tires made to "fit present rims" and to "fit any standard rim" and would remain "airtight" and an "airtight seal" formed when mounted against rim. That Firestone Supremes were further described as "safe enough to control one or two tons" at "speeds up to 80 miles per hour," "safe enough to cling to road on dangerous curves" as having lining that "holds air longer than ordinary tubes" and having "greater road stability at any speed" that they "hoisted the highway and provide "greater corner power, more control, more safety."

The testimony established that Firestone employees encountered much difficulty in properly mounting and seating tires requiring brushing of the tires many times with a vegetable oil compound. The week following, vibration developed in steering wheel and upon examination Firestone found that the diaphragm in the left front tire was broken, requiring installation of a new one, and then the same difficulty was encountered in properly mounting and seating, and again requiring brushing of tire with vegetable compound.

Twelve days later, plaintiff left Detroit and as he drove around a sharp curve, felt the back end of the car fall at the right as if from a blowout or a flat tire; felt as though he was riding on the left, car then veered to the left side and he then lost control and rolled over (apparently more than once, with resulting injuries).

Examination, following the accident, revealed that the two right side tires were not in contact with the rim, were deflated with vegetable compound running out of tires where pulled away from rim; however tires were not broken, torn or ripped open.

Plaintiff's theory was based upon

1. The negligence of defendant's employees in mounting tires, and,
2. Breach of express and implied warranties.

Plaintiff elected, at the close of defendant's evidence to rely entirely on the breach of warranty counts, and abandoned his negligence theory.

jury returned a verdict in plaintiff's favor. Six months later, the District Judge entered a N.O.V. for the defendant.

The trial judge reasoned in support of his finding that the plaintiff had attempted to prove his case by proof of overlubrication of tires and underinflation, these acts constituting alleged negligence. That the only proof of breach of warranty was the negligent action of the defendant's employees in the mounting and seating of the tires and because no negligence was charged (such theory having been abandoned), the proof of the negligent acts could not support claim of breach of warranty.

The Appellate Court repeated this reasoning based upon the plaintiff's testimony that he relied upon the truth of the advertisements (above quoted) and that he purchased the tires in reliance on the truth of the representations and the warranties proved to be untrue and his immediate harm resulted.

The Court quoted with approval, *Rogers v. Toni Home Permanent Company*, 167 Ohio St. 211, 147 N.E. (2d) 612-615 (1959), among others, together with Sec. 19.08 of the Michigan Statutes annotated Par. 140, 69 (breach of warranty with respect to Uniform Sales Act).

It is submitted that plaintiff on reported facts, made out a case of negligence in improperly mounting and seating the tires and that if case had gone to jury on such count, a plaintiff's verdict would have resulted.

The reviewing court did not specify the statements construed as warranties. The tires were not broken so it would appear that there was no blowout. Several of the statements would appear to be puffing and opinion of comparison with tube tires and not warranties.

It would appear that an express warranty arose in each instance where the word "Safety" appeared in statements made as to various qualities.

The case illustrates that where a manufacturer warrants the safety of a product, he becomes an insurer to the user thereof.

Express warranties, arising out of advertisements, as defined by the Supreme Court of Ohio, in the case of *Rogers v. Toni Home Permanent Company*, 167 Ohio 211, 147 N.E. (2d) 612 (1958), has been accepted and followed in a number of jurisdictions.

This case involved the purchase of a home permanent, alleged reliance advertisement of product, and the following of explicit directions as to use. Plaintiff, as a result of application, suffered a loss of hair to within one-half inch of scalp.

The Supreme Court concluded that the pleading stated a cause of action, and overruled their prior decisions, and stated:

Under such merchandising practices, where the manufacturer of a product in his advertising makes representations as to the quality and merit of his product aimed directly at the ultimate consumer and induces the latter to purchase the product from a retailer, and such ultimate consumer does so in reliance on and pursuant to the inducements of the manufacturer and suffers harm in the use of such product by reason of deleterious ingredients therein, such ultimate consumer may maintain an action for damages immediately against the manufacturer on the basis of express warranty, not withstanding that there is no direct contractual relationship between them.

This decision in effect, made the manufacturer an insurer, as the court

did not require knowledge on the part of the manufacturer before he sold the product, that the deleterious ingredients were contained therein, as pointed out by one justice, who dissented to that portion of the opinion.

Connecticut adopted and followed *Rogers v. Toni* in 1981 in the case of *Hannon v. Dighiani*, 119 Conn. 710, 171 AII. (2d) 291.

This case likewise was decided on the pleadings and involved severe burns sustained by the plaintiff, when the contents of a bottle of Lestoil, a household detergent, accidentally spilled on her.

Second Count of her Complaint was based upon extensive advertising via radio, television, newspaper and other advertising which impliedly warranted that it could be used safely for household and other cleaning tasks and also expressly warranted that it was the all-purpose detergent for all household cleaning and laundering. It also alleged sale by inducement via the advertisement, reliance thereon, that the product was not as warranted and that she was injured by reason of the breach of the express and implied warranties.

Defendants demurred on the sole ground of no privity of contract or any sale between them. (Plaintiff having purchased from retailer and who was a defendant in another count not herein involved.)

The court sustained the demurrer, judgment was rendered for the defendants from which the plaintiff appealed.

The reviewing court analyzed its prior decisions which were adverse to the plaintiff and which in effect stated that the implied warranty was in the nature of a contract of personal indemnity with the original purchaser and did not "run with the goods."

The court took recognition of the growth of supermarkets, display of goods therein with their alluring labels, made comments on the wide spread appeal to the ultimate consumer by radio, magazine, billboard or newspaper, and concluded, that the rule as expressed in *Rogers vs. Toni, supra*, correctly stated the law, in view of the changing methods of sales. The court accordingly set aside the judgment and remanded and defendant was required to answer.

This case is cited because of its holding:

1. Where a manufacturer makes representation in his advertisements, or by the labels on his products as an inducement to the ultimate purchaser, the manufacturer or producer should be held to *strict accountability* to any person who buys the product and relies on the representation and later suffers injury because the product fails to conform to them.
2. The rule, as announced, is an expansion of *Rogers v. Toni* as it is noted that the advertising only impliedly warranted that it could be used safely for household tasks and the express warranty was an all purpose detergent for all household cleaning and laundering.

Implied in the decision is foreseeability, that the defendant should foresee that in such use within a home, it was inevitable, that in some instances, the product would be spilt upon the user thereof and if there is any harmful and deleterious ingredient therein contained, ample warning should have been given.

The following year the Connecticut Court reviewed the case of *Ruderman v. Warner-Lambert Pharmaceutical Company*, 23 Conn. Sup. 410, 151 A.2d (2d) 67 (1962).

This involved an alleged breach of warranty against a manufacturer of a home permanent preparation. The plaintiff alleged that in purchasing and using she relied upon representations and warranties made through various advertising media and that she was injured by reason of the falsity of those claims.

The privity defense having been laid to rest in *Hanna v. Dighant*, *supra*, defendant demurred because of failure to give notice of the claimed breach of warranties, based upon the Connecticut statutes, since replaced by the Uniform Sales Act.

The court held that the warranties sued upon, were not contractual between the parties and therefore not subject to the requirements of the Sales Act with respect to notice of breach.

This case is cited for its holdings, that an express warranty via advertisements is one that "runs with the goods," and that implied warranties are imposed by law, and that a contractual relationship is not required or involved.

The cases above cited deal with products which are not defective but do contain some deleterious ingredient, which might produce an irritation or dermatitis to a nominal number of users.

The only defense left, in those jurisdictions adopting such holdings, is that of proximate cause.

Advertising may also lead to liability wherein products are not involved. The well known case of *Nolan v. Union Wire Rope Corporation*, 31 Ill. (2d) 61, 199 N.E. (2d) 769, is an example of a decision which caused dismay in the insurance industry.

This case resulted in a judgment of \$1,500,000 when a hoist with nineteen workmen fell six floors in Jacksonville, Florida, resulting in death of seven and severe injuries to the remainder, two of the plaintiffs were employees of the general contractor and the others, employees of his sub-contractors.

The action was against Union Wire Rope Company, manufacturer of a cable that broke, Archer Iron Works, designer and manufacturer of the hoist and a safety device thereon which failed to halt the fall, and the general liability and Workmen's Compensation carrier of the general contractor.

The jury entered a not guilty as to all defendants other than the insurance carrier. On appeal, the Illinois Appellate Court reversed outright judgment against the carrier, and affirmed the not guilty findings as to the other defendants. Plaintiff was granted leave to appeal to the Supreme Court and several insurance groups to file a brief as *amicus curiae*.

The case was an involved one, but for one purpose, reference will be made primarily to the advertisements placed by the insurance carrier and the obligations resulting therefrom.

Plaintiff's theory of the case against the insurance carrier was that it had gratuitously undertaken to make safety inspections of the premises and equipment of the general contractor, had carelessly and negligently

performed said inspection as the proximate result of which the plaintiffs were injured and killed. Further allegations were made that they had carelessly and negligently failed to detect and report that the hoist safety mechanism was inadequate and defective; that the tower was improperly designed and manufactured and did not have sufficient strength to permit the safety device to function; that the cable was in a worn condition; that the hoist was being used for the transportation of personnel in violation of a city ordinance and that a shackle on the hoist was of improper size in violation of a city ordinance.

The defendant in its answer, denied such allegations, denied periodic or regular surveys of the equipment including the hoist, but admitted that they made intermittent and infrequent surveys and inspections of the premises.

The trial court admitted into evidence, copies of twenty-nine advertisements placed by the insurance carrier at various times in national or trade publications and were referred to in the record as the "Mr. Friendly" advertisements. In general, each of the twenty-nine advertisements was to the effect that "their safety engineers took an active part in the safety program of its insureds," and "saved lives, limbs and money," that insureds "have worked hand in hand with its safety engineers to build safety into every job."

The Supreme Court held that in light of defendant's answers which denied that it had undertaken to make surveys or inspections and its repeated allegations that the "visits and inspection were solely for its own purposes of keeping informed and advised on the risk, that such evidence was admissible." In support thereof, and with citations, they held that a statement made by a party in his behalf which is inconsistent with his present position may be introduced in evidence against him; that advertisements, brochures, newspaper items, catalogs and the like are admissible and relevant to the subject matter of the suit where they contain statements of a party inconsistent with a claim or a position asserted by such party in the action.

The Supreme Court further stated that the advertisements, the work reports and testimony of the carrier's safety inspector, was sufficient to support jury findings as follows:

- 1 That the carrier undertook to render gratuitous safety inspections, which were planned, periodic and directed to safety of project employees; that such undertaking imposed the duty to make such inspections with due care.
- 2 That such duty extended to such persons as insurer could reasonably have foreseen would be in danger as a result of its negligent performance and that such duty does not depend upon contract or privity of interest, but extends to remote and unknown persons.

One can only speculate as to how much a part the admission of the advertisements played in the ultimate result in view of the testimony by the safety engineer on the work records. It may be safely assumed, however, that it played a substantial part in the ultimate result.

SUMMARY

Labels and advertisements are but one facet of the vast and expanding field of Products Liability. Many excellent textbooks have been written on the subject, scholarly analysis made in law reviews and many excellent papers delivered by members on this subject.

The last few years have witnessed what might be termed revolutionary changes of the law in some jurisdictions with the inevitable result that conflicts develop with resultant uncertainty as to determining what is the general rule. Formerly privity of contract requirement was the general rule and today may be classified as the minority rule.

The year 1966 has witnessed an unprecedented number of hearings by governmental bodies with almost daily nationwide publicity. The automobile and tire industries have been the primary targets. Absorbing as it has been much in the public eye, Safety and quality have been seen and is the goal sought to be achieved. It is anticipated that there will be no letup of such inquiries in the immediate future.

The impact upon the public, as to the charged lack of safety of automobiles has been reflected in reduced sales.

The admission by the automobile owners of the surprising number of automobiles recalled back for correction because of a defect in some part thereof was a shock to all.

It is anticipated that the general public, who with each passing year become more clamorous, will become so in increasing numbers and that litigation will markedly increase.

It would appear with respect to advertisements that contain the word "Safety" that:

1. Each passing year will witness more jurisdictions adopting the Strict Liability tort theory, where the product is defective; and where the product is not defective, that warranty of safety to user thereof makes the manufacturer an insurer of safety.
2. Increased liberality of courts in construing statements made as warranties, rather than puffing of product or opinion comparison.
3. Greater liberality of courts in holding that question of fact is involved where statements made in advertising tend to discount cautionary warnings on labels, on theory that advertisements "lulled" the reader or listener into a false sense of security.

Perhaps worthy of mention is the opinion of a well known senator, that the caution on side of cigarette package, "Cigarette smoking may be hazardous to your health," was insufficient. He charged that televising of idolized stars in baseball, hockey, and the like, portraying their enjoyment as they inhaled the cigarette, induced teenagers to become addicts of the habit and that in effect, the appeal indicated the manufacturer's dishonesty in the warning. It will be surprising if such theory is not played in future litigation involving the product.

4. Additional statutory enactments relative to advertising seven states now having such.

Labels

Inherently dangerous products:

1. Enactment of more stringent requirements with respect thereto.
2. Increased liberality in holding that a question of fact is involved where positioning of warning, its size of lettering, the wording thereof, as contrasted with other statements therein contained, as to the adequacy of warning, theory being that positioning and size of letters is based on deceit.
3. Cosmetics and allied products.

It would appear that where an advertisement is construed to be a warranty of safety, that liability for breach thereof will follow, if the breach proximately resulted in injury to the user, in an increasing number of jurisdictions. This is a harsh rule, but to avoid the application of such, the statement of safety must be qualified, such as "a normal skin," as in the case of *Kearney v. Lohr and Flak Product Corporation, supra*.

The changing law in Products Liability has been a boon to plaintiffs. It would appear that a marked increase of litigation will follow based on warranty arising out of advertisements and/or labels; a decrease of litigation under the Sales Act or Commercial Code, thereby eliminating the defenses available thereunder.

Labels will be subjected to exacting scrutiny not only as to wording itself, but positioning and size, and foreseeability of use within the house, so as to develop a question of fact, as to inadequacy.

The cases cited illustrate the trend of the juries and courts to compensate the injured through use of a product by taxing the manufacturer thereof. After all, is it not however the same trend we are witnessing in the world and our nation in the changing economic and social life?

MR. R. BROWN
MERCHANDISE DEPT

NOVEMBER 28, 1977

MR. W. T. HOYT

SEARS INSTRUCTION SHEETS

Dear Bob:

We are adding the following warning to our installation instruction sheets:

Warning

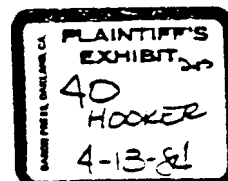
Do not sand existing resilient flooring, backing or lining felt. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust may cause asbestosis or other serious bodily harm.

Should we be doing the same for Sears instruction sheets?

WTH:ra

W. T. Hoyt

cc: C. E. Dill





INTER-OFFICE CORRESPONDENCE

TO MR. J. C. HARKNESS
MR. J. C. MURPHY

DATE JUNE 30, 1978
FROM A. R. HOOKER, JR.

SUBJECT ASBESTOS

Several plants within your respective divisions have in the recent past or are currently using asbestos fibre. This letter is to alert you (in turn you may want to alert your works managers concerned) of forthcoming action to be taken by the Health Education and Welfare Department of the United States Government.

Recently, HEW Secretary Califano issued an extraordinary statement announcing steps he would take to inform doctors, workers and others "about the increased health risks of asbestos exposure." He said, "asbestos is one of the most dangerous and insidious substances in the workplace." HEW has sent advisory letters to 400,000 physicians and a major public information campaign aimed at workers and others exposed to asbestos will commence in the near future. It is important to note that the Secretary emphasized high worker exposure "in the past" and particularly in shipyards. He also stressed the greatly increased risk of lung cancer among smokers. His action resulted from Defense Department (Navy) failure to identify World War II shipyard workers who might have been subject to excessive asbestos exposure as a result of pressures exerted by the Health Research Group, a Nader public interest organization. Of relevance was the federal government's financial involvement in the settlement of the much publicized Tyler, Texas suit. The Califano announcement may have serious effect on public attitudes toward asbestos usage. Certainly it will encourage further action by regulatory agencies for controls on asbestos. HEW has now announced that newspapers, radio and TV will be used to warn the public, and particular workers who have been exposed to asbestos, of the possible affect on their health. We believe the first effort will be in the form of "Soap Opera" spot radio programs. One dialogue which I have heard is between three men, one who is disabled and two others who are being warned by the disabled to "check out" their coughs with a doctor. I understand this will spread to TV and newspapers.

In conjunction therewith, or at least coincidental thereto, ABC Television has scheduled on July 14 a documentary on asbestos.

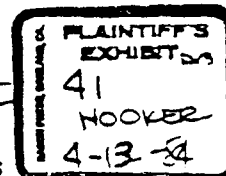
I submit the following thoughts for whatever help they may be in any needed response to comments or concern raised by this forthcoming media action:

That excessive exposure to asbestos dust presents a risk to health is an established fact. Unregulated exposure to asbestos during World War II coupled with long latency periods for the development of disease provided a timeliness to certain asbestos-health studies which were to receive extensive and frequently exaggerated treatment by special interest groups and the news media. Exposure levels of asbestos dust in the past and particularly during the World War II era are simply not related to present regulated conditions.

ARH:dk

cc: Mr. M. C. Carpenter - Stanford
Mr. W. H. Mortonson - Rutherford

Mr. W. Harvey - Los Angeles
Mr. S. Weiss - Rochelle Park





INTER-OFFICE CORRESPONDENCE

TO Messrs.
J. C. Harkness
J. C. Murphy

DATE October 23, 1979

FROM A. R. Hooker, Jr.

SUBJECT ASBESTOS - C.P.S.C. & E.P.A.
PROPOSED RULEMAKING

I am attaching a copy of the Federal Register dated October 17, 1979. I have underlined what I believe to be the most significant aspects of these notices.

Plintkote is a member of AIA/NA (Asbestos Information Association/North America) and in conjunction, therewith, it should be noted that, with the exception of the joint statement on coordination, the enclosures are advance notices of proposed rulemakings. Thus, they are the initial steps in the rulemaking process. It may be expected that, subsequent to consideration of comments received from these advance notices, CPSC and EPA will then publish proposed rulemaking notices with attendant comment periods and public hearings to follow prior to issuance of any final regulations. EPA has indicated that the agency plans to propose regulations developed from the first phase of its investigation (selected asbestos paper products automobile and light truck brake linings) in early 1980, with a final rule expected in late 1980. While no timetable has been published by CPSC, the actions of the two agencies will be closely coordinated.

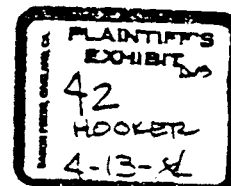
Following approval of members at the AIA/NA annual meeting on September 19, the law firm of Kirkland & Ellis was retained as special counsel for federal regulatory affairs. Kirkland & Ellis is presently assessing the enclosures as well as possible, imminent initiatives by OSHA on the asbestos standard with the view of proposing a comprehensive response strategy for consideration by the Association. In meeting with the AIA Executive Committee on October 16, special counsel suggested that the Association and its members refrain from submitting comments to CPSC and EPA pending completion and receipt of their strategy assessment. It is expected that more definitive input will be available from special counsel within 30 days. In the meantime, AIA members are urged to review closely the issues and questions in the advance notices and give consideration to collection and preparation of data and information that are of particular applicability to their companies.

Also attached are the remarks made by AIA President at the September 19, 1979 Board of Directors meeting in Washington, D. C. This is a good review of the AIA activities.

ARH/lf
Attachments

cc: M. Carpenter - Stamford
S. Weiss - Rochelle Park
Wm. Carl - Irving
Paul Tanner - Irving
M. Parke - Stamford

A. R. Hooker



DRAFT
10/72

GAF CORPORATION
COMMENTS RELATING TO THE
DEPARTMENT OF LABOR'S PROPOSED ASBESTOS REGULATIONS
TO BE PRESENTED AT THE PUBLIC HEARINGS
TO BE HELD ON MARCH 14, 1972

GAF Corporation has reviewed the Department of Labor's Proposed Asbestos Regulations (Proposals), the National Institute for Occupational Safety & Health Report (NIOSH), and the Recommendations of the Advisory Committee (Recommendations). This has been accomplished with the assistance of GAF's Engineering, Safety, Environmental Engineering and Legal Departments, as well as Product and Production Managers and other line management. Due to the brief period of time since the Regulations were proposed and the date of this hearing, we have not been able to carry out a full study as to the validity, cost and feasibility of the Standards. Additional time is needed for a more complete investigation.

However, we have made a preliminary conclusion that the Proposed Standard is workable except for the comments and suggestions made herein.

GAF presently produces the following asbestos-containing products:

- (1) vinyl asbestos floor tile and sheet vinyl flooring; (2) asbestos cement

products consisting of siding, flat sheet, canal bulkheading and decorative brick; (3) asbestos felt and millboard; (4) asphalt paints and plastics; and (5) asbestos fiber.

For purposes of this discussion, our comments will be addressed primarily to the Sub-Sections in the Proposals.

(a) Asbestos Dust.

GAF believes that it can comply with the five (5) fiber Standard within approximately two years, but only at great cost. GAF manufactures a number of diverse asbestos-containing products and different abatement methods and procedures are required for each.

While our testing program is far from complete due to lack of time, it has been estimated that it would require an investment of more than one million dollars to reduce to the five (5) fiber Standard the asbestos dust levels under all conditions in the asbestos cement plants, more than \$600,000 at the floor tile and sheet vinyl flooring plants, more than \$200,000 at the asphalt paints and plastic plants and \$400,000 in the asbestos felt and millboard plants. It is estimated that it would require at least two years to meet the five (5) fiber Standard at the referenced plants due to the need for further testing and study, and the design, ordering and installation of abatement equipment.

The NIOSH Report and the Recommendations propose a two (2) Fiber Standard. In our opinion, an incalculable but unsupportable cost would be required to reduce emissions to the two (2) fiber level and in any case, it would take considerably more than two years to attain such a level if in fact it could be reached at all. A two (2) fiber Standard would require that GAF reconsider the economic feasibility of continued operation of the above plants. These plants provide the livelihood for more than 4,000 employees.

[GAF operates an asbestos mine in Vermont. We have been working closely with the Bureau of Mines in an asbestos reduction program at the mine. However, there is no economically feasible known method to reduce exposure at the mine to the five (5) fiber Standard. The mine is an integral part of the GAF operation and supplies asbestos to a number of GAF asbestos felt plants and other customers.]

In summary, while the five (5) fiber Standard can be met at GAF facilities (except for the asbestos mine) within a period of at least two (2) years by the expenditure of approximately \$2.2 million, the two (2) fiber Standard would appear to impose an unsupportable economic burden on GAF and the asbestos industry. The Office of Assistant

Secretary of Defense, Health and Environment states a position with which we agree in its letter to NIOSH dated 13 January 1972 when it advised that the two (2) fiber Standard "is too stringent for us to meet."

GAF will attempt to comply with a five (5) fiber Standard for its asbestos operations. We recommend that the following five (5) fiber Standard become effective within two years from the date the final Regulations are enacted.

"(a) Exposure to airborne asbestos for an employee shall not exceed five asbestos fibers, greater than five microns in length, per cubic centimeter of air calculated as a time-weighted average exposure over the entire working day; and during the workday no concentration of asbestos to which workers are exposed shall exceed 10.0 fibers per cubic centimeter. The above Standard shall become effective two years after its promulgation."

(b) Methods of Compliance, Engineering and Other Methods.

This Section is adequate under present technology. We recommend the addition of certain proposals found in the Recommendations to maintain concentration of asbestos fibers below exposure limits, such as the "Application of water and wetting agents", and the specifications dealing with an exhaust system.

(c) Allowable Respirators.

To allow flexibility in the choice of respirators and at the same time insure employees' safety, the following wording is suggested for this Section. You will note that some of the phraseology is borrowed from present OSHA Regulations, Sub-Part I -- Section 1910.134 (b):

"(1) Where engineering methods are not feasible, or do not reduce the concentrations to or below the limits prescribed in Paragraph (a) of this Section, approved respiratory protective devices (respirators) shall be used and shall be suitable for the purpose intended.

(2) No employee shall be assigned to tasks requiring use of respirators if based upon his most recent examination, the examining physician finds that said employee will be unable to function wearing a respirator, or his health will be impaired thereby."

Protective Clothing.

Work clothing is only necessary in extremely dusty areas, and should be used only when absolutely necessary.

The proposed work clothing requirements, set forth in NIOSH, would be extremely costly to implement if such should become necessary. In addition to the need for the work clothing and cleaning thereof employees would require wash up time as well as locker rooms and showers. Con-

struction of these facilities in a single plant could cost \$125,000.

We recommend the adoption of the Advisory Committee recommendation that the employer will provide employees with protective work clothing when they are required to work in an area that contains asbestos dust in concentrations greater than 10 times the permitted limit of Paragraph (a).

(d) Particular Operations and Products.

(1); (2) and (3) -- We have no comment regarding these Sections which are primarily applicable to the construction and related industries.

(4) Mixing.

The covering or closing of the mixing process of the materials mentioned in the Proposals should only be necessary if substantial amount of asbestos is emitted therefrom. This is not the case in regard to GAF asbestos products.

For example, our asbestos cement is made on a four-cylinder Hatchek Machine similar to a paper machine. Asbestos is mixed with water and other raw materials and held in suspension in the mix from the moment it is poured into the machine. The same type of conditions exist for asphalt paints and plastics.

For the reasons stated, the Sub-Section should be amended as follows:

"Asbestos cement, mortar, coatings, grout and plastic shall be mixed in closed bags or other closed containers only when the mixing causes emissions of asbestos in excess of the permitted limits prescribed in Paragraph (a)."

(5) Waste and Scrap.

There is a substantial amount of material that might be considered waste and scrap in the manufacture of asbestos products. Most, if not all, consists of "locked in" asbestos (i. e. asbestos which is bound and encapsulated in binder material), such as the trim from asbestos paper and millboard, asbestos cement products, roofing, flat sheets and floor tile. This trim is generally stored outside the operating areas for future recycling or disposal.

There are substantial quantities of this material at most operations consisting of from 6,000 tons from one plant to over a million tons of tailing rock a year at our Vermont mine.

If G. P. were required to bag or containerize this so-called waste, it would serve no health and safety function, yet cost several million dollars a year due to the significant amount of this material emanating from the manufacturing process. For example, extra tile or sheet vinyl would be

The following rewording of this paragraph would eliminate the outlined problems:

"Where feasible, accumulation of asbestos dust shall be removed by vacuum cleaners. If dry sweeping is carried out, suitable respirators shall be utilized in accordance with Paragraph (c) hereof."

(e) Warning Signs.

GAF does not take issue with the Proposal that warning signs be located at certain areas of a plant where there is a sufficient quantity of dust to constitute a potential hazard. We submit, however, the Proposal is too long and detailed as to the exact wording of such a sign.

A sign should be posted where respirators are required. When the specific area exceeds the prescribed limit, the following sign shall be placed nearby in accordance with present OSHA Safety Standards:

CAUTION

ASBESTOS DUST AREA

Breathing of the Asbestos Dust May be Hazardous
to your Health - Use Approved Respirator.

Warning Labels.

The labels prescribed in the NIOSH Report and the Recommendations

REMOVED DOCUMENT

REQUEST
~~INTEREST~~ FOR OPINION
FROM CORPORATE COUNSEL
(REPLY TO ANOTHER DOCUMENT
FOR WHICH PRIVILEGE CLAIMED)

LAWYER-CLIENT PRIVILEGE

The major component in many of these products is not asbestos. Paints and plastics contain less than 17% asbestos by weight, asbestos cement products less than 25% and vinyl asbestos floor tile less than 20%.

One must also keep in mind that certain of the above products are consumer orientated, such as flooring and siding. A warning label would be a substantial and unnecessary deterrent to the sale of these products. Since these products are not hazardous under any conditions, they should not be labeled as such. Their demise could mean the abolition of thousands of jobs at the manufacturing, distribution, contractor and retailer levels. For example, GAF employs approximately 4,000 employees in its asbestos plants and sells to over 35,000 retailers and contractors. We operate over 14 Building and Industrial Product plants. All would be affected, as well as several hundred suppliers to these plants furnishing over 30 million dollars of component materials.

GAF favors labeling when it serves a legitimate purpose. GAF has a Labeling Committee, whose function is to review and provide labels for products wherever appropriate. We have, for example, a label on bags of asbestos fibers which states:

CAUTION: Contains asbestos fiber. Inhalation
in excessive quantities over long periods of time
may be harmful.

Avoid breathing dust. If adequate ventilation is not possible, wear respirators approved by the U. S. Bureau of Mines for pneumoconiosis producing dust.

This label is necessary since the asbestos fiber could be emitted in substantial quantities if the bag was improperly opened.

However, since there is no need for a label on our asbestos products due to the "locked in" character of the asbestos, we strongly oppose such a requirement.

(f) Monitoring.

GAF does not oppose any reasonable requirement on plant monitoring. We agree with the general principles outlined in the Proposals and make the following suggestion as to frequency of monitoring.

"(iv) Sampling periods shall be of such a number and pattern as to represent accurately the exposure of employees over their working period, but not more than once annually."

(g) Medical Exams.

We agree in principle with the Recommendations of the Advisory Committee regarding the above. However, the requirement that an examination be conducted more than every two years for those working less than 10 years should be left to the discretion of the examining physician, who is the best judge of the employees' physical condition.

The following is recommended:

"A comprehensive history and physical examination shall be performed on workers and applicants. This shall include a chest roentgenogram (posterior-anterior 14 X 17 inches) and baseline pulmonary function including forced vital capacity (FVC) and forced expiratory volume at one second (FEV 1.0).

Periodic medical evaluation is required annually on workers with 10 or more years exposure to asbestos above the permitted limits of Paragraph (a) and every two years on other workers and those with less than 10 years exposure, unless a plant physician provides otherwise.

A comprehensive termination medical examination shall include physical examination, chest roentgenogram, FVC and FEV 1.0, and questionnaire for respiratory symptoms.

The initial and termination medical evaluations shall not be required, if a similar comprehensive medical evaluation has been performed within a 12 month period."

(h) Records.

GAF proposes the following recordkeeping regulations, due to the confidential nature of these medical records.

"Medical records shall be maintained by physicians and other employees charged with the implementation of the medical records. Only those physicians designated and authorized in writing by the employees, shall have access to the medical record. Records shall be maintained for 10 years."

In conclusion, GAF expresses general agreement with the Proposals of the Department of Labor, except as noted herein and respectfully request that careful consideration be given to all GAF suggestions and recommendations to make the Proposals economically and technically possible.

REMOVED DOCUMENT

MEMO (WITH ENCLOSURES)
TO CORPORATE COUNSEL
G. G. CURRY

LAWYER-CLIENT PRIVILEGE

REMOVED DOCUMENT

MEMO FROM CORPORATE

COUNSEL (G.G. CURRY) WITH
OPINION

LAWYER-CLIENT PRIVILEGE



JOHNS-MANVILLE
CORPORATION
PIPE DIVISION

22 EAST 40TH STREET • NEW YORK 16, N. Y. • TELEPHONE: LEXINGTON 2-7600



August 7, 1961

Mr. E. C. Koch
Orangeburg Pipe Division
375 Park Avenue
New York, New York

Dear Sir:

In setting up your pipe operations, it is assumed that you have knowledge of the fact that there are certain hazardous conditions in the manufacture of Asbestos Cement products.

As you know, there can be a hazard from Asbestos fibers as well as Silica.

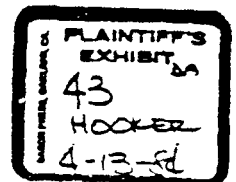
In addition, working with spoxies may give off fumes which may become toxic to certain types of individuals. In all our pipe plants, we have attempted to set up adequate equipment to protect our employees in line with accepted commercial techniques.

We are assuming that these hazards have been taken into account in the design of your asbestos cement operations.

Very truly yours,

W. L. Vanderbeek
Vice President and
Production Manager

WEL/lm



CANADIAN JOHNS-MANVILLE CO. LIMITED

P.O. BOX 1500
ASBESTOS, QUE.

KARL V. LINDELL
CHAIRMAN OF THE BOARD

RECEIVED

JUN 10 1968

OFFICE OF THE
PRESIDENT

June 4, 1968

Dear Sir:

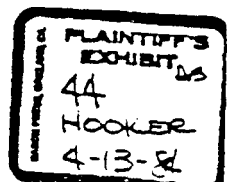
We would like to advise that, to date, we have forwarded to you documents (list attached) regarding the biological effects of asbestos.

Should you not have received one or several of these documents, please advise the undersigned so that we can correct the situation as promptly as possible.

Sincerely,

Karl V. Lindell

Chairman of the Executive Committee
Institute of Occupational & Environmental Health



May 2, 1968.

Following is a list of all the literature we sent to the persons on the attached list :

1. S. 2864 - A Bill - January 23, 1968
2. Fact Sheet... for members of Congressional Action Committees re "Labor Legislation" - dated Feb. 28/68 and having No. 204
3. Statement by Wm. H. STEWART -- Feb. 20/68
4. Statement by Arthur P. GILDEA -- Feb. 28/68
5. Statement of the American Industrial Hygiene Association on Occupational Safety & Health Act of 1968 -- Feb. 28/68
6. Statement on Occupational Safety & Health Act of 1968, presented by Leo TEFLOW -- Feb. 29/68
7. Statement of Miriam SACHS, M.D. -- Feb. 28/68
8. Statement by J. Sharp QUEENER -- Feb. 29/68
9. Statement of the National Association of Manufacturers before House Committee on Labor -- Mar 5/68
10. Statement by R. Lomax WELLS, M.D. -- Mar. 5/68
11. Statement by Alan BURCH - Mar. 6/68
12. Statement of Donald C. O'HARA -- Mar. 6/68
13. Statement by John O. LOGAN -- Mar. 7/68
14. Statement of Frank BURKE -- Mar. 8/68.
15. Statement of Anthony MAZZOCCHI -- Mar. 7/68
16. Statement of John J. HANLON, M.D., M.P.H., -- Mar. 11/68
17. Statement of the Industrial Medical Association -- Mar. 11/68
18. Statement of the American Academy of Occupational Medicine - Mar. 11/68
19. Statement of Lloyd D. UTTER -- Mar. 11/68
20. Statement of Ricardo M. MONTOYA -- Mar. 13/68

21. Statement of Joseph V. MORESCHI -- Mar. 13/68
22. Statement by George MEANY -- Mar. 14/68
23. Statement by Hawey A. WELLS, Jr. -- Mar. 14/68
24. Statement of the Government Employees' Council, by John A. McCart -- Mar 11/
25. "Up and Down Wall Street" - excerpt from "Barron's" page 27
26. Pneumoconiosis Research Unit - Asbestos & Cancer - Feb. 22/67
27. Problems Arising From The Use of Asbestos, memorandum of the Senior Medical Inspector's Advisory Panel, London
28. Dr. McDonald's 1st year progress report to Executive Committee -- Feb. 2/68
29. "ASBESTOS" Bodies : Their Nonspecificity excerpt from American Industrial Hygiene Association Journal - Nov. Dec. /67
30. "Asbestos Found In Urbanites' Lungs", - Toronto Star - Mar. 27/68
31. Report of Proceedings of the 21st Convention of International Association of Heat & Frost Insulators & Asbestos Workers - Sep. 5-7/67
32. Asbestosis Research Council, 10th Annual Report - Oct. 1/66 -- Sep. 30/67
33. On-Job Health Peril Is Cited at Hearing - Washington Post, Feb. 21/68
34. Occupational Safety & Health - House hearing No. 5 - by National Association of Manufacturers -- Mar. 5/68
35. Letter from United Steelworkers of America, from Frank Burke -- Jan. 3 /62
36. Pleural calcifications connected with exposure to asbestos dust... No. 2721
37. Research on Health Effects of Asbestos No. 2818
38. Pleural calcifications in Asbestosis... No. 2779
39. Community Effects of Non-Occupational Environmental Exposure... No. 2774
40. Effect of Some Industrial Dusts on the Dehydrogenase Activity and Oxygen Consumption by Cells Obtained from the Peritoneal Cavity of Albino Rats... No. 2814

41. Evaluation of the Usefulness of Membrane and Fibrous Filters for Concentration Measurements of Industrial Dusts of Different Shape...No.2813
42. Ovarian Cancer and Asbestos...No. 2758
43. Talc in Atmospheric Dusts, by H. Windom, etc. ...Nov. /67
44. Statement by Dr. Irving J. SELIKOFF, before the House Committee on Education & Labor.... Mar. 7/68
45. Asbestos Exposure, Smoking and Neoplasia, By Dr. I.Selikoff, MD, JAMA ,April 8/68
46. Book : "Research On Health Effects of Asbestos".

H. Heilmann
~~2500~~
Krebs

45

DRAFT
3/8/72

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
PUBLIC HEARINGS ON PROPOSED REGULATIONS
CONCERNING ASBESTOS DUST
WASHINGTON, D. C. - MARCH 14, 1972
STATEMENT OF JOSEPH G. HALL

My name is Joseph G. Hall. I am Group Vice President of GAF Corporation's Building, Flooring and Industrial Products Divisions. I have been associated with GAF for years and have been involved with asbestos products and their manufacture for years.

GAF appreciates the opportunity to participate in your public hearings on the Proposed Asbestos Regulations. We want to cooperate in this important area and to assist in the writing of Standards which are both practical and yet protect the health of employees.

I would like first to give you a brief outline of GAF activities and policies.

GAF Corporation is a worldwide company which manufactures and distributes a wide range of products in five related consumer and industrial market areas. The areas are: chemicals, building materials, photographic

film and equipment, office systems, and industrial products. The common bond uniting the product groups is chemical research and technology, from which GAF's "congeneric" nature evolved. Headquartered in New York City, we employ approximately 20,000 persons.

At its more than 70 manufacturing and processing plants throughout the United States, GAF endeavors to be a responsible member of the business community. In fact, the company's Management Policy specifies that GAF "will continue to do its utmost...to be a cooperative and useful citizen of the communities in which it operates and to contribute to the progress and welfare of these communities."

We have met pollution control requirements as promptly as possible to the extent permitted by existing technology. Sometimes, solutions to problems must be delayed until the technology of how to solve the problem has been developed.

Overall, GAF spent about \$5 million last year and will expend in the neighborhood of \$6 million this year on environmental control equipment.

I cite these figures only to illustrate that my company is totally committed to its role of a responsible and concerned citizen.

The ever-changing and sometimes conflicting regulations of the many agencies operating in the environmental control field necessitates our having a fulltime staff of corporate environmental engineers to update and modernize our equipment and facilities to meet standards. This effort also includes research in those areas where there is presently no technology to combat certain problems.

The GAF Building, Flooring and Industrial Products Divisions utilize asbestos in the manufacture of a number of products. These products consist of the following: (1) asbestos cement products, consisting of siding, flat sheets, canal bulkheading and simulated brick facing; (2) asbestos felt and millboard; (3) asphalt paints and plastics; (4) vinyl asbestos floor tile and sheet flooring; and (5) asbestos fiber.

We employ 4,000 employees at 15 asbestos product plants and the asbestos mine, and have sales of products containing asbestos of approximately \$110,000,000. Our customers include many thousands of distributors, con-

tractors and retailers. The proposed regulations will seriously affect their operations, as well as those of GAF. In addition, the above plants are supplied by several hundred vendors from whom we make purchases amounting to over \$30,000,000 yearly.

Since we will be submitting, for the record, a detailed written statement, I will highlight our position as to the Proposals.

GAF has in past years, spent several million dollars on asbestos dust control and believes it will be able to comply with a five (5) fiber Standard, except for an asbestos mine in Vermont, with the expenditure of an estimated \$2.2 million dollars. However, this standard cannot be fully met for at least two years due to the time necessary to design, order and receive abatement equipment. Only after reaching the five (5) fiber Standard would it be possible to ascertain the feasibility of further reduction in emissions based on accurate monitoring and design information gained. If a further reduction was later called for, the progress would have, of necessity, to be considerably slower. We believe that a standard substantially below five (5) fibers cannot be generally achieved in this decade and that such a reduction could only be accomplished at a cost which would make questionable, the economic feasibility of continued operation of certain of our facilities.

Maximum emission levels have been studied for years by a number of eminent doctors. Doctors have concluded that the former 12 fiber limit was not adequate. They have not agreed, however, that it is necessary to go below the five (5) fiber Standard. We request that further medical study be carried out so that a consensus can be reached as to the proper limit. At that time, if a new limit is required, it could be set with a realistic time schedule for achievement.

In addition, I am extremely concerned with the possibility that a label will be required to be placed upon asbestos-containing products. I strongly request that this be reviewed in light of the "locked in" nature of the asbestos in many products and the deleterious effect a warning label would create with regard to distribution of these products in the marketplace. GAF does not oppose labels when they serve a legitimate purpose as shown by our longstanding practice of labelling bags of asbestos fiber, but I see no reasonable purpose to be achieved by a label on products in which the asbestos is thoroughly bonded. A warning label, in our opinion, would seriously affect the future marketing of a number of our products. Vinyl flooring, for instance, is often sold directly to the consumer and contains ^{more than} ~~only~~ 5% asbestos which is securely "locked in". There is no evidence of hazard related to the application or use of vinyl flooring and

other "locked in" products, nor in our judgement is there any potential hazard due to the nature of those products. A label on flooring in particular would be highly misleading to the public, ruinous to the entire resilient flooring industry and would mean the loss of many jobs and possible plant closings. Where there is no need, there should be no label.

It is important for you to have an understanding of the size and importance of the asbestos industry. Asbestos serves hundreds of essential uses and has brought safety from the hazards of fire to all of us. Asbestos constitutes a billion dollar industry and provides the livelihood for many thousands of workers. It is a strong, durable, flexible and fire resistant material. It is unique in the sense that no other material duplicates all of its useful qualities.

On the other hand, we do not question the potential adverse effect on health of this material when one is exposed for many years to significant concentrations of free fibers. In this regard, raw asbestos fiber should be controlled as well as any dangerous emissions from asbestos-containing products.

In conclusion, GAF does not oppose reasonable standards which are responsive to the problems and upon all the facts. Our statement, which

we are submitting for the record, has been assembled within a very brief time period since the emergency standard was enacted in December and subsidiary recommendations were published as recently as 2 1/2 weeks ago, when the Advisory Committee issued its Recommendations. More time is needed for study by GAF and, in our opinion, by the Labor Department. GAF Corporation pledges its cooperation to the Department of Labor and requests that all the facts be considered before a standard is enacted, and that each standard, when enacted, will regulate only the problem areas and not needlessly penalize workers and industry through enactment of superfluous controls.

Thank you.

**RESILIENT
FLOOR
COVERING
INSTITUTE**

1030 15th Street NW • Suite 350
Washington DC 20005

202 833 2636

August 10, 1977

TO: RFCI Members
SUBJECT: NIOSH list of Products

Please find enclosed list of trade name products containing carcinogens regulated by OSHA.

The majority of the items noted contain asbestos, some of which are cements and felts. It is perhaps a matter of time until producers of floor coverings will make the NIOSH list on the asbestos issue.

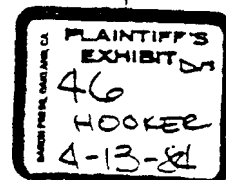
Kind regards.

R. D. Maurer

Robert D. Maurer
Managing Director

RDM:tm
encl:

Submitted to:
Resilient Floor Institute



10,931 NIOSH LISTS TRADE NAME PRODUCTS CONTAINING CARCINOGENS
REGULATED BY OSHA

Trade Name	Manufacturer	Percentage Carcinogen
Adco seal II-100	Adco Michigan	6 Asbestos
Aerobond 2191 Part A	Adhesive Engineering Co.	9 Asbestos
All purpose joint system	Hamilton Materials Inc.	1 Asbestos
Alum anatia 301 asbestos fibred aluminum roofing	Republic Powdered Metals Inc.	11 Asbestos
Aluminum asbestos	Standard Oil Co.	30 Asbestos
Aluminum roof coating	Johns-Manville Corp.	7 Asbestos
Aluminum roof coating	Monsey Products Co.	10 Asbestos
Aluminum roof coating	Mortell Co.	3 Asbestos
Ameleo adhesive	American Elastomer Co.	8 Asbestos
Armstrong epoxy resin A-6 & activator	Armstrong Products Co. Inc.	25 Asbestos
Armstrong tile cement S-90	Armstrong Cork Co.	8 Asbestos
Asbestic cement	Johns-Manville PDTS Corp.	10 Asbestos
Asbestos 7R-05	Johns-Manville Corp.	99 Asbestos
Asbestos fibrous roof and equidation coating	Johns-Manville Corp.	5 Asbestos
Asbestos plastic floor cement	Midwest Products of Illinois	19 Asbestos
Asbestine 325 (3X)	International Tale Co. Inc.	25 Asbestos
Asbestine	Pfizer, Inc.	99 Asbestos
Asbestos fiber 7R06	Johns-Manville PDTS Corp.	99 Asbestos
Asbestos fibre shorts 7M-90	Thompson-Hayward Chemical Co.	99 Asbestos
Asbestos No. 352	Johns-Manville Corp.	99 Asbestos
Asbestos plastic roof cement	De Witt Products Co.	14 Asbestos
Asphalt flashing cement	Karnak Chemical Corp.	25 Asbestos
Asphalt plastic cement No. 050	American Petroleum	13 Asbestos
Rabbitrite #30	Rabbitrite Products Co.	7 Asbestos
Barret aluminum roof coating	Celotex Corp.	9 Asbestos
Barret F22056 wall covering cement	Celotex Corp.	9 Asbestos
Benzoiline base	Allied Chemical Corp.	99 Benzidine
Bitucote sealer	Bitucote Products Co.	3 Asbestos
Black plastic cement	Johns-Manville PDTS Corp.	10 Asbestos
Blackline plastic roof cement	Southern Protective Patts Corp.	5 Asbestos
Blind nailing cement	Monsey Products Co.	12 Asbestos
Blue strip 371-81	Reliance Universal Inc.	56 Chloroethylene
Blue 1 - master C-155 series	National Starch & Chemical	2 Asbestos
Bond master W1371 adhesive	National Starch & Chemical	12 Asbestos
Buffing & Polishing compound	Harrison Co. Inc.	1 Asbestos
Bull's eye plastic cement	Gardner-Martin Asphalt Corp.	10 Asbestos
Butyl lite butyl rubber caulk	Dunn-Rainey Co. Inc.	1 Asbestos
C-13-C4 Hydrant S00-13	Flintkote Co.	3 Asbestos
CM Sealer	Bidco Sealants	45 Asbestos
Calidra resin grade 244	Union Carbide Corp.	92 Asbestos
Carbonite packing material	Anchor Packing Co.	46 Asbestos
Carbazine No. 11 green 2G4516	Carboline Co.	5 Asbestos
Carey mastic heavy trowel grade damp resistant coating	Celotex Corp., The Phillip Carey Co. Div.	15 Asbestos
Cellulow	Cellulo Co.	80 Asbestos
Celostat 400 birch	Laurence-David Inc.	3 Asbestos
Ceramic and quarry floor tile cement	Chicago Mastic Co.	2 Asbestos
Cermite	International Tale Co. Inc.	20 Asbestos
Chalking-glazing compound	Tremco Mfg. Co.	2 Asbestos
Chemical sealing SM-902	Chemical Sealing Corp.	1 Asbestos
Chemyc 450	Goodyear Tire & Rubber Co.	47 Chloroethylene
Chemyc - #3	Cellulo Co.	50 Asbestos
Coal control regal	Mortell Co.	4 Asbestos
Cold application cement	Johns-Manville Corp.	10 Asbestos
Cold application cement No. 203	Henry, W W Co.	1 Asbestos
Concrete 1170 parts A & B	Adhesive Engineering Co.	4 Asbestos
Concrete No. 1 Part A	Adhesive Engineering Co.	2 Asbestos

10,931

© 1977, Commerce Clearing House, Inc.

Trade Name	Manufacturer	Percentage Carcinogen
Cooling system sealer	Penray Co.	4 Asbestos
Cope seal	Rideo Sealants	34 Asbestos
Culvert pipe joint compound talente	Hydro Conduit Corp.	14 Asbestos
Custom seal cope seal	Bitco Sealant Inc.	37 Asbestos
D-931 Undercoating	Mostell Inc.	5 Asbestos
Dayco wood filler golden oak	Day, James B. & Co.	8 Asbestos
Double coverage cement	Karnak Chemical Corp.	10 Asbestos
Durex flashing cement	Metropolitan Roofing Supplies	23 Asbestos
Duxseal sealing compound	Johns-Manville Corp.	50 Asbestos
Dynel	Union Carbide Corp.	60 Chloroethylene
E905	Protective Treatments Inc.	1 Asbestos
Ebilond 122	Furane Plastics Inc.	20 Asbestos
Elastic roof sealer	Monsey Products Co.	20 Asbestos
Elastigum roof coating	Celotex Corp.	5 Asbestos
Elastigum roofing cement	Celotex Corp.	20 Asbestos
Epihond 1210	Furane Plastics Inc.	5 Asbestos
Epocast 2-D	Furane Plastics Inc.	1 Asbestos
Epoxo floor coating-orange	American Abrasive Metals Co.	1 Asbestos
Exterior caulk 2341	Southern Protective Pds Co.	1 Asbestos
FM-37 Core splice adhesive form covering	AM Adhesive Metals Co.	1 Asbestos
Falcon expo-non slip coating	American Cyanamid Co.	8 Asbestos
Fedrox safety floor and deck	American Abrasive Metals Co.	1 Asbestos
Fibre glass roof crating	Monsey Products Co.	1 Asbestos
Firetite asbestos furnace cement	Johns-Manville Corp.	2 Asbestos
Fisher specification 1145	Chemical Sealing Corp.	26 Asbestos
Fisher specification 1237	Chemical Sealing Corp.	10 Asbestos
Fisher specification 1300 deadener	Mortell Co.	2 Asbestos
Fisher specification 1309	Chemical Sealing Corp.	5 Asbestos
Fisher specification 1486	Mortell Co.	8 Asbestos
Fixative concentrate 1852	Roymal Co.	34 Chloroethylene
Flexigum roof coating	Celotex Corp.	5 Asbestos
Fruehauf adhesive compound	Siedi Products	1 Asbestos
GS-3 Aircraft sealant	General Sealants Inc.	10 Asbestos
GT-40-S Power roll cam cleaner-lube	Ames Supply Co.	55 Chloroethylene
Geon 222	Goodrich, B. F. Co.	60 Chloroethylene
Geon 552	Goodrich, B. F. Co.	54 Asbestos
Glazing compound	Deshler Products Co.	2 Asbestos
Gray metal sash putty	Pecora Chemical Corp.	3 Asbestos
Grip master cement	Lca Mig Co.	2 Asbestos
Gripmaster polishing wheel cement	Lea-Michigan Inc.	2 Asbestos
Grizzly saltgrip #16037	Maremont Corp., Grizzly Div.	57 Asbestos
Handi-Gard asbestos roof	Handi Products Co.	6 Asbestos
Heavy duty roofing coating	Southwestern Petroleum Corp.	5 Asbestos
Heavy duty sealer	Penray Co.	2 Asbestos
Hercules asbestos furnace cement	Hercules Chemical Co.	7 Asbestos
Hercules sta put plumbers putty	Hercules Chemical Co. Inc.	16 Asbestos
High velocity 10-108	Chicago Mastic Co.	2 Asbestos
Hycar 124 x 11	Goodrich, B. F. Co.	29 Chloroethylene
Hydrocide plastic heavy fibrated bituminous lamproofing compound	Sonneborn Building Products	4 Asbestos
Hydrocide semi-mastic semi- fibrated asphalt	Sonneborn Building Products	3 Asbestos
Hydro-seal black cement	Gillson Human Co.	9 Asbestos
IPM #33	Gib-on Homans	9 Asbestos
Insulhote summer grade	Johns-Manville Corp.	15 Asbestos
Insulhote-tic	Armstrong Cork Co.	5 Asbestos

Trade Name	Manufacturer	Percentage Carcinogen
K-92	Kalman Paint & Chemical Co.	4 Asbestos
K-326	Kalman Paint & Chemical Co.	2 Asbestos
K-361	Kalman Paint & Chemical Co.	2 Asbestos
K-682	Kalman Paint & Chemical Co.	2 Asbestos
Karnak flashing cement	Karnak Chemical Corp.	25 Asbestos
Karnak insulation adhesive	Karnak Chemical Corp.	10 Asbestos
Karnak plastic flashing cement	Karnak Chemical Corp.	16 Asbestos
Karnak trowel mastic S6	Karnak Chemical Corp.	19 Asbestos
KAYLO	Owens-Corning Fiberglas Corp.	15 Asbestos
KAYLO 17	Owens-Corning Fiberglas Corp.	11 Asbestos
Knickerbocker roof coating	Seaboard Plastics Corp.	1 Asbestos
Liquid asbestos fiber roof coating	De Witt Products Co.	4 Asbestos
Loomie tale	International Tale Co. Inc.	25 Asbestos
Luxall fix it plastic cement	National Mfg. Corp.	12 Asbestos
M242 Elastic glazing compound	Pecora Chemical Corp.	3 Asbestos
MS plastic	Union Chemical & Oil Co.	20 Asbestos
Mack 2310-45	Mortell Co.	16 Asbestos
Manla tradesman plastic roof cement	Seaboard Plastics Corp.	19 Asbestos
Manus bond safety step non-slip paint-black	Manus Products Co.	4 Asbestos
Marinero coatings-aluminum and mastic R-13	Unicorn Chemical Coating Inc.	10 Asbestos
Mastic	Overall Paint Inc.	16 Asbestos
Metal deadener #513	Intercoastal Paint Corp.	9 Asbestos
Metal duct sealer gray 10-104	Chicago Mastic Co.	2 Asbestos
Metallic sealant	Imprex Inc.	2 Asbestos
Monsey roof fix	Monsey Products Co.	10 Asbestos
Mortite 71DBR	Mortell Co.	25 Asbestos
Muffler compound	Mortell Co.	28 Asbestos
Nicolet asbestos pipe line felt No. 15	Nicolet Industries	69 Asbestos
No drip tape	Mortell Co.	16 Asbestos
No. 1-723 Light gray anti-skid	Matrote Co. Inc.	7 Asbestos
No. 7 Roof cement	Kutland Fire Clay Co. Inc.	31 Asbestos
No. 15 Asbestos finishing felt-perforated	Johns-Manville Corp.	80 Asbestos
No. 145-100 Stapon C tank coating white base	Standard Paint & Varnish	1 Asbestos
No. 145-101 C Stapon C tank coating blue base	Standard Paint & Varnish	1 Asbestos
No. 202 Tinner seal	Imprex Inc.	2 Asbestos
No. 351 cement	Johns-Manville Corp.	99 Asbestos
No. 352 Mortar	Johns-Manville Corp.	99 Asbestos
No. 929 Textured vault spray	L & W Paint Products Co.	3 Asbestos
No. 1248 Vinyl	Lilly Industrial Coating Inc.	23 Chloroethylene
Noah's pitch	Celotex Corp.	10 Asbestos
Nylode NY-1/A&B/20/BK 2009	Dart Industries Inc.	20 Asbestos
OEM aluminum roof coating	Electric Paint & Varnish Co.	5 Asbestos
PTI 707 Architectural sealant	Protective Treatments Inc.	1 Asbestos
Pahco wet-surface plastic	Napeo Corp.	10 Asbestos
Palmer mirror mastic	Palmer Asbestos & Rubber Corp.	6 Asbestos
Pec Ka HC 158 butyl rubber	Pecora Chemical Corp.	3 Asbestos
Pecora acitite cement type QD 2500 F	Pecora Corp.	2 Asbestos
Pecora blk special mirror mastic	Pecora Chemical Corp.	32 Asbestos
Perm-E-Elastic glazing compound	Section Model Products Co.	6 Asbestos
Perm seal caulking compound	Timesaver Products Co. Inc.	5 Asbestos
Perma gum chords	Virginia Chemicals Inc.	40 Asbestos
Permagum sealant	Inunont Corp.	30 Asbestos

Trade Name	Manufacturer	Percentage Carcinogens
Perma-seal Caulking compound knife grade #26 gray	Timesavers Products Co. Inc.	8 Asbestos
Permatex pipe joint compound	Permatex Inc.	3 Asbestos
Permuroi wet surface type	Republic Powdered Metals Inc.	2 Asbestos
Phoenix asphalt plastic cement	Fry, Lloyd A Roofing Co.	18 Asbestos
Plastic elasticum	Celotex Corp.	16 Asbestos
Plastic roof cement	Alcatraz Co. Inc.	15 Asbestos
Plastic roof cement	Henry, W W Inc.	5 Asbestos
Plastic roof cement	Coopers Creeks Chemical Corp.	10 Asbestos
Plastic roofing cement	Celotex Corp.	20 Asbestos
Plastic roofing cement	Johns-Manville Corp.	20 Asbestos
Plastic roofing cement	Overall Paint Inc.	16 Asbestos
Plastic roofing cement No. 204	Henry, W W Inc.	4 Asbestos
Plastiseal expanding joint compound	Johns-Manville Corp.	10 Asbestos
Presstite products 440, Z2 sealer	Inmont Corp.	2 Asbestos
Pressure sealer IC 450	Rirma Products Corp.	7 Asbestos
Pro seal 700	Teledyne Inc.; Teledyne Const. Pro-Seal Div.	5 Asbestos
Quaker coat undercoating	Quaker State Oil Refining Corp.	10 Asbestos
Quaker coat solvent type undercoating	Southwest Grease & Oil	22 Asbestos
Quakercote emulsion type undercoating	Quaker State Oil Refining Corp.	10 Asbestos
RBH 5411 Medium chrome green	Inmont Corp.	20 Chloroethylene
RBH 5413 Chrome yellow paste	Inmont Corp.	15 Chloroethylene
RBH 5414 Light chrome yellow	Inmont Corp.	15 Chloroethylene
RBH 5415 Molybdate orange	Inmont Corp.	13 Chloroethylene
RBH 5430 Vinylite paste	Inmont Corp.	20 Chloroethylene
wachitung red		
Radiator sealer	Permatex Inc.	1 Asbestos
Kelly coat rain patch 406 NTP	Gilsonite Inc.	14 Asbestos
Roof cement	Dewitt Products Co.	14 Asbestos
Roof coating asphalt	American Petrofina	6 Asbestos
Roof finish roofing cement	Monsey Products Co.	10 Asbestos
Roof fix coating	Monsey Products Co.	4 Asbestos
Roof kooter 732-00	Grow Chemical Corp.	5 Asbestos
Roof patch	Garland Maintenance Products	11 Asbestos
Roof preservative, tar & asphalt types	Tremco Mfg. Co.	4 Asbestos
Rutland No. 4 roofing cement	Rutland Fire Clay Co. Inc.	12 Asbestos
SC-150	Reliance Universal Inc.	30 Asbestos
SG-210 Sealant	General Sealants Inc.	5 Asbestos
S. I. S. cement	Celotex Corp.	10 Asbestos
SM 475 Sealer	Chemical Sealing Corp.	5 Asbestos
SM-856 Chemical sealing	Chemical Sealing Corp.	16 Asbestos
Santo flex 13	Monsanto Co.	24 Aminoalkylphenyl
Saran	Amtech Inc.	13 Chloroethylene
Sherwin Williams kemak (R) hard set B D65YA	Sherwin-Williams Co.	8 Asbestos
Stainless Putty	Black Swan Manufacturing Co.	3 Asbestos
Supercote roof preservative	Garland Maintenance Products	2 Asbestos
TL-500-27-14 olivetti gray	Sprayon Inc.	16 Chloroethylene
TL-500-6-6 Medium raphael blue lique	Sprayon Inc.	16 Chloroethylene
TL-500-4-10 Faliter 2 blue	Sprayon Products Inc.	16 Chloroethylene
TL-500-27-19 Praxis gray	Sprayon Inc.	16 Chloroethylene
TL-500-27-24 Dove gray	Sprayon Inc.	16 Chloroethylene
TL-500-42-2 Lexicon tan	Sprayon Inc.	16 Chloroethylene
TL-500-42-4 Sandstone beige	Sprayon Inc.	16 Chloroethylene
Talcote cold plastic sewer joint compound	American Petrofina	18 Asbestos

Trade Name	Manufacturer	Percentage Carcinogen
Thermobestos pipe insulation	Johns-Manville Corp.	7 Asbestos
Thixon II	Wittaker Corp., Dayton Chemical Products Div.	12 Methylenebis (2-Chloroaniline) 4.4'
Tile seal T-25LW	Radiator Specialty Co.	26 Asbestos
Topaz G77HC114	Sherwin-Williams Co.	50 Chloroethylene
Transite conduit joint sealing compound	Johns-Manville PDTS Corp.	10 Asbestos
Tremco glazing compound dark green	Tremco Mfg. Co.	2 Asbestos
Tremco mastic roof cement	Tremco Mfg. Co.	15 Asbestos
Tremco 102 texture coating	Tremco Mfg. Co.	13 Asbestos
Tremco seam sealer	Tremco Mfg. Co.	2 Asbestos
Tremco tremfix emergency roof repair mastic	Tremco Mfg. Co.	16 Asbestos
Tremfix emergency roof repair mastic	Tremco Mfg. Co.	16 Asbestos
Tropical roofkooter	Grow Chemical Corp.	5 Asbestos
Tru-seal	Elixer Industries	13 Asbestos
Tuff kote white	Tuff Kote Co. Inc.	8 Asbestos
UF-1120	Thiokol Chemical Corp.	41 Asbestos
Unibestos	Pittsburgh Corning Corp.	71 Asbestos
Unipar mills-70168	Parker-Hannifin Corp.	2 Asbestos
V5233 Dulling agent top coat	R A Chemical Co.	12 Chloroethylene
VS 6001 cement	Moyen, C. P. Co.	30 Chloroethylene
Vulcatex P. G. caulking compound	Grace, W. R. & Co.	30 Asbestos
Wall board adhesive No. 36	Ohio Sealants Inc.	12 Asbestos
Wards brake shoes	Raybestos-Manhattan Inc.	46 Asbestos
Weatherized plastic cement	Celotex Corp.	1 Asbestos
Weatherproofing compound C 13A	Flintkote Co.	8 Asbestos
Weldfast Cl. 210	Youngstown Sheets & Tube Co.	2 Asbestos
White hydrosol #559	Pabco Paint Corp.	8 Asbestos
Winter plastic	Union Chemical & Oil Co.	18 Asbestos
Wood filler paste	Lawrence-McFadden Co.	19 Asbestos
5K04 Asbestos	Johns-Manville Corp.	99 Asbestos
7K05 Asbestos	Johns-Manville Corp.	99 Asbestos
EA Resin	Magnolia Plastic Inc.	1 Asbestos
EB Catalyst	Magnolia Plastic Inc.	3 Asbestos
#54 Acoustic R-200	Roach Paint Co. Inc.	9 Asbestos
6572 Magnesium insulation	Johns-Manville Corp.	15 Asbestos
#113-2 Epoxy	Ahlestick Laboratories	9 Methylenebis (2-Chloroaniline)
#16-5 Epoxy	Ahlestick Laboratories	17 Asbestos
2143R Base	Adhesive Engineering Co.	10 Asbestos
No. 352-7M Refractory cement	Johns-Manville PDTS Corp.	99 Asbestos
421, S1	Inmont Corp.	7 Asbestos
600 Putty	Dunn-Rainey Co. Inc.	1 Asbestos
622 Tough film mortex	Mortell Co.	3 Asbestos
#613WR Wet patch plastic cement	Marvin Corp.	23 Asbestos
#75S Asphalt	Intercoastal Paint Corp.	6 Asbestos
2200 French provincial wiping stain 54-100-181	Reliance Universal Inc.	2 Asbestos
2510-45 Insulmat	Mortell Co.	12 Asbestos
5030 Hardener	Philadelphia Resins Co. Inc.	27 Asbestos
5030 Resin	Philadelphia Resins Co. Inc.	25 Asbestos