PLAINTIFF'S EXHIBIT
WRG-1255

ZONOLITE DIVISION

TO All Salesmen
Central Region

DATE July 16, 1970

FROM J. A. Mc Eachern

SUBJECT

CC: Wm. Bourke
Bob de Bastian
T. F. Egan

Gentlemen:

Attached is a copy of an article published in the July issue of "Today's Health" the official publication of The American Medical Association. This article concerns Sprayed Fireproofing. Even though the article is devoted to asbestos fibers and their effect on the health of asbestos workers and the general public the photographs shown in the article are of the IBM Building in Chicago which is using Zonolite Mono Kote for fireproofing.

Also attached is a copy of Bill Bourkes report indicating the work he had to do in order to combat this situation which implies that Mono Kote as well as all sprayed fireproofing products are guilty.

I think it would be a good idea for each of you as you make your calls to point out to architects, plastering and fireproofing contractors, general contractors and building officials that Zonolite Mono Kote is not a sprayed asbestos fiber product and does not contaminate the atmosphere nor does it cause lung cancer. By doing your home work now you might be able to prevent a rather panicky situation sometime in the future when one of your jobs could possible be shut down.

Sincerely yours,

John a. Mc Eachern

JAM:tm
enclosure

A Cancer Threat Greater Than Cigarettes?

If you live in the city, you probably have asbestos in your lungs and it will be there forever. Some distinguished scientists are worried about it as a cancer threat.

by F. GLEN LOYD



Photo: Joe Fletcher

Air is contaminated as asbestos insulation is sprayed on skeleton of Chicago highrise.

ON EARTH DAY eve in Chicago, a construction company started spraying the steel skeleton of a major new building with asbestos—a fibrous mineral which causes lung cancer in industrial environments.

Unlike carcinogens such as coal tar and benzpyrene, asbestos fibers are insoluble when inhaled. The fibers are sharp and stiff, and remain in place for years, stabbing the cell walls with each respiratory movement.

Just across the street from the new building, the *Sun Times* assessed the pollution problems facing Chicago—except for the asbestos insulation waste which fell like a snow mist on its reporters as they entered and left the building.

It is still snowing asbestos from the highrise. The fibers fall on business people and shoppers passing by. Residents of nearby Marina City apartments get doused with it when they step onto their balconies. And it floats down the street to subway air vents. As the asbestos men work their way up the 40-story structure, the wind spreads the asbestos waste over a greater radius of the downtown area.

Such snowfalls are taking place in other parts of the city and throughout cities all across the country. This year, more than half of all new highrises under construction will be fireproofed with sprayed asbestos. And half of the spray used will become airborne waste.

"Asbestos is an important air pollutant," says Irving J. Selikoff, M.D., a pioneer in modern asbestos epidemiology and head of the Environmental Medicine Science Laboratory at New York's Mount Sinai School of Medicine. "In fact, it's the only common air pollutant that has been clearly identified to cause lung cancer in man."

Doctor Selikoff is immediate past president of the New York Academy of Science and winner of the 1955 Lasker Award for his part in developing a tuberculosis antibiotic. He and his staff have done electron microscopic studies of lung tissue of 28 deceased New York City residents. Each specimen had asbestos in it. "This means that contamination is now widespread," he says. "We have verified this by studying city air."

Doctor Selikoff cautions that finding such fibers only indicates contamination, not disease. "Such small amounts of asbestos in the lungs have not yet been proven hazardous. What such exposure may bring is not known. Disease associated with asbestos is rarely seen sooner than 20 to 30 years from the onset of exposure. Our concern is with the future.

"It may well be that very small amounts of asbestos will not be associated with any health hazard. But we shouldn't wait to find out. If contamination is seen to occur, we must control it as rapidly as possible. This would be prudent."

E. Cuyler Hammond, Sc.D., vice president of the American Cancer Society, candidly says that asbestos could be a greater problem than smoking. Studies by Doctor Hammond provided a basis for the 1964 surgeon general's report on the effects of cigarette smoking. "Where tobacco is in no way essential," he says, "asbestos would be hard to replace. It would be extremely difficult to build a skyscraper without asbestos. You could

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do it, but other insulation used would have to be so thick that you would lose much space."

Doctor Selikoff is called an alarmist by George Wright, M.D., a pulmonary disease specialist at St. Luke's Hospital in Cleveland. Doctor Wright is a medical consultant to a number of asbestos-producing and using industries and has been studying the asbestos problem since 1948. He is chairman of the scientific committee of Montreal's Institute of Occupational and Environmental Health and serves as a U.S. Public Health Service consultant in matters involving lung disease.

"The risk to the general public posed by the mostly intermittent exposure to the low concentrations of asbestos likely to be present in the ambient air has been exaggerated beyond the limits imposed by known facts," charges Doctor Wright.

"Some groups under heavier asbestos dust exposure than the general public have not developed increased frequency of cancer. For example, in a recent study of an asbestos textile mill population in England, low to moderately exposed groups showed no increase in lung cancer, whereas in the heavily exposed group the incidence was augmented eightfold.

"I'm all for control of dusty emanations. What I am opposed to are scare tactics."

As a direct result of advisories by Doctor Selikoff, New York recently became the first city in the country to enact asbestos regulations.

These regulations require that tarpaulins cover areas where asbestos is being sprayed, that waste asbestos be vacuumed and swept into closed containers, and that the containers be buried.

When these regulations were not met and forced shutdowns by the city's Environmental Protection Administration were imminent, all sprayed asbestos operations in the city ceased voluntarily. At the time of writing, the administration had scheduled talks with the sprayed insulation industry and experimental asbestosless insulation was under test on the 16th floor of the World Trade Center.

Containment of sprayed asbestos in city construction may turn out to be impossible, says Neal Fabricant, legal counsel for the administration. "In that case, new insulation material will have to be used, or the builders will have to go back to the old method of coating the steel beams with cement."

The Philadelphia Department of Public Health and the San Francisco Department of Public Works are working on asbestos regulations similar to New York's. A spokesman for the Chicago Department of Environmental Control told TODAY'S HEALTH that he had not been aware of the alleged threat of asbestos to the general public but that he would look into the matter immediately. The National Air Pollution Control Administration is developing criteria which will be used by states in enforcing asbestos air pollution control. Sloppy spraying, however, continues unchecked in most cities.

"Risking disease because of regular and direct exposure to asbestos," says Doctor Selikoff, who is middle-aged and gray, "are more than 100,000 industrial workers in the United States. Asbestos is not only used in insulation but is present as an invisible and anonymous ingredient in myriad industrial products such as cement, asphalt, and plastic."

Doctor Selikoff has found that one out of every five insulation workers in the New York-New Jersey metropolitan areas dies of lung cancer, and that almost half of the 368 deaths he has recorded among these men in the past 25 years have been caused by cancer of one type or another.

Citing these figures before a House subcommittee on labor in 1968, he warned *(Continued on page 71)*

Asbestos insulation being sprayed on a New York City high-rise contaminates air a quarter of a mile away at the Arts and Sciences High School. Building demolition is another source of asbestos air pollution. When out on their balconies, residents of Marina City apartments in Chicago are doused with asbestos from the new building across the street.





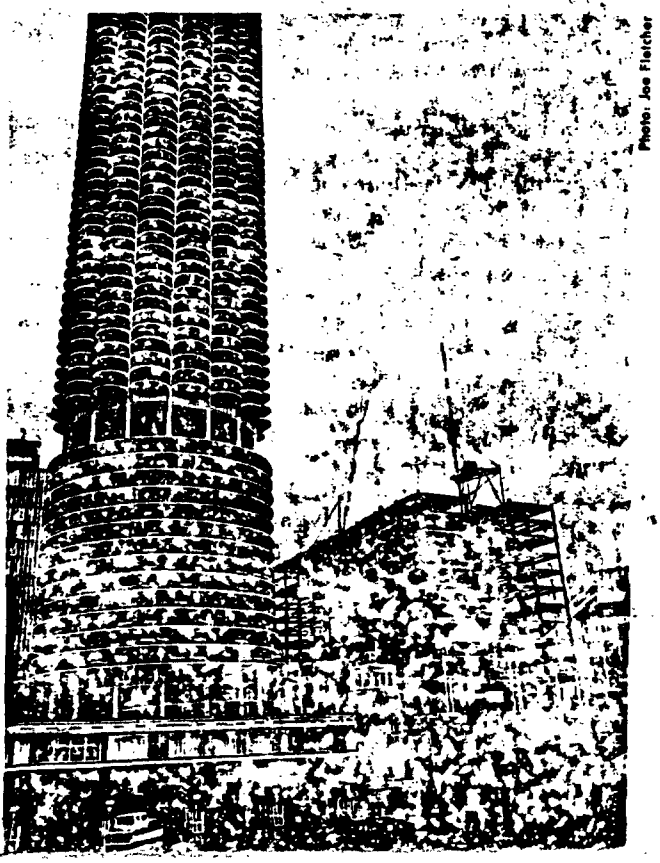

Photo: Joe Fletcher

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seminate facts and figures and other pertinent information regarding drugs and crime in general."

Clark W. Blackburn, general director, Family Service Association of America: "These broadcasts can be a valuable service to troubled families. They can also help people get involved in taking action to solve community problems or improve the social environment. When a parent is having difficulty with children or teenagers, a direct question to a qualified Family Life Consultant can help that parent get on the right track."

So, if you're baffled about a personal problem, just dial your friendly talk radio station. The communicaster and his large following of listeners and callers will come up with practical suggestions. And it won't cost you a penny! END

National Insurance

(Continued from page 28)

contribution plans 3.3 percent payroll tax on both employer and employee. The remaining estimated one-third would come from general treasury funds. The Griffiths AFL-CIO plan calls for a three percent contribution by the employer, one percent from employees, and a federal government contribution to match the employers' three percent. The Reuther committee's scheme, not yet congealed, will call for similar cost-sharing ratios.

The Javits plan, like the AMA plan, would retain free consumer choice and existing health coverage systems—"a national health insurance program is far more likely to emerge from Congress if we utilize existing health insurance companies," Javits has said.

Some observers feel the Javits plan is the most likely plan to emerge from Congress for another reason—in addition to being a middle-of-the-road measure between the AMA and the Reuther committee, it's Republican. It isn't the administration's plan, by any means, although the White House has moved a lot closer to national health insurance than the candidate Nixon's campaign speeches indicated was ever possible. HEW Undersecretary John Veneman in April presented to the House Ways and Means Committee an outline for a plan endorsing contracts with "health maintenance organizations" for prepaid services under Medicare. One of the authors of the proposal said the plan was being pushed because of a desire to head off national health insurance.

The Javits' proposal is known as the Javits-Rockefeller-Cohen plan, which is almost as interesting a proof that politics make strange bedfellows as the list of historical figures who have backed previous attempts at NHI legislation. Cohen, of course, was President Johnson's Secretary of Health, Education, and Welfare, and the "Father of Medicare." He's been authoring health legislation on the Democratic side—since the Wagner-Murray-Dingell attempts at an NHI system in the 40's and during Truman's administration. Nelson Rockefeller, the Republican governor of New York and a former presidential nominee, has, for several years, attempted to establish statewide comprehensive health insurance. It was his goading that persuaded the predominantly Republican National Governor's Conference to come out for "universal compulsory national health insurance."

And, though the Democrats through Ted Kennedy, Martha Griffiths, and big labor, have attempted to lay exclusive claim to the issue, Javits has carefully invoked Republicans past who worked for similar health legislation. He has pointed out that Teddy Roosevelt called for national health insurance in the campaign of 1912 and that Herbert Hoover, in his inaugural address, equated the right to public health with public education.

But, in the same paragraph of the same speech in which he mentioned Hoover, Senator Javits crossed the political road again and quoted a statement of Walter Reuther's which, he said, has come to be accepted by all proponents of national health insurance:

"The people of the United States have, in the last few years, made an addition to the Bill of Rights. The right to good health for all has become a stated national purpose and an integral part of national policy." Whatever their version of doing it, all those planning for nationwide health insurance would agree. END

The Asbestos Threat

(Continued from page 31)

that if they are projected to the country as a whole, and if no improvement in the health hazards these men face is achieved, we may look forward to perhaps 6000 deaths from lung cancer and to perhaps 15,000 deaths from cancer in general among men in this single asbestos trade alone in the United States."

Dr. William H. Stewart, former surgeon general of the United States, told the same subcommittee that the insulation workers are probably sharing their exposure—to a lesser degree—with more than 3.5 million other construction workers. These are steamfitters, electricians, welders, carpenters, ironworkers, plumbers, masons, tile setters, and so on, who are on the job when spraying takes place.

When Doctor Selikoff steps out of his lab, he leaves the impersonal, rigid ways of science behind. If he is citing scholarly statistics and senses that an individual or audience is not grasping their meaning, he throws in an earthy conclusion such as "this is terrible and shouldn't be tolerated." He crusades for change, yet observes that "there are many roads to utopia, but all must traverse the surface of the earth."

There is a physical facet of this handsome, distinguished-looking scientist which also works to humanize him for others. When he smiles, he is reminiscent of Ed Wynn.

Doctor Selikoff became interested in asbestos in 1953, during clinic work in Paterson, New Jersey. Seventeen of his patients were employed in a factory that had been making asbestos-insulation products since 1910. When the factory closed in 1951, the 17 men went into other work. Doctor Selikoff decided to continue his observation of these patients.

At the time, Doctor Selikoff explains, "I was not convinced of the relationship between asbestos and lung cancer. There wasn't much data, and what there was scarcely seemed to indicate that it would prove to be much of a problem."

He changed his mind. By 1961, six of the 17 men were dead, and today only six are alive. Of the 11 who died, eight were victims of cancer, and two of asbestosis, a nonmalignant lung disease brought on after inhalation of excessive concentrations of asbestos dust over many years. Of the six alive, two are disabled with respiratory insufficiency, and one has recovered from surgery for cancer.

"I was forced to the awful realization of what could happen to men who were occupationally exposed to asbestos," says Doctor Selikoff.

Considering that men installing such materials might also risk disease, he contacted officials of New York Local 12 and Newark Local 33 of the International Association of Heat and Frost Insulators and Asbestos Workers. "They urged me to make a study in depth of the effects of asbestos exposure among their members," Doctor Selikoff says.

"We have studied all members of the Insulation Workers Union in the New York metropolitan area. On December 31, 1942, there were 632 members of this union. Calculations in studies by L. Cuyler Hammond and Jacob Churg (chief pathologist at Barnert Memorial Hospital in Paterson, New Jersey) and myself indicated that by December 31, 1962, according to life expectancy in the general

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population of U.S. white males, there should have been 203 deaths among these men. Instead, there were 255—an excess of 20 percent. There should have been six or seven deaths due to cancer of the lung or pleura, a membrane encasing the lungs. Instead, there were 45. There should have been nine or 10 deaths due to cancer of the stomach or colon; there were 29. There should have been no deaths due to asbestosis; there were 12."

Similar calculations to mid-1967 gave similar results. Whereas 47 deaths were expected statistically, there were actually 91. Eight or nine deaths due to cancer were predicted, but there were 49. Once more, asbestosis claimed 15 lives against none expected.

"We also have found that there is a special risk of cigarette smoking among asbestos workers," says Doctor Selikoff. "Since 1963, we have observed 87 experienced insulation workers who were not regular smokers or were pipe or cigar smokers; we have yet to see a death from lung cancer among these men. On the other hand, of 283 equally experienced workmen who smoked cigarettes and who were watched for the same period of time, we have seen 24 such cancers, although only three were expected. We have calculated that the risk of dying of lung cancer is approximately 92 times greater for an asbestos worker who smokes cigarettes than a man of the same age who neither works with asbestos nor smokes cigarettes."

A series of germinal observations in the early 1960's suggested the possibility that asbestos was perhaps a risk to the community at large, too. One of the most important occurred in 1963 when Dr. J.G. Thomson, professor of pathology at the Medical School of the University of Capetown found evidence of asbestos in the lungs of urban residents who were not asbestos workers. Subsequent studies around the world have confirmed his findings.

In his report, Doctor Thomson noted that there had been a tremendous increase in the use of asbestos throughout the world, and that it was being used in an increasing number of industrial products with which the urban dweller came into daily contact. He suggested that automobile brake and clutch wear might be a major cause of the liberation of asbestos. He concluded that because of the continuous disintegration of asbestos products such as brake linings, floor tiles, and roofing materials, as well as the demolition of buildings containing numerous other asbestos products, asbestos was constantly finding its way into the atmosphere.

He predicted that mesothelioma—a tumor of the lining of the lung or abdominal cavities which is a common cause of death among asbestos workers—might become as frequent as cigarette-associated lung cancer is at the present time.

Doctor Thomson is an alarmist as well as Doctor Selikoff, according to Doctor Wright, the Cleveland pulmonary disease specialist. He says that finding evidence of asbestos in a large proportion of the general population has led to the contention that the augmented use of asbestos greatly increased public exposure to this fiber. "This assumption has been based upon the simple statistics of asbestos consumption with no attention being paid to how the fiber is used. Asbestos is used for the most part in fabrication of materials that are unlikely to become airborne. And there is subsequently very little opportunity for release of this fiber except by slow wear.

"During application or removal of certain products such as insulation, fibers are released and those in the immediate vicinity, workmen and public, may be exposed. However, the quantity of asbestos fiber used for 'such 'loosely bound' products has increased from 39,000 only to 55,000 short tons between 1920 and 1965. This is in contrast to the tremendous increase in fibers used in tightly-bound products from 85,000 short tons to 665,000."

Doctor Wright says that concern over exposure to large quantities of asbestos fiber liberated by the wear of automobile brake linings is unwarranted. "The amount of asbestos fiber used in friction material in the United States was estimated at less than five percent of the total in 1965. And the high heat of friction destroys the asbestos, converting it to material no longer having the characteristics of asbestos. The amount of asbestos fiber released by normal friction material wear must be small indeed.

"Serious exposures to asbestos fiber can occur in certain occupational and immediately adjacent environments but there is evidence that a low concentration of asbestos in the air breathed by the general public is not likely to be harmful."

Doctor Selikoff thinks that much of Doctor Wright's argument is correct, especially the safety of products where the asbestos is tightly locked in. "But," he says, "we should be prudent with potential contamination by asbestos where it may become airborne. At present we have no way of telling what the dose-disease relationships are. Is it better to have breathed in only 50 asbestos fibers than 50,000 or 50 million? Does each fiber have the potential of causing a cell with which it comes in contact to turn cancerous? The answers to these immensely complicated questions will have to come from epidemiology over a long period of time. An eightfold increase in asbestos production over the last 30 years would appear to make it likely that asbestos cancers will increase, but only the future will tell. Remember that current cases must be associated with inhalation that took place 20, 30, or more years ago, when world consumption of asbestos was only about 500,000 tons a year, and that the cancer associated with today's production of over four million tons a year will not be evident until the 1990's.

"Not long ago, we discovered that children in a number of kindergartens in New York, California, and other states were being allowed to mix raw asbestos with water to make a cheap form of play dough. We have also learned that the powders in some children's cosmetics kits and in certain powder-water-mix jewelry kits contain asbestos.

"Asbestos is an extremely valuable material, and has become essential in modern industrial society. But improvements are needed to eliminate unnecesary exposure among asbestos workers and men in other building trades. And awareness of the potential risks of environmental contamination is needed until our studies indicate just how far out into the general population the problem extends.

"The public should be made aware of the problem, and no one, particularly children and young people, should be unduly exposed. After all, today's children may be certainly inhaling more asbestos than their parents did, and we now know that if a person inhales significant amounts of asbestos dust, he carries a burden that will provide a latent potential for the development of cancer for the rest of his life," the doctor concludes. END

Worth Writing For

"Motel Guide for the Disabled—European Highways E-1 and E-4" is a 19-page booklet crammed with detailed information of value to any handicapped traveler who plans a trip to Europe. All important countries are included. Copies are 50 cents each from the International Society for Rehabilitation of the Disabled, 219 East 44th Street, New York, New York, 10017.

"Delinquency Today: A Guide for Community Action" is a 22-page publication of the Social and Rehabilitation Service of the Office of Juvenile Delinquency and Youth Development of the U.S. Department of Health, Education, and Welfare. It is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20102, for 20 cents a copy.

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Mr. Thomas Egan
Cambridge

July 13, 1970

William J. Bourke

Official Magazine, American Medical Assn., Article in July, 1970 "Today's Health" Entitled "A Cancer Threat Greater Than Cigarettes"

✓John McEachern
Kurt Rose
Tom Feit
Dick Spencer

Per our phone conversation yesterday I decided to go on the offensive to negate the damage done by the above article.

I first contacted the City of Chicago. I tried to see Mr.Joseph Fitzgerald, Building Commissioner, but was informed he was out and was directed to see Mr. Fitzgeralds's assistant, Mr. John Kucharick, Supervising Architect for the city. Mr. Kucharick was not aware of the article, and he had not had any calls on the job being a pollutant. He was delighted to get all the information on Mono-Kote, and he made a copy of the magazine article to give to a Mr. McDuff who represents the Department of Environmental Control in the city building office. Mr. McDuff was on vacation, so I left my card along with the article in case he would like to reach me.

I proceeded to call on Mr. John G. Morris, Deputy Commissioner of the Department of Environmental Control for the city. Mr. Morris admitted to me that he was the spokesman for his department quoted in the magazine article on Page 31. He had not done any investigating on the article or the job since he got the phone call from Mr. F. Glen Loyd, author of the article and Associate Editor of Today's Health.

I gave the whole M.K. story to Mr. Morris along with the article and a copy of our Boyle Engineering Laboratory study of 4/30/64--"Report on Effect of High Velocity Air Stream Upon the Surface of M.K. Material". He was glad to get this information so he could answer any inquiry he would be getting from the press, the local population and any city or county official. We went into the article quite thoroughly, and he is now well informed on M.K.

I then called on Mr. F. Glen Loyd, the author of the article, at the headquarters of the A.M.A., 535 N. Dearborn, Chicago, Illinois. I explained that I was there to talk about the errors in his article. He was not aware of any errors and so I proceeded. I told him the pictures in the article showed that his text was incorrect. He said that residents of nearby Marina Towers get doused with the material when they step on their balconies. I pointed out that the I.B.M. Building was only fireproofed up to the 9th floor, The Marina Apartments start up on the 18th floor, the material is heavy and falls down and cannot rise 9 floors. He admitted that when he was on the ground he noticed the material (obviously overspray) coming down. His picture in the article shows the M.K.

falling down, not up.

He noticed white powder on the ground near the mixer, and thought this was a pollutant. I explained it was the gypsum dust common on all plastering jobs.

He showed me several pictures of the job showing no tarpaulin erected preventing overspray from dropping onto the streets below, and I told him that this was an error in job supervision and responsibility, and the general contractor (Paschen Construction and Louis Galie Plastering) were taking steps to see that the job is tarped securely. I asked why he thought the job was asbestos fibers, and he said he called Louis Galie Plastering and talked to someone and asked, after identifying himself, "When are you going to start spraying the I.B.M. job with asbestos fibers?" (Mr. Jim Blake of Galie remembers getting a call from a person who did not identify himself, and who asked about the I.B.M. Building. Jim did not offer any information other than the fact they would be spraying in a few weeks). Mr. Loyd and his photographer got some job pictures, but the photographer would not answer our questions as to where he shot these pictures from, and referred us to the author, Mr. Loyd, for these answers. The job pictured was the I.B.M. Building, and it is Galie's man spraying.

Mr. Loyd told me he saw our bags on the job and took the name from it. He then called the Johns Manville Co. and asked someone if that was their product. (He never told me why he deduced it was a J.M. product from our name on the bag. I suspect he knew J.M. is a miner of asbestos and so assumed it was their product.) The unidentified party said it could be or might be their product. He then put Mr. Loyd in touch with J.M.'s Public Relations Department in New York. Mr. Loyd is supposed to have talked to a Mr. William Raines, and told him he was doing this article on sprayon asbestos fibers. Mr. Raines told Mr. Loyd to send his story to Dr. George Wright, who is a consultant to the Asbestos Industry, and is quoted in the article--Mr. Loyd did this.

Mr. Loyd said he did not send the article to Dr. Selikoff, but sent him the pictures of Galie Plastering spraying the job site. Dr. Selikoff did not say that this wasn't an asbestos fiber job, but just gave him facts about asbestos that were quoted in the article. Mr. Loyd then finished his article, and it was printed as you saw it in the July issue.

Mr. Loyd can see now the difference between our product and asbestos fiber, and wishes someone had given him this information before. We went all over the percent of asbestos in our product, our work to rid our product of asbestos, and the application of the product. I even told him where to go to see a sprayed fiber job.

Tom, I hope that I have nipped this thing early enough and am glad we had our talk when you encouraged me to strike back. I don't know what further action we can take from this end, but I am sure W. R. Grace & Co. may have some further ideas.

Bill Bourke

WJB/dn

ZONOLITE DIVISION

TO All Salesmen
Central Region

DATE July 16, 1970

FROM J. A. Mc Eachern

SUBJECT

CC: Wm. Bourke
Bob de Bastian
T. F. Egan

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Sincerely yours,

John a. Mc Eachern

JAM:tm
enclosure

GRACE