PLAINTIFF'S
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AL-1221

University of Pittsburgh
CORRESPONDENCE TRANSMITTAL MEMO

FROM	DATE	
Philip E. Enterline		
TO	**DATE RECEIVED**	**INITIAL**
Dr. B. Dinman		
Medical Director		

- ☐ NOTE & FORWARD
- ☐ NOTE & RETURN
- ☐ NOTE & FILE
- ☐ COMMENT & RETURN
- ☐ FOR YOUR APPROVAL
- ☐ SEE ME ABOUT THIS
- ☐ TAKE CHARGE OF THIS
- ☐ PREPARE REPLY - MY SIGNATURE
- ☐ REPLY DIRECT - SEND ME COPY
- ☐ FOR YOUR SIGNATURE

REMARKS

STOCK-158 (4/74)

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DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS REPORT
1980 (Sept./Oct.): 8-17.

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Code
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The Case for Criminal Sanctions in Preventing Occupational Diseases.

Exhibit A: Asbestos

(Rewritten from the STATEMENT BEFORE THE HOUSE JUDICIARY COMMITTEE SUBCOMMITTEE ON CRIME, November 15, 1979 on H.R. 7040, Formerly H.R. 4973)

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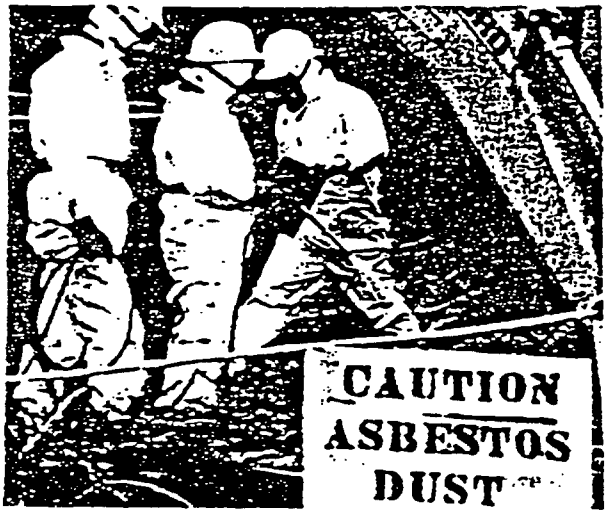
INSTITUTE OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH
MONTREAL, CANADA



Regulation of the marketplace has eliminated some of the worst threats in the workplace and the environment. But those of us who hoped for more substantial preventive action through the process of regulation have been disappointed. Every OSHA regulation is contested by industry, and in Congress it is a continuing struggle to just preserve the protective laws we have and provide regulatory agencies with some funds to develop standards and enforce them.

With the regulatory approach continuously impeded, those of us concerned with preventing industrially-related diseases have been learning about indirect paths, like compensation. We find that the state laws of worker's compensation are full of problems for victims of occupational disease: short statutes of limitations for filing claims, long delays in scheduling hearings, arbitrary limits of medical coverage and poverty levels of disability compensation have made workers' compensation a national disgrace. Over the years, 1966-1977, an average of only five people per year received compensation in the state of New York for occupational cancer: this despite the prominent presence of Mt. Sinai and other renowned medical institutions in that state.

Another form of compensation is in many places still in good shape, however, and it is increasingly used by injured working people and the general public. This is product liability particularly, and damage suits in general, over the harm caused by reckless or negligent business practices. The mounting litigation over asbestosis, Ford Pintos, Firestone tires, Kepone devastation of the James River, pesticide sterility, Love Canal, and PBB poisoning of the dairy industry in Michigan, involves mortal danger to millions of lives and billions of dollars in liabilities.

As a result, business interests in every state are mounting an effort to avert liabilities under the existing laws. This is being done by the erection of new legal defenses and statutes of limitations to bar suits for injuries and disease arising more than ten years or so after the sale of a product. Since 1977, the product liability laws in about twelve states have been rigged with these insidious lapses in the right to redress. Such statutes of limitations have withstood court challenges in cases involving products with long-latent effects.

At the national level, asbestos manufacturers collaborated in the development of a bill for asbestos "compensation." This bill, H.R. 2740, introduced originally in 1977 and reintroduced by Congresswoman Millicent Fenwick in the current session of Congress, would bar all damage suits against asbestos manufacturers and the government. Compensation for asbestos diseases would be solely available through a federal bureaucracy using an expert medical board to evaluate causation. The disability compensation would be limited to something like $13,000 a year, and would be paid by both the taxpayer and the asbestos industry.

Congressman George Miller and others have introduced legislation that would, under federal criminal law, add the spectres of humiliation and incarceration to regulation and compensation. The idea is to personally

confront business managers who conceal harmful business practices with jail, and the resources of the U.S. Attorney's Office in trying the case.

In the past three years, research and legal discovery have revealed many details showing what was known, by whom, and what was done about that knowledge in the asbestos industry. The inside story is vital in evaluating the role of "company men" in failing to prevent the sacrifice of one million of their fellow citizens, their children, and their children's children. Society has failed to prevent a great deal of human suffering through conscience and civil sanctions in the past. The asbestos example illustrates the case for criminal sanctions against business executives who profit by concealing knowledge of mortal dangers from their employees and customers.

ASBESTOSIS

The founder of the modern U.S. asbestos industry was Henry Ward Johns. He patented asbestos roofing products, bought asbestos mines, started making fireproof textiles and insulation, and then something happened that he didn't expect. He got asbestosis and died in a few years, one bleak day in February 1898. We have no way of knowing whether Mr. Johns walked through his factories and noticed his longtime employees suffering the same emaciation, coughing fits, wheezing, and acute shortness of breath that was gripping him. We have no way of knowing what he said and thought when he attended the funerals of foremen of his factories who had died from the dust. We don't even know what his doctors told the sixty-one year old industry magnate he was dying from. We know only that his death certificate lists the cause as "dust phthisis pneumonitis" (dust disease of the lungs with pneumonia as the immediate cause of death).

In 1906, Dr. Montague Murray in England reported the death of a patient from asbestos fibrosis of the lungs to a parliamentary committee on industrial disease compensation. Murray's repart was cited in a 1918 Bulletin from the U.S. Department of Labor Statistics, which urgently called for the investigation of asbestos dust hazards. The Bulletin expressed concern over the industry's growth, noting that insurance companies were already refusing to sell life insurance to asbestos workers. The first case of asbestosis described pathologically in the literature was reported in the British Medical Journal by W. E. Cooke in 1924. As this was followed by other reports, the British Factory Inspectorate decided to survey the industry. The survey, completed in 1930 and reported both in a government report and the (U.S.) Journal of Industrial Hygiene found asbestosis in one third of all the employees who had been with the industry for more than five years. Regulations for the control of asbestos dust went into effect in England in 1933.

In this country, case reports of fatal asbestosis began to appear in 1930. Even earlier, in 1927, a foreman in a Massachusetts asbestos factory received disability compensation for asbestosis. In the 1930's, compensation was taken up at the top levels in the industry. The Board of Directors of the Johns-Manville Corporation settled eleven asbestosis cases in 1933 for "$30,000 provided written assurance were obtained from the attorney for the various plaintiffs that he would not directly or indirectly participate in the bringing of new actions against the company."

That same year, Dr. Merewether of the British Factory Inspectorate published a report showing that workers dying with asbestosis had an average survival time of only fifteen years past the start of asbestos work, compared with a figure of forty years for those dying with silicosis. Merewether reiterated more bad news first reported at a conference in Los Angeles by the British radiologist Sparks: the asbestosis often gets worse, even after people showing the disease are removed from dust exposure. Merewether thoroughly described the disease, and its awful prognosis in light of his many cases, who had died at an average of forty-one.

From North Carolina, Dr. Donnelly reported asbestosis in asbestos textile mills and warned that, "the protective devices now in use in many plants are most inadequate." And in 1934 the Supreme Court of North Carolina declared that asbestosis was compensable under the Workmen's Compensation Act as an injury "by accident."

Oddly enough, there were no such problems reported from the region of Canada where asbestos had been mined since the 1870's. Pedley, writing in the Canadian Public Health Journal in 1930 said:

> "(To) our knowledge, however, no case of pneumoconiosis has ever been reported from asbestos in Canada, and the general impression among the miners is that the dust is not hazardous."

He concluded:

> "From the public health standpoint, however, it seems hardly likely that asbestosis will become of importance either from the standpoint of morbidity or mortality."

What Pedley did not mention is that there was plenty of asbestosis in those mines, and he had seen it. A 1944 confidential report of the Metropolitan Life Insurance Company contains a table of data referenced merely as unpublished work of Pedley and Lanza, 1930. It shows that 195 men were examined in Thetford Mines and in Asbestos, Quebec. At least two mining companies there were insured by Metropolitan Life. Among the 195 miners examined, 42 had asbestosis; there were only 76 men in this group with more than 10 years in the industry, and so apparently around half of these men had asbestosis.

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Pedley's publication, read in the light of what he and Lanza concealed, strongly implies that the examining physicians did not tell any of the Quebec miners they had asbestosis. Forty five years later, in 1975, the Thetford Mines clinic was exposed in the Montreal Star for telling miners they were in good health, when some had such severe asbestosis they died within the following two-year period. The clinic has served four U.S. owned asbestos companies' mines since 1940.

In 1929, the U.S. asbestos industry arranged for a survey of workers with three years or more of employment, "selected at random," as it was reported. The survey was completed in 1931 by Dr. Anthony Lanza of the Metropolitan Life Insurance Company and his coworkers, but it was not submitted for publication until late in 1934. The survey found that fifty-three percent of the asbestos factory workers examined had asbestosis by a conservative reading of their chest x-rays, and many others showed clinical symptoms. The galley proofs of the article were sent to the Johns-Manville Corporation and Raybestos Manhattan Corporation by Dr. Lanza. J-M attorney Vandiver Brown sent the galleys on to his legal specialist, George Hobart, in Newark, New Jersey. Mr. Hobart noted that the company was in danger of having asbestosis recognized as a compensable occupational disease in the 1935 session of the New Jersey Legislative Commission. He reported that the company's principal defense against negligence suits was the dearth of published medical knowledge on asbestosis. Now that the state where J-M had its largest manufacturing plant (in Manville) was thinking of compensating silicosis, asbestosis might be joined in.
Wrote Hobart:

> "I, therefore, dislike to have this report suggest that asbestosis might be assumed to be 'similar' to silicosis, either as to the period of time within which it might develop, or as to the dosage received by the lungs, or as to the quantity of dust, etc."

Attorney Vandiver Brown sent Dr. Lanza Hobart's three-page letter suggesting detailed changes, and a cover note of his own specifically requesting that Lanza insert a sentence he had deleted from the original report sent years earlier to the company lawyers. The sentence appeared, word for word, as the main conclusion of the medical report published in *Public Health Reports* in January 1935:

> "Clinically, from this study, it (asbestosis) appeared to be a type (of disease) milder than silicosis."

Brown explained to Lanza that "all we ask is that all of the favorable aspects of the survey be included and that none of the unfavorable be pictured in darker tones than the circumstances justify." Lanza made a number of the suggested changes, and asbestosis (and silicosis) did not become compensable in New Jersey until 1945.

Asbestosis became compensable in New York in 1935, and an insurance company lawyer wrote that even at top rates some firms were unable to obtain insurance and were moving hazardous work out of the state. It was late that year that the trade magazine Asbestos had the temerity to write to Raybestos-Manhattan President Sumner Simpson for permission to run a first story on asbestosis and modern methods of dust-control. The subject had been raised earlier, of course:

> "Always you have requested that for certain obvious reasons we publish nothing, and, naturally your wishes have been respected."

Simpson sent it right on to Vandiver Brown at J-M, commenting that the magazine had been "very decent about not reprinting the British articles." Vandiver Brown replied:

> "I quite agree with you that our interests are best served by having asbestosis receive the minimum of publicity."

The editor of Asbestos magazine wrote again some years later about publishing the results of industry-sponsored animal inhalation tests. Still acknowledging that the information was confidential and "nothing should be published about asbestosis in 'Asbestos' at present." This letter is dated March 1939, one week after Dr. E. W. Baader reported in the literature that state insurance carriers in Nazi Germany were compensating lung cancer with even slight asbestosis as a compensable disease.

The industry experiments on animals were conducted at the Trudeau Institute's Saranac Labratory in Saranac Lake, New York. The lab had started with tuberculosis research and moved on to dust inhalation studies in the 1920's. In 1936, an invitation was sent out to five other companies by Sumner Simpson, Raybestos' President, offering the suggestion of Vandiver Brown and himself that the industry support some research:

> "(We) could determine from time to time after the findings are made whether we wish any publication or not. My own idea is that it would be a good thing to distribute the information among the medical fraternity, providing it is of the right type and would not injure our companies."

Saranac chief and pathologist, Dr. Leroy Gardner, promptly accepted the industry's offer of $5,000, assuring Van Brown that "the results of these studies shall become the property of the contributors and that the manuscripts of any reports shall be submitted for approval of the contributors before publication."

In 1939 and 1940, Brown wrote to Simpson, alarmed

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that Dr. Gardner was publicly referring to his findings without obtaining the prior consent of his sponsors. A draft version of a 1949 confidential report to Johns-Manville referred to the "outline of a proposed monograph on asbestosis submitted by the late Dr. L. U. Gardener in February 1943. In it he called attention to the high incidence of lung cancer among mice inhaling long-fiber asbestos." Apparently, this outline was submitted to someone who did not wish its publication. (All mention of cancer was deleted from the confidential 1949 report sent to Johns-Manville.)

Owens-Illinois Glass Company got into the asbestos insulation business in 1943, and came to Saranac to test the dust from "Kaylo" insulation for its potential respiratory hazards. Five years later the tests had gone on long enough to produce extensive asbestosis in the test animals. Wrote Gardner's successor, Dr. Arthur Vorwald, to Owens-Illinois research chief Bowes:

> "I realize that our findings regarding Kaylo are less favorable than anticipated, it is better to discover it now in animals rather than later in industrial workers. Thus the company, being forewarned, will be in a better position to institute adequate control measures for safe-guarding exposed employees and protecting its own interests." (November 16, 1948).

In 1950, Owens-Illinois safety specialist William Hazard wrote to Dr. Vorwald about his department's plan to issue a brochure on the "health aspects of Kaylo dust," but no such brochure was ever produced. The company hired a team from Saranac to conduct an industrial hygiene survey, completed in the beginning of 1951.

In light of the company's proprietary knowledge, it is interesting to read an April 1952 "exclusive" in *The Petroleum Engineer* extolling the virtues of Kaylo. The piece, written by Kaylo Division Director of Research, E. C. Shuman, begins with a photo of a refinery in Port Arthur, Texas, where Ivan Johnson and Clarence Borel worked as insulators.

> "The story of how this company researched and developed the non-glass insulating material is interesting. It is also an inspiring example of the American Way. Without the vision, resources, and technical know-how of 'big business,' this material would not be on the market today."

The article boasts that applicators appreciate "the fact that (Kaylo) is non-toxic." It also has a photo of a smiling workman sawing up a piece of pipe covering using a dust-covered Kaylo box as a makeshift work bench. The box bears the advice, "Handle with Care," obviously intended to protect the product against breakage in transit.

Owens-Illinois continued testing Kaylo at Saranac, where the director in 1954, Dr. G.W. Schepers again told company officials that the tests showed Kaylo dust was harmful. But after 1953 the largest customer for Kaylo was Owens-Corning, and in 1958 Owens-Illinois sold the Kaylo business to Owens-Corning. The new owner, which had long manufactured fiberglass insulation, a competitive product, had known about the hazards of asbestos insulation even before the product, Kaylo, came on the market.

Back in 1942, Owens-Corning was having trouble breaking into the insulation business with a fiberglass product. Asbestos Workers union members complained of skin irritation and demanded extra pay for their discomfort in handling fiberglass. Saranac Lab had tested fiberglass dust for Owens-Corning and reported that it caused no significant lung pathology. So as articles by Dr. Gardner and another researcher were going to press, the company decided to "take the offense in telling the health story of fiberglass where it would do the most good." The plan was to buy product liability coverage as a means of assuring the union that the product's safety was guaranteed. If this failed to impress, a "weapon in reserve" on the hazards of asbestos versus fiberglass would be used. This 500-page compendium on asbestosis would be used if the union leadership refused to budge on fiberglass, and it would be spread among the union locals. In this way, the company hoped to use the health issue to cut in on asbestos in the marketplace, while at the same time promoting dissention in the union, possibly even bringing about "the overthrow of the present union leadership."

Though the company unfortunately never unloaded the asbestosis issue on the union, Owens-Corning did print up a brochure for employers. This was full of endorsements for fiberglass as a raw material that carried lower workers' compensation premiums than competitive products like asbestos.

So when Owens-Corning went into insulation contracting and then bought the Kaylo business in the 1950's, it should have been no surprise that one immediate result was the filing of workers' compensation claims by insulation workers with asbestosis. Owens was not the only company that both manufactured asbestos insulation and was fighting compensation claims by (contracting division) insulation installers.

One insulation worker in southern California filed a claim for permanent total disability, listing as defendants, thirty-two companies he had worked for over the years 1920-1957. Mr. James W. Riley and his widow spent the next four years wresting disability and death benefits from Johns-Manville, Owens-Corning, Armstrong Cork, Philip Carey, and Fibreboard, all of whom were manufacturing products that had caused Mr. Riley to die from asbestosis. The claim file on Mr. Riley at the state's office is nine inches thick and even includes one notice of a 1961 hearing on "penalty for willful failure to pay compensation and death benefits."

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A large number of claims have been found against Armstrong Cork, a company that admits to having been served disability claims for asbestosis before starting to manufacture an asbestos insulation product used by its contracting units, in 1956. One of the earliest claims was filed by Mr. Richard Rothwell in 1952. Dr. Harriet Hardy, a respected industrial disease expert, asserted at compensation hearings in Massachusetts that Mr. Rothwell's lung cancer was caused by asbestos insulation dust. On the 1953 claim of Floyd Hyatt, Armstrong went all the way to Florida Supreme Court to avoid paying compensation for asbestosis on a technicality.

Though few compensation records from before 1960 have been preserved, medical reports of insulation installers being compensated for asbestosis date from the 1930's in the U.S., Germany, and Finland.

In the 1940's Johns-Manville periodically sent lung sections and chest X-ray films to Saranac Lab in hopes of getting reports to evaluate compensation claims by asbestos workers. Rose Bertogliat, a widow of Johns-Manville plant foreman in Illinois, approached the company seeking compensation for the occupation-related death of her husband. Sections from Dominic Bertogliat's lungs were then sent by the company to Dr. Vorwald, who concluded that Mr. Bertogliat must have suffered "considerable respiratory difficulty" with his asbestos-torn lungs. Johns-Manville headquarters safety engineer Hugh Jackson, who had worked with Mr. Bertogliat at the Waukegan plant, wrote back that he was "particularly concerned that the type of exposure to which Mr. Bertogliat was subjected should produce the evident results." He continued:

> "To our way of thinking, although he had worked in the general area for a number of years, the degree of exposure was relatively slight. That is, he was subjected not to a concentrated exposure of any particular part of the process but rather only to that of the general atmosphere. Since there are numerous others who also have this type of exposure, I would appreciate your opinion as to whether Mr. Bertogliat might have had some individual susceptibility to the asbestos irritation and/or whether we should anticipate others with similar exposures to be similarly affected."

Dr. Vorwald replied on August 13, 1948, that "I can see no other alternative than to anticipate others with similar exposures to be similarly affected."

It must have been clear to Dr. Vorwald that the company was most pleased with negative findings. In all of Dr. Vorwalds's archives, there is only one letter signed by Vandiver Brown, who was by 1949 ensconced in Johns-Manville's Executive Offices. The letter included payment of $90 for evaluation of two workers' chest X-rays, in 1949.

> "I was pleased to note your findings confirm our own belief that these men were not afflicted with any occupational dust diseases."

CANCER

In 1948, Czechoslovakia followed Germany by recognizing lung cancer as a compensable occupational disease when accompanied by even slight asbestosis. Dr. Hilton Lewisohn, the present medical director of Raybestos-Manhattan has written,

> "Merewether (1949) first demonstrated a clear-cut association between asbestosis and lung carcinoma."

Dr. Merewether's data was quickly picked up in an editorial in the Journal of the American Medical Association. And Merewether himself also published a paper in the Canadian Medical Association Journal.

This last item was immediately spotted by Dr. Kenneth Smith of Johns-Manville, who would later become corporate medical director. He expressed his concern in a note to Dr. Vorwald, who was on his way to an international pneumoconiosis conference in Australia. Vorwald said he'd have a word with Dr. Merewether in Sydney. Merewether's Canadian article included his statistic that, of 235 people dying in the U. K. with asbestosis, 31 (13.2%) also had cancer of the lung and pleura. This was contrasted with a 1.32% lung cancer rate with silicosis, and a 1.0% rate in the general population. In addition Merewether wrote:

> "It can be said with certainty, however, that a few months exposure to silica or asbestos dust in gross ... concentrations will inevitably cause death."

Vorwald wrote to Smith that the article was a "dilly and, as you do, I take strong exception to some of his statements." But Vorwald's real pitch was for further study funds.

"Paul (Cartier, physician who was in charge at the Thetford Mines clinic) tells of another storm which is brewing, this time concerning a case of asbestosis with cancer. I am most anxious to get in with the survey of all data available on the subject before the storm really breaks. *"As you know, fishing is always best just before rather than immediately after the storm."* (emphasis added)

Johns-Manville plant worker Vernon Hall died later that month with lung cancer, and Hugh Jackson at corporate headquarters was apprised of the possibility that a compensation claim might be brought against the company.

In 1949, the same year as the famous asbestos mines strike in Quebec, Dr. Kenneth Smith at Asbestos reported to A. R. Fisher and Vandiver Brown at headquarters the results of his industrial hygiene survey of 708 mine and mill workers. Dr. Smith reported that seven

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would definitely be entitled to disability compensation and another 52 "should be considered as possible compensation claim cases," but the decent thing is not to tell them they're sick. "It must be remembered that although these men have the X-ray evidence of asbestosis, they are working today and definitely are not disabled from asbestosis. They have not been told of this diagnosis, for it is felt that as long as the man feels well, is happy at home and at work, and his physical condition remains good, nothing should be said. When he becomes disabled and sick, then the diagnosis should be made and the claim submitted *by the Company*. The fibrosis of this disease is irreversible and permanent so that eventually compensation will be paid to each of these men. But as long as the man is not disabled it is felt that he should not be told of his condition so he can live and work in peace and the Company can benefit by his many years of experience. Sould the man be told of his condition today there is a very definite possibility that he would become mentally and physically ill, simply through the knowledge that he has asbestosis."

In November, 1950 the Quebec Asbestos Mining Association approved a request from Saranac for funds to do both epidemiological and animal inhalation investigations to see if asbestos caused cancer of the lungs. The animal tests cost $36,000 for two years of work. Approval was granted in a meeting attended by QAMA lawyer Ivan Sabourin and longtime Johns-Manville consultant, Dr. Anthony Lanza. The only trace of the animal study is an interim confidential report in 1952, in which Vorwald reported an excess of pulmonary cancer in mice exposed to asbestos dust for 14 months. No final report has ever been found. There was similar concealment of the epidemiological findings.

Dr. Cartier in Thetford Mines, Quebec had autopsied 53 asbestos miners, among whom 10 had had lung cancer. He presented this table of results at the Seventh Saranac Symposium in 1952, proceedings of which were *never* published.

Comparative Incidence of Pulmonary Cancer in 2 groups of 53 Autopsied asbestos workers

	Group 1 Employees with Asbestosis	Group 2 Employees without Asbestosis	Total
Number Autopsied	34	19	53
Number of Pulmonary Cancers	4	6	10
Percent in Each Group	11.7%	31.5%	

From these results, one might think there was a high risk of cancer in the asbestos industry, a risk that extended to the employees with moderate as well as heavy exposure. But rather than consider this obvious point, Cartier concluded,

> "(T)his table does not reveal a statistical evidence of a causal relationship between asbestosis and cancer." (emphasis added)

In a paper presented in 1953 and published in 1955, Cartier reported that, of 40 miners with asbestosis that he had autopsied, 6 had had cancer of the lung. Without publishing a figure for the number of non-asbestotic workers autopsied, he said there were 7 other lung cancers among non-asbestotics. He alluded to a general industry survey, never published, which did not seem to indicate "a causal relationship." Playing a semantic game he described the role of the "asbestotic fibrosis" as "questionable" in the causation of cancer. Again, he walked wide around the frightening implications of his data, which showed that Canadian asbestos was quite a carcinogenic substance. This would have been clear if Cartier had revealed the proportion of lung cancer among non-asbestotics, which we now know was on the order of 30 percent.

No one in the industry was fooled by Cartier's published conclusions, least of all the lawyer of the Quebec Asbestos Mining Association. Minutes of his September, 1955, presentation to members of the Asbestos Textile Institute, were recorded by Johns-Manville's Hugh Jackson:

> "Mr. Sabourin stated that the present major health problems of the industry pertained to the relationship of heart difficulties and cancer to asbestos exposure." Sabourin was accompanied by Dr. Cartier, himself, at the meeting. Cartier's 1953 presentation on asbestos miners was hosted by Professor Anthony Lanza at New York University. One of Lanza's young associates, Dr. William E. Smith, approached Lanza about that time to test inhaled asbestos on rats for its cancer properties. Shortly before he was fired, Dr. Smith was told by Lanza that scientists looking for industrial causes of cancer were "trouble makers."

Having supported studies on men and mice that both yielded evidence of the carcinogenic effects of asbestos, industry enthusiasm for further research dissipated. Dr. Vorwald was fired by the Saranac Laboratory. He was replaced by Dr. Gerrit Schepers, who did not know of Vorwald's cancer study on asbestos. Dr. Schepers proposed that the Asbestos Textile Institute support carcinogenicity tests on asbestos and was turned down. In 1957 the laboratory folded.

There was still one place left for conducting confidential studies: The Industrial Hygiene Foundation, originally the Air Hygiene Foundation. It was set up by a cross-section of represenatives of American industry. (In the words of Vandiver Brown of Johns-Man-

ville "(I)t is . . . the creature of industry and is the one institution upon which employers can rely completely for a sympathetic appreciation of their viewpoint.") In 1947, IHF did a medical and industrial hygiene survey for the members of the Asbestos Textile Institute (ATI) in 1947. The study found a continuing incidence of asbestosis and dust levels exceeding the lax guidelines recommended by the Public Health Service in 1938. (The textile mill owners had fired 150 workers, most with asbestosis, just before the Service showed up.) The author recommended that the industry assemble the best possible medical brains in a major effort to bring the asbestosis problem under control. Though the author called this industry-wide, confidential survey a "preliminary dust investigation", IHF was never invited back to those plants.

After Saranac's cancer study proposal was rejected by the industry ("ill-advised . . . due to its implication that a relationship existed between asbestos and carcinogenic development, a condition which has not been established although it has been given rather widespread publicity in the press"), IHF decided to approach two asbestos company associations, ATI and Quebec Asbestos Mining Association, on a cancer epidemiology study. IHF Director Daniel Braun sent excellent summaries of the cancer literature to Johns-Manville safety chief Hugh Jackson, as well as more lengthy reviews to the trade associations. The ATI members, thus informed that a recent study in England showed a very high lung cancer rate in asbestos textile workers, rejected the study proposal by a 6-2 vote. From ATI's minutes in 1957:

> "There is a feeling among certain members that such an investigation would stir up a hornet's nest and put the whole industry under suspicion."

However, the National Cancer Institute of Canada was by now planning to conduct an epidemiological study, and only an offer by the Quebec Asbestos Mining Association to do its own research instead, averted a government investigation of the industry.

After assuring a study design and method of analysis most likely to produce negative results, the Asbestos Mining group bought the idea of a cancer study to be done by IHF. As usual, the survey report was sent back to its sponsors for final review. Johns-Manville's Medical Director Kenneth Smith reviewed the draft with Hugh Jackson, and sent on recommended changes via Quebec attorney Sabourin. The study was published in 1958, and in the introduction it noted, "Perhaps no one has written so extensively on the subject as Hueper." Dr. Wilhelm Hueper at the U.S. National Cancer Institute, who had written about the carcinogenicity of asbestos since 1943, denounced the IHF report as "statistical acrobatics which tend to obscure incriminating evidence."

We can only wonder what Mr. A. R. Fisher, the President of Johns-Manville had in mind when he addressed his fellow industrialists at a 1955 meeting of the Industrial Hygiene Foundation with these words:

> "Years ago industrial research was unconcerned about problems of health and safety that might be involved in a product. When the product was developed, it was put on the market. Today our industrial research organizations probe into every health hazard. And every safeguard is insisted upon before the product is marketed to the consumer. A number of companies have established research organizations and laboratories for the sole purpose of eliminating health hazards that might injure the consumer. Some companies have granted fellowships for this specific purpose. And industry has inspired, to a very great extent, the movement to label properly certain types of products that might harm the consumer if he were not forewarned."

Johns-Manville did not put caution labels on sacks of asbestos until 1968. *No* asbestos products are alleged by manufacturers to have carried warning labels until 1964 and later.

By the late 1950's there were regular meetings of the compensation committee at Johns-Manville's hugh New Jersey plant. At these meetings were Medical Director Ken Smith, plant engineer Cliff Sheckler, Nurse Hahn, and a couple of others. Some exerpts of their notes:

Sigmund Skirzenski, age 52, advanced pneumoconiosis
Sheckler: Should we change him.
Smith: Won't make any difference. Do not transfer, retire if necessary.

Alphonso Desantis, age 50
Hahn: Should these men be advised?
Sheckler: We can put transite pipe out of business from this list alone.

John Hudak, 58, moderately advanced pneumoconiosis
Smith: Has he been counseled?
No.
Smith: I see no reason to bring in a man like this it is dangerous.

Anna Blanik, 49, moderately advanced asbestosis
DuBow: She is very nervous. If she is called in, she will get hysterical and I am sure you will have a claim on your hands.
Hahn: If she is transferred to another job, wouldn't that also precipitate something?
DuBow: Mrs. Blanik is working with no complaints. It is one year since she was (health counselled).
Smith: As a doctor, you can't leave her where she is today.
DuBow: Taking her off the job will not change things. The damage has been done.

Stella Krzesewski, 41, moderate to advanced asbestosis

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Scheckler: No health counseling
Patsy Infante 53. 33 years in asbestos
Getter: Records indicate asbestosis in 2/51. Man was advised about dust in his lung in 1/55

Workers at Manville describe the conditions in the 1950's as extremely dusty. Ted Kowalski, who is a leader of this community's victims of asbestos, used to saw the butt ends off of molded pipe insulation. The dust was so thick he couldn't see across the room. The air pollution from the factory blanketed the town with asbestos dust and solid wastes were dumped in a wanton manner. The Manville asbestos workers' group is still struggling to bring New Jersey's compensation laws up to a minimum level of decency. These plant workers may have no alternative to workers' compensation, and their employer's failure to tell them when their examinations showed occupational disease may not even be able to be litigated, let alone used to demand punitive damages.

At the January, 1960 meeting of the National Insulation Manufacturers Association somebody raised the idea of a health program. By this time, the industry leaders were busily fighting compensation claims from insulation workers in their contracting divisions. The idea was dropped at the Manufacturers' meeting that May, at a Florida beach resort. Of all the asbestos products ever marketed, the one that accounts for the greatest toll in exposure and disease is undoubtedly insulation, dust from which was daily breathed by millions of shipyard and construction workers.

A major producer of asbestos insulation was Philip Carey Manufacturing Company. In 1962, at the recommendation of consulting actuaries, Carey hired Dr. Thomas Mancuso for a medical survey of their manufacturing plant. It was initially hoped that:

> "From the claims standpoint, Dr. Mancuso, as a nationally accredited expert, can help us differentiate an expensive asbestosis or silicoisis case from non-occupational illnesses such as cancer and bronchitis, and make the defense stand up."

The author of this prediction was Louis A. Pechstein, Assistant Secretary of the company. Mr. Pechstein is now an official with the company that bought Carey in the early 1970's, Celotex Corporation.

Dr. Mancuso did a thorough survey of conditions at the plant and recommended extensive changes, not only inside the plant but involving consumer warnings and air pollution control. These recommendations were couched in terms of promoting public and consumer relations while avoiding lawsuits and compensation claims. By mid-1963, Dr. Mancuso presented the company with the first report of Dr. Selikoff, showing the very high death rate from cancer and asbestosis among insulation workers. He advised that the officers and managers of an enterprise might even be sued by their own employees for not providing a safe place to work.

Reporting the results of a conference with Mr. Pechstein and others, Dr. Mancuso submitted a confidential report to management on September 23, 1963. The report was full of specific recommendations to clean up the plant, control air pollution, and provide advisory services to product users. By this time, Mancuso appears to have realized that his advice would be rejected.

> "Internally, within the company, the question has been raised as to why medical problems, particularly relating to cancer and asbestos, were not recognized before. Actually, they were recognized, but the asbestos industry chose to ignore and deny their existence."

This company continued manufacturing asbestos insulation products without even attaching warning labels, until 1971.

Dr. Kenneth Smith testified in 1976, shortly before his death, that he'd recommended the use of warning labels on Johns-Manville asbestos way back in 1952:

> "The reason why the caution labels were not implemented immediately, it was a business decision as far as I could understand. Here was a recommendation, the corporation is in business to make, to provide jobs for people and make money for stockholders and they had to take into consideration the effects of everything they did and if the application of a caution label identifying a product as hazardous would cut into sales, there would be serious financial implications. And the powers of be had to make some effort to judge the necessity of the label versus the consequences of placing the label on the product."

It would appear that the company's decision had been made some years before. Starting in 1947, and continuously until the insurance carriers bailed out on Johns-Manville in 1976, the corporation purchased a total of $364,000,000.00 in product liability insurance coverage.

What can we conclude from all this?

1. The entire asbestos problem of today is man made.
2. The concealment of medical facts and reckless indifference to the growing threat represented by the rising use of asbestos involved every major firm in the industry.

SPECIFICALLY

a) The concealment by several asbestos companies mining asbestos in Canada and Metropolitan Life Insurance Company of a 1930 survey by Lanza and Pedley - showing 42 cases of asbestosis in a population of workers only 76 of which had had more than 10 years of exposure. Pedley reported publicly only that the miners felt the dust was not

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harmful, and that no cases of pneumoconiosis from asbestos mining had been reported in Canada.

b) The delayed publication of Lanza's 1935 industry-sponsored medical survey, critically weakened by editorial changes requested by Johns-Manville attorney Vandiver Brown representing his firm and Raybestos-Manhattan Corporation President Sumner Simpson.

c) The suppression of any mention of asbestosis in the U. S. trade journal, *Asbestos*, throughout the 1920's and 1930's, at the direction of Brown and Simpson.

d) Five asbestos companies, including Johns-Manville and Raybestos-Manhattan, contributed to inhalation experiments on animals with asbestos dust, but the scientists at Saranac were not allowed to publish any of their findings unless approved by Vandiver Brown. Studies implicating asbestos as a carcinogen were suppressed.

e) Even after receiving a report (1948) that Kaylo dust caused asbestosis, and having Saranac personnel conduct industrial hygiene surveys of the Ohio plant where Kaylo was produced (1951), Owens-Illinois continued to push the product as "non-toxic" in trade magazines (1952). At the same time, Owen-Illinois patented asbestos-free calcium silicate pipe covering materials.

f) Owens-Corning, which had used the health issue against asbestos in the 1940's went into asbestos insulation contracting in the 1950's and bought the Kaylo business in 1958. Despite the longstanding knwledge of asbestos insulation dangers both in Owens-Corning and its new subsidiary, and despite mounting compensation claims by insulation installers in the 1950's, the company made no effort to inform insulators of the dangers and the measures to take to reduce exposure to the deadly dust.

g) Johns-Manville top management rejected the proposal by Dr. Kenneth Smith to affix warning labels to asbestos in 1952. This despite the company's discovery in 1948 that one employee died of asbestosis from just breathing the general atmosphere inside their Waukegan, Illinois plant.

h) Johns-Manville's management held regular meetings at the large Manville, New Jersey plant, to consider health problems and avert workers'compensation claims (1957-1958). Their notes show that the workers were routinely kept in the dark about the company doctors' diagnoses of asbestosis. A John-Manville plant manager in California, Wilber Ruff, has testified that the company had a "hush-hush" policy until 1971 of not telling workers if their biennial company physical showed signs of dust disease.

i) The Quebec Asbestos Mining Association sponsored an inhalation test of asbestos on mice, at Saranac in 1951-52. The preliminary findings of these tests, never published, were positive, in a 1952 report to QAMA. The same year that industry doctor Paul Cartier published figures purporting to show no cancer hazard in asbestos mines, QAMA's lawyer informed the (9/55) meeting of the Asbestos Textile Institute that cancer was a major problem in the industry.

j) ATI's members rejected proposed cancer studies from Saranac Lab and Industrial Hygiene Foundation in 1956-57. QAMA supported a short-term follow-up, mortality study of asbestos miners, published by IHF researchers and roundly denounced for design biases by Dr. Wilhelm Hueper and Dr. Thomas Mancuso.

k) Armstrong Cork had a large number of compensation claims (for asbestosis and cancer, starting 1952) from insulation workers hired by its contracting division. Yet Armstrong had long been repackaging asbestos insulation and then manufactured its own starting in 1956, with no warning labels and no attempts to advise workers of safest work practices.

l) Compensation claims by insulators were also being paid by Johns-Manville and Philip Carey Manufacturing Company in the 1950's. They continued to manufacture asbestos insulation with no attempts to warn of the danger, or conduct studies on the exposure and fate of insulation workers.

m) The National Insulation Manufacturers Association rejected the idea of setting up a health program in 1960. Member firms included major producers of asbestos insulation. The corresponding British manufacturers group (Thermal Insulation Contractors Association) had requested 70 copies of government warning on the health hazard of asbestos in shipyards in 1945.

n) Dr. Thomas Mancuso, whose study of asbestos workers published in 1963 showed an excess of cancer, was hired by the Philip Carey Manufacturing Company to conduct an industrial hygiene and medical survey of the Carey plant making asbestos insulation. He recommended continuous industrial hygiene oversight for the plant workers, the compilation of health and autopsy data for studies, and the development of a multi-faceted customer advisory effort on the health hazards. The responsible company officials, including Louis Pechstein, who had hired Dr. Mancuso, apparently disregarded much of this advice. Carey asbestos insulation was sold for the next 7 years without warning labels.

o) Thetford Mines clinic, which served Carey Canadian, Lake Asbestos, Bell Asbestos, and Asbestos Corporation in Quebec, run from 1940 - 1974 under the direction of Dr. Paul Cartier, admittedly had a policy of telling workers they were healthy even when medical examinations revealed disabling asbestosis. In nearby Asbestos, Quebec, Dr.

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Kenneth Smith examined 708 Johns-Manville asbestos mining employees in 1949, and did not tell one that he had symptoms of asbestosis.

STATUS OF REMEDIAL CRIMINAL SANCTIONS LEGISLATION

There are several attempts afoot in Congress to amend the U.S. Criminal Code by providing jail penalties for certain practices by business managers. The least extensive proposals would deal with concealment only; other bills would contain complementary lesser penalties for reckless endangerment. Using the example of asbestos, the payment of workmen's compensation to sick insulators by officials of a company who did nothing about the firm's continued manufacture of asbestos insulation without warning labels--this might be handled as reckless endangerment, if not concealment.

In the House, Congressman George Miller (California) has offered H.R. 7040, and a print of the hearings on this bill should be available soon from the House Judiciary Committee, Subcommittee on Crime. No Senate version of this bill has appeared, although similar provisions may be incorporated into the overall revised Criminal Code wending its way through both Houses of Congress. The Administration has no official position on the Miller bill; which is to say that various Departments have very strong positions that point in opposite directions. Business interests have generally refrained from taking public positions on the Miller bill, but are lobbying fiercely against its passage.

The fact that this is an election year not only for the President but also many Members of Congress, who must all raise campaign funds largely from business contributors, militates against favorable consideration of this legislation in 1980. However, if it does not come up this year, renewed efforts will be made in 1981, based on the hearing record and whatever else comes up in the next few months, to provide criminal sanctions in the U.S. Code where they are most needed. This legislation is definitely an area where individuals and professional organizations can help by making their views known to Congress and the Administration.

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