Editorial:

YOUR JOB OR YOUR LIFE

Outside of coal miners’ black lung disease, more public and scientific attention has been focused on asbestos-related diseases than any other occupational hazard. In 1970 the asbestos industry rocked when newspapers across the country carried accounts of workers who contracted asbestosis, lung cancer and mesothelioma from spraying asbestos on buildings under construction. The exposés resulted in the banning of asbestos spraying in New York, Boston and Chicago. But the action came too late to prevent thousands of deaths. Among the fatalities was Albert Hutchinson, president of the 20,000-member union, the International Association of Heat and Frost Insulators and Asbestos Workers.

Asbestos is a substance ubiquitously used in industry: garment workers make coats from a mixture of wool, nylon and asbestos; painters mix asbestos with paint; auto workers spray asbestos on brake linings; demolition workers shake free billions of asbestos particles when they tear down buildings.

While articles on the asbestos “plague” continue to appear, they rarely go beyond discussing the medical consequences of asbestos exposure and the efforts of researchers to discover safe exposure levels. This case study of the Johns-Manville Corporation, giant of the asbestos industry, examines the political and economic conflicts underlying the medical problem.

By most criteria, Johns-Manville (J-M) is a sophisticated, progressive company. It can boast that it has historically led the field in asbestos hazards research. In response to widespread alarm over the dangers of asbestos J-M has, after initial resistance, successively lowered its workers’ exposure levels. It has already achieved the 1976 exposure standard of 2 fibers/cc at most locations in its large plants, while other companies still strive to reach the present standard of 5 fibers/cc. There’s one hitch, however. There is no assurance that workers will stop dying from this level of exposure any more than they stopped dying when previous levels were lowered. There is no scientific evidence to suggest that 2 fibers/cc exposure is not hazardous to the health of workers. Indeed, many experts believe that the only safe level of exposure is no exposure at all.

Eliminating all exposure is technologically feasible. But for the moment no pressure for this is coming from workers, their unions, or the government. This hesitancy of workers and unions stems from their realistic assessment of the situation and not out of ignorance, masochism or materialism. If they pressed industry with a demand to end all exposure, J-M claims it would have one of two options: either pick up stakes and move to a more temperate labor climate, or automate its exist-
ing plants. In either event, workers are in what is fast becoming a classic bind—fighting for their health and safety while risking their livelihood or jeopardizing their health and safety while holding down their jobs.

In a society oriented to the health and well-being of all citizens and not toward profit, no one would face so cruel a choice. Scientific advances and changing technology might still cause a reshuffling of jobs, but re-training of workers and re-location of jobs would not be the insurmountable problems they are in this society. J-M workers know that neither they nor other workers in single industries have the muscle to insure such rational alternatives. So they stay at J-M, earn a modest living and die a premature and often gruesome death.

But even if J-M brought the exposure level down to zero in its plants, other asbestos workers would be no better off.

For more than 95 percent of the workers handling the "magic mineral"—garment workers, auto workers, painters, aerospace workers, demolition workers, five million in all—do not work in asbestos production. Control of asbestos exposure in other industries is almost nonexistent. Sadly, most trade unions are too preoccupied with their economic plight to concern themselves with other issues. But the health of asbestos workers generally, and the job protection of J-M workers specifically, can only be won through broad scale labor unity and militancy. For now this prospect is utopian. In the meantime, local worker militancy, media exposes and the support of health professionals can force piece meal progress. Minimally, this can save some lives. Maximally, it might suggest the need for a broader attack against occupational diseases, the most preventable diseases of all.

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CORPORATE CANCER

Johns-Manville Corporation (J-M) is the largest producer of asbestos in the world. The biggest miner of asbestos in North America, it uses only 25 percent of its mined fiber in manufacturing its many and varied products for industrial and home use. The rest it sells to foreign and domestic customers (1). J-M’s sales of asbestos products, about one-third of its total sales, are the largest in the world, about $220 million in 1971. Its closest American competitor, the Raybestos Manhattan Company, commands about $120 million, but it owns no mines. So it, like almost every asbestos manufacturer, buys some fiber from J-M, according to an industry spokesman.

In the last three years J-M has streamlined its stodgy image as a family-owned, one-product business, to become an increasingly diversified, multinational company with an ex-Rand analyst, ex-NYU Business School professor as its head. J-M has not only lifted its corporate face, its plants have changed, too. J-M has installed new dust collection equipment so that its large plants, which were once as dusty as any North Carolina textile mill, are now eerily antiseptic. At J-M’s largest plant in Manville, New Jersey, only a suggestion of the former era remains—the colonial style building at the entrance of the plant that houses the administrative offices. Formerly called the Asbestos
Hotel, this mansion was built to include recreational facilities for the Johns and the Manvilles, who missed the glamour of New York City.

Manville was so named in 1929 by its founding father, Thomas Manville. Moving from Brooklyn, J-M settled in New Jersey because "our customers were here and the location was accessible for shipping," according to the plant community relations manager. Manville homesteaders were lured from depressed eastern Pennsylvania coal towns by company scouts who promised them land and decent wages. Many were unemployed and others were only too happy to escape the hazardous work in the mines for what they believed would be safe and steady work at J-M.

Today Manville cannot quite be called a company town. There are no company stores; the newspaper is independently run. Several plants—GAF, American Cyanamid and Bakelite—are close by. Yet J-M is still the town's mainstay. It employs 2,225 of Manville's 13,115 citizens, the Mayor and other local officials among them. Its payroll accounts for 60 percent of Manville's total income, and it pays 50 percent of Manville's taxes. Most of the town's older residents are grateful for the favors which J-M has rendered over the years. J-M gave pipe for the town's sewage system, contributed heavily to the building fund for the new high school, donated the air pollution detection equipment atop Borough Hall, repaired at no cost the town's road maintenance equipment, and supported the Veterans' Parade, Pop Warner Little League Team, and local VFW. Manville shopkeepers say that "without J-M there'd be no Main Street."

Manville, though not a wealthy town, has always been economically stable. During the war years the asbestos industry grew tremendously as new uses for asbestos were discovered. In this period, J-M became the asbestos king and Manville one of its major production centers. The use of asbestos has continued to mushroom through the years, and J-M's business has flourished. The health of asbestos workers has not.

The Medical Problem
Serious medical problems resulting from occupational exposure to asbestos have been known for over half a century. But their full impact on the lives and deaths of asbestos workers was not widely realized until the early 1960's. Then a dramatic series of studies by Dr. Irving Selikoff and his associates at the Mt. Sinai School of Medicine, in collaboration with Dr. E. Cuyler Hammond of the American Cancer Society, revealed the scope of the tragedy.

Asbestos insulation workers in the building trades were found to have a death rate 25 percent greater than other workers of similar age. Of 632 union members with 20 or more years of exposure to asbestos, 255 died between 1943 and 1962. As Dr. Selikoff and associates followed the remaining workers for another eight years, the picture became even more stark. One hundred and sixty-three workers died—over twice as many as normally expected (2).

The Selikoff team next turned to asbestos production workers at the Johns-Manville factory in Manville, New Jersey. They found workers with long-term exposure to asbestos dying at a rate 50 percent greater than expected.

Throughout the United States, about 40,000 people are asbestos insulation workers in the building trades, and 50,000 work in the production of asbestos. But when it is realized that an estimated five million people work with asbestos-contain-

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ing products, the full extent of the danger to American workers becomes apparent.

Even more ominous is the possibility that the general population may be susceptible to asbestos disease. In cities throughout the world—Montreal, Milan, Belfast, Capetown, New York—small growths have been found in the lungs of city dwellers similar to those found in asbestos workers. Scientists speculate that they are caused by breathing polluted air containing asbestos fibers.

Four different disabling or fatal diseases are known to result from inhalation of asbestos fibers: asbestosis, lung cancer, mesothelioma and gastrointestinal cancer (see box, Page 5). Asbestosis, with its symptoms of coughing and shortness of breath, makes its appearance ten or more years after first exposure to the fibers. The other diseases, however, may not appear until 20 or 30 years after first exposure, thus making it difficult to correlate them with job experience. But with shorter or longer incubation, the effects on communities like Manville are enormous.

Dr. Maxwell Borow, a local chest surgeon, estimate that there are now 2,000-3,000 asbestosis victims in the Manville area alone. Not only individuals are affected, but entire families. A typical Manville family has two generations working in the asbestos plant. A woman in her early sixties, who now works in the aerospace division of the plant, remarked: "I been workin' there many years. Many years. My mother worked there 45 years ago for three months. She got that asbestos in her lungs. I lost a brother a year ago, he died at 70 from the asbestos. And now my husband, he's sick with mesothelioma."

Local residents remember the old days when asbestos dust from the factory settled on the town like year-round snowfall. People regularly dusted off their cars and front porches, and housewives who left clothes out to dry often brought them in covered with asbestos dust. "Oh, yes. The kids used to call it snowing. It was all over everything. No use dusting, you'd just have to dust it off the next day," one old-time resident recalled.

The full extent of the tragedy will probably never be known. Mesothelioma, for example, was so rarely mentioned in the medical literature that until recently doctors often misdiagnosed it. And asbestosis was often diagnosed as tuberculosis or called by its generic name, pulmonary fibrosis. Most of the people who worked with asbestos at J-M, as well as in shipyards and many other industries, probably never thought to connect the disease, which appeared twenty to thirty years later, with the dust they had breathed in.

**ASBESTOS**

Asbestos is a mineral composed of white waxy fibers, not unlike dental floss at first glance. Asbestos is found in deposits of serpentine rock. Very little exists in the US; the largest accessible deposits are located in Canada, USSR, South Africa, and the Peoples' Republic of China. Of the total world production of over four million tons, the US is responsible for only 125,000 tons. US involvement extends beyond its borders, however. J-M owns the largest asbestos mine in the world, the Jeffrey Mine, in Asbestos, Quebec (11).

Known since the first century as the magic mineral, asbestos fibers have astonishing properties. They are virtually indestructible, being resistant to both temperature variations and most chemicals. Asbestos doesn't burn, decay, or corrode. Yet asbestos fibers, though quite strong, are so soft and flexible that they are carded, spun and woven like cotton. In fact, asbestos is the only mineral that can be woven into cloth. The Manville plant, for example, weaves various types of cloth mixtures for industrial and home use. It also made insulation for rockets for the Apollo space program, roof shingles, siding, transite sewage pipes, packings, gaskets, and engine blankets. But those are only a fraction of the estimated 3,000 industrial uses for asbestos. Asbestos is used in transportation (for clutch facings, brake linings, mufflers), building construction (insulation board, electrical wire casing, ceiling tile); home furnishings and products (draperies, rugs, floor tiles, oven linings, ironing board covers, potholders (12).
so long before. Nevertheless, while workers have been kept ignorant of their fate, the corporation was hard at work, for its own benefit, unraveling the mystery.

Industry Response

Industry's first response to asbestos hazard came in 1929, when John-Manville established the Saranac Research Laboratory, more than 20 years after the first reports of asbestos disease appeared in the medical literature. Unfortunately, the quality of the research was poor (3). Similarly while evidence of asbestos-related lung cancer was reported in 1935, research did not begin in the 1950's. Nevertheless, for all of its tardiness and scientific mediocrity, Johns-Manville was the only company in the industry to carry out medical research on asbestos-related diseases. Other corporations ignored the problem altogether.

In the 1930's J-M became the first company to monitor and regulate dust levels in its plants. In 1937, a year before the United States Public Health Service made its first recommendation on limiting asbestos exposure, J-M hired its first industrial hygienist. As steadily lower recommendations were made by government agencies, this industrial hygiene program grew. By 1969 J-M employed 25 industrial hygienists, eleven more than the total number

TOPIC OF CANCER

MESOTHELIOMA—A cancer of the lining of the lung or abdominal cavities (also called pleural or peritoneal mesothelioma, respectively). Gallons of fluid collect in the diseased body cavity and must be drained regularly, while the victim steadily loses appetite and weight. The disease was a medical rarity before the 1960's, causing perhaps one of every 10,000 deaths in the general population. Mesothelioma has a lag time of some 30 years between exposure and incidence of the disease, and increased asbestos use in the 1920's and 1930's has resulted in many recent cases. For example, eight percent of all Manville asbestos workers now die of mesothelioma. Today mesothelioma is widely recognized as a signature of asbestos exposure—it results only from asbestos exposure.

LUNG CANCER—The association with asbestos was first reported in 1935 by Lynch and Smith, who found evidence of lung cancer in a South Carolina asbestosis victim. Similar reports continued for many years, until several full-scale epidemiological studies confirming these results were published by the British government between 1947 and 1955. In the Manville plant between 1959 and 1971, 27 workers died of lung cancer, more than three times the number of deaths expected in a comparable population.

GASTROINTESTINAL CANCER—In 1972 Dr. Selikoff and co-workers reported an increased incidence of cancer of the stomach, colon and rectum among asbestos workers, drawn from recent studies on asbestos insulation workers. Among Manville workers, 13 died when 5.0 deaths would otherwise be expected.

ASBESTOSIS—A crippling, often-fatal lung disease similar to coalminers' black lung disease marked by coughing, shortness of breath, and scarring of lung tissue as seen in X-rays. Asbestosis was first reported in the medical literature in 1907 by an English doctor. Individual cases continued to be reported in the US and Great Britain for the next two decades. Contrary to statements by many present day commentators, the dangers of asbestos work have been widely known. By 1918 US and Canadian companies refused to sell life insurance to asbestos workers because of the health hazards of their trade. Over the years, the US government has recommended a series of asbestos exposure levels, each one lower than the previous one, hoping to eliminate its hazards. Nevertheless 12 percent of the deaths of Manville workers between 1959 and 1971 resulted from asbestosis (see accompanying table), despite J-M's adherence to the government recommendations.
employed for all purposes by the federal government.

While J-M's medical research and environmental control programs seem progressive, at least relative to other companies, its relationship to the worker-victims of asbestos disease is quite another story.

Until 1971 the company's medical staff denied workers access to their medical records. According to one older worker, "the doctor never showed me my X-rays. In fact nobody was shown their X-rays." It wasn't until after the union demanded access to the X-rays during its 1970 contract negotiations that J-M finally agreed to let the workers see them (see Page 8).

Further, J-M refused to tell workers the results of physical examinations. Company spokesmen admit that until a few years ago the company did not tell workers that their respiratory problems were linked to asbestos. Joseph Kiewleski, an asbestosis victim, indicated that after a company physical, he was transferred without any explanation from a machinist's to a janitor's job. He found out from his own doctor years later that the reason for the job change was to remove him from the source of exposure.

Moreover, company doctors in their cursory examinations of workers missed the most blatant diseases. Just last year Kiewleski's son-in-law, 49-year-old Daniel Maciborski, was diagnosed with mesothelioma a few weeks after he had been given a clean bill of health by the company. He died seven months later.

The company also tried to attribute occupational diseases to other causes. In describing the detection of asbestos on X-rays, the corporate medical director of J-M, Dr. Thomas Davison, asserted in a local newspaper interview: "Asbestos is not the only thing that causes scarring (of the lung); in fact, it is probably one of the least frequent things that causes scarring of the lung in our population" (4). The company tried for years to strengthen its case by "calling asbestosis something else," according to Dr. Maxwell Borow, the local doctor who has diagnosed about 300 cases of asbestosis and about 70 cases of mesothelioma in the Manville area in the last 10 years. "They claimed that workers had pneumoconiosis from mining coal in Pennsylvania." But ironically enough, after World War II the Manville plant had an influx of young veterans who

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Health PAC: When did you find out your husband was sick? (with asbestos)

J-M worker: 2 years ago. He stopped workin' at the plant two years ago. But he was sick before that. He coughed so. Kept us up all night. He coughed so, it was worse than whooping cough. I thought he'd have a stroke....Then he had pneumonia every five years. ... And the doctors never told us what it was. They said "fibrosis." I went home and looked it up in a medical book—fibrosis, why it's just another name for asbestosis. ... You know, them scientists, they blame the mesothelioma on smoking. They say that people that smoke get the cancer. I don't agree. My husband got it, and he don't smoke."
had never mined coal because they were wary of the black lung disease that had destroyed their fathers’ lungs.

Not only were the workers misinformed about their health, they were never told about the company’s extensive medical research program on asbestos hazards. As recently as ten years ago many Manville families did not know for certain that asbestos dust caused disease, though the company had done research since 1929.

Leaders of Local 800 of the United Papermakers and Paperworkers (UPP), which represents 80 percent of J-M workers in the Manville plant (the rest are administrative staff), started to suspect in the 1950’s that workers were dying from asbestos. UPP, like many other unions, was in a bind. If it raised a ruckus, J-M might close the plant down, or almost as bad, automate it. In either case, workers would lose their jobs and the union its membership. Some unions accept this development by trading jobs for a package of high wages, health and welfare benefits, and early retirement plans. But in general, because of high unemployment and the lack of re-training programs for displaced and disabled workers, the threat of job loss paralyzes the unions. Hence they do not press demands for safer and healthier work conditions.

In the case of UPP, structural problems weakened the Union even further. Its first problem was its miniscule size—150,000 members nationally (5). Small as it was, Local 800 was the largest UPP local dealing with J-M. Four other locals having contracts with J-M number only 100-150 members each. Moreover, UPP is only one of 26 different international unions with whom J-M bargains, making dim the prospect of industry-wide union efforts on health and safety conditions. Finally, the Union does not have a history of militancy. The cultural ties of the coal miners, created over a hundred years of shared adversity, are absent here. Many "old-timers" have at least 25 years’ seniority and fear job loss. So they have not pressed the union about working conditions. Indeed, there have only been two strikes in the history of the local. These workers know that they are fundamentally dependent on J-M for their survival. If the company automated or moved away, they would be too old or too sick to be hired by other companies in the area.

So, although the Union’s leadership knew of the health hazards in the 1950’s, it felt it lacked support for any decisive action. Marshall Smith, president of the Local from 1961 to 1969, explained the Union’s lethargic stance: "In the ’50s, unions fought for more money and fewer working hours—the primary goals of labor at that time. We were aware of asbestosis then; I couldn’t help but notice it. I saw people die from it. However, the time [for action] wasn’t ripe in the ’50s."

In 1953 UPP, along with J-M’s other unions, formed the Inter-Union Council to coordinate contract negotiations. It was not until 1967, however, that the Council seriously addressed itself to the medical hazards or asbestos. Local surgeon, Dr. Borow, approached it with evidence of a virtual epidemic of mesothelioma and asbestosis in the Manville area. The Council agreed to finance an educational exhibit, depicting the medical hazards of asbestos, to be shown at medical conventions and to the union membership. (Borow originally requested funding from J-M but was turned down.)

In 1969 the Inter-Union Council proposed that J-M and the unions co-sponsor a Health Hazards Research project for the asbestos industry. The company turned them down, saying that it would "retard the progress made by the company in its own research efforts." Instead of pressing the matter further, or even more importantly, agitating among the membership to form a union-sponsored research program, the Council let the matter drop.

The Great Strike

Interest in health and safety didn’t surface again until the UPP contract negotiations in 1970. For the first time in ten years the union struck, crippling the plant for almost six months. The major concerns were bread and butter issues, but a vocal
minority of younger workers began to raise questions about their health. Marshall Smith explained the source of their concern: "Twenty years ago we had a different kind of people; they worked to make a living. Now, the younger people, within the union, are questioning what they are doing, and why their work should be dangerous. The younger people are children of those workers who have been with J-M for a long time; they are more aware of what is happening. They hear their parents coughing in the middle of the night and they know that they don't want to end up like their parents."

The strike permitted the airing of tensions between young and older workers about health and safety issues. For the Manville community, the strike was impressive because of its duration and the total involvement of the union membership.

When the strike was settled, the company agreed to permit workers access to their X-rays. As a "preventive measure," J-M also consented to establish a joint union-management environmental control committee. Union officials publicly proclaim the committee a great victory. They say that they are pleased by the company's efforts to reduce the dust level of asbestos (see "Federal Government," Page 9), though union President Joe Mondrone admits that "no one knows what a safe limit [of exposure to asbestos] is."

Whether this committee can institute meaningful reforms or is merely a token gesture remains to be seen.

Working conditions have improved since the strike. Recently, the Union has minimized past and present occupational health and safety problems at the plant to the press, and seems to have re-adopted a "don't-rock-the-boat" policy.

State vs. Victims

During the late 1960's the Union encouraged its membership to seek legal redress for asbestos-related disease. Hence many victims turned to the state compensation courts. They quickly found that New Jersey law limits the period within which they could file a claim to five years after the date of last exposure. This left mesothelioma victims out of the running, because mesothelioma usually does not appear until 30 years after initial exposure.

With compensation a dead end, the victims' dependents then filed suits against the company. J-M, to keep things quiet, usually settled out of court. The average settlement in the mid-1960's was $10,000. Recently, Health/PAC spoke to Mrs. Marguerite Malko, whose husband, a liquor salesman, died from mesothelioma at age 47, having worked for 18 months as a stock boy at J-M 24 years earlier:

Q: Did your husband file for compensation?
A: It didn't do any good. The statute of limitations prevented us doing anything. It's only good for up to [5] years. After he died I filed a suit. We started asking $250,000 damages. I got $10,000. After paying my lawyer and the court fees, I ended up with $6,600.

"For those who ask the question, 'Can American industry afford the occupational safety and health standards that the 1970 Act demands?', the answer seems to be provided by J-M's Manville plant. It is operating at a profit."

—Report Series on OSHA 11-27-72
Q: During the time you filed the suit, how did the company treat you?
A: They considered it a nuisance case. Two other people had cases at the time, and both received small compensation. After the settlements there was a lot of publicity. 20 to 30 people called my lawyer with such requests.

In recent years the company has increased the settlement for mesothelioma victims. It is now willing to pay the deceased's hospital bills, as well as half the victim's salary for the rest of the widow's life.

Asbestosis and lung cancer victims have not fared much better. Many who have filed for compensation have often found the courts more receptive to the medical arguments presented by the company. "The disease was caused by something else;" hence J-M is not responsible. Not surprisingly, the number of settlements have been few compared to the number of cases filed. The company admits that almost 100 percent of the Manville wage earners have filed claims for asbestosis.

"The disease is not as severe as the victim claims." Thus the amount of the award in settled cases tends to be low. In 1970, the awards for J-M's asbestosis victims averaged $2,175.

In some sense, these J-M workers were representative there pointed out the effect of that ruling: "Either they have to keep working until they're practically gone, or they retire early and starve."

If the state and local governments have made it cozy for the asbestos industry, the federal government has also feathered the bed.

The Federal Government

Until the 1960's when the effects of asbestos exposure were first publicized, the Federal government remained industry's silent, but informed, partner. In 1965, the US Public Health Service conducted a study of the Manville plant with "full cooperation" between government and industry. But, when the Union requested the results of the study, the Public Health Service refused to release it. Not until 1971, six years later, did the government first inform the Union of "serious and persistent hazards" at the J-M plant. Meanwhile, Dr. Lewis Cralley, director of the study and presently an official of the National Institute of Occupational Safety and Health (NIOSH), a Federal agency, continued to engage in and publish asbestos research in conjunction with leaders of the Industrial Hygiene Foundation. IHF is a group funded entirely by industry, whose openly-acknowledged purpose is troubleshooting for industry. (See BULLETIN, September, 1972.)

"Our concern is that in many cases a standard of 2 fibers cannot be met technically or economically in our plant operation....

Our best estimate is that approximately 800 of our employees would have to be laid off, resulting in a loss to these people and to the community of about $10,000,000.00 in annual payroll."

—Letter to Rep. Peter Frelinghuysen from J-M

fortunate. Those who developed asbestosis at the Waukegan, Illinois plant were not so lucky. Illinois Workmen's Compensation does not permit a worker to file for disability benefits unless he or she is 100 percent disabled. A local union re-

The same spirit of government-industry "cooperation" permeated the 1972 Labor Department hearings on a new, permanent asbestos standard and a warning label for asbestos products. A study on the feasibility of lowering asbestos stand-
ards, commissioned by Secretary of Labor James Hodgson, shamelessly rubber-stamped industry’s position that a lower asbestos level was not feasible because it would jeopardize companies’ profits. At the hearings, J-M drew upon research which it had financed over many years to buttress its case. This research had many faults. Most serious was the inclusion of workers who had only been exposed to asbestos for short periods of time, and who could be expected to show no signs of disease no matter how high their exposure. Thus the experiments consistently underestimated the incidence of disease. (For a fuller discussion of the hearings and the scientific controversies, see box, Page 12).

In the end, the results of the Labor Department hearing were a compromise, but still an important victory for the asbestos industry. Industry won completely its fight to delete any reference to cancer on asbestos warning signs (see box, Page 12). Furthermore, the Secretary of Labor retained the present 5 fiber/cc standard until 1976, at which time it will drop to 2 fiber/cc. The 2-fiber limit is an important step toward limiting workplace exposure and potentially limiting disease. Nevertheless, the effect of waiting until 1976 is serious. As Dr. Selikoff aptly put it “By a stroke of the pen, 50,000 more lives were thrown down the drain.”

The No-Fiber Limit

While a reduced transition time would certainly save lives, this controversy has obscured an even more important point. There is no evidence that a 2 fiber/cc exposure level is safe; indeed, no level of asbestos exposure is known to be safe. The 1972 criteria document on asbestos, written by NIOSH, states that present evidence “is not sufficient to establish a meaningful standard based upon firm scientific data.” All that is known is that a 5 fiber/cc exposure level causes asbestosis.

The particular choice of a 2 fiber/cc limit, according to the NIOSH document, was based on two factors: the precedent of the British 2 fiber/cc asbestos standard, and a pro-industry economic feasibility study conducted by the A. D. Little Company (see box, Page 12). Ironically, the British are presently re-evaluating their standard because the single most important experiment on which it is based badly underestimates the incidence of asbestosis (see box, on Page 12 for criticisms of similar US experiments).

NIOSH officials and other government leaders are fully aware that the 2 fiber/cc limit is not a safe one. In June 1972 Dr. Marcus Key, Director of NIOSH, made a “conservative estimate” before the Select House Committee on Small Business that 231 deaths per year per 100,000 asbestos workers are to be expected using the 2 fiber/cc exposure standard. Tony Mazzocchi, Legislative Director of the Oil, Chemical and Atomic Workers Union (OCAW), has charged the Nixon Administration with being “irivolous with the health and rights of working people. Only an admin-

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### THE DEATH TOLL

Expected and Observed Deaths Among 689 Workers at the Manville Plant of Johns-Manville Corporation, January 1, 1959-December 31, 1971†

<table>
<thead>
<tr>
<th>Death Category</th>
<th>Observed Deaths</th>
<th>Expected Deaths</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
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<tr>
<td>Lung Cancer</td>
<td>27</td>
<td>14%</td>
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<tr>
<td>Mesothelioma</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>Cancer of Gastrointestinal Tract</td>
<td>13</td>
<td>7%</td>
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<tr>
<td>Cancer All Other Sites</td>
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<td>9%</td>
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<tr>
<td>Asbestosis</td>
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<td>12%</td>
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<tr>
<td>All Other Causes</td>
<td>103</td>
<td>52%</td>
</tr>
<tr>
<td>Total Deaths</td>
<td>199</td>
<td>102%</td>
</tr>
</tbody>
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* US data not available but numbers should be only slightly less than these values.
** US data not available but these are rare causes of death in the general population.
† Adapted from a study by Dr. Irving Selikoff and co-workers at Mt. Sinai Medical School, New York.
*** Because of rounding, the percentages do not add to 100.
istrative agency harboring that kind of attitude could propose a standard... which would foster the continued industrial incidence of asbestos disease."

**J-M's Response**

By December, 1972, four years before the two-fiber standard goes into effect, 80 percent of J-M's Manville monitoring stations were below 2 fiber/cc. This was the result of a major company-wide program to reduce dust levels begun nearly six years ago. (Earlier in 1972, J-M executives pleaded with the Federal government not to lower the standard to 2 fiber/cc because of the enormous hardships involved.)

J-M accomplished this reduction by eliminating many intermediate steps in the production process, enclosing or bettering ventilation in some areas, and improving housekeeping procedures. In the textile division of the Manville plant, for example, steps have been eliminated from carting, spinning and warping, according to officials conducting a recent plant tour. Manville executives are elated. "By eliminating steps we don't need, we also save money," one engineer boasted. And, he might have added, the company cuts labor costs and improves productivity.

What happens to those whose jobs are eliminated? They are "absorbed in other parts of the plant," according to Wilbur Ruff, Community Relations Director at the Manville plant. But that's not the whole story. J-M has cut its Manville work force in recent years, mostly by attrition—that is, by not replacing many retirees and others who leave the plant. In the six-year period during which J-M was reducing dust levels, the non-salaried work force at the Manville plant dropped almost 45 percent.

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**Health PAC: Did you file for compensation?**

J-M worker: Yeah I went twice. First time I went to the union lawyer, he wanted to give me $250. He wanted to settle out of court. I was out almost six months, and he wanted to give me $250. I dropped him in court. My new lawyer saw I had 25% disability, and got me $2,100 out of it. for six months and almost losing work, that's all I got."
and Paul Gross, formerly medical director of the Industrial Health Foundation and now at the Medical College of South Carolina. And, with little Federal or union money available, money from industry can be expected to dominate asbestos research as it has in the past.

So total is the company’s hegemony over this research that Matthew Swetonic, Executive Director of the Asbestos Information Association, boasted recently "it would be extremely difficult to find a credible researcher in the country whose work in asbestos has not been or is not

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**SCIENCE FOR SALE**

Asbestos was the first hazardous substance for which exposure standards were set under the federal Occupational Safety and Health Act of 1970. Industry took great interest in the proceedings, and if the outcome is a portent of the future, it has little to fear from the federal government.

In December, 1970 Secretary of Labor James Hodgson set a temporary standard of five asbestos fibers per cubic centimeter of air (5 fiber/cc). Hearings on a permanent standard were held in March, 1972 and at that time the National Institute of Occupational Safety and Health (NIOSH) recommended that the level be lowered to 2 fibers/cc. The asbestos industry was up in arms.

Secretary Hodgson commissioned a study by the A.D. Little Company to determine the cost to industry of meeting the proposed standard. A.D. Little proceeded by simply asking officials of 12 asbestos companies and 13 ship building firms to estimate their costs for achieving the standards in question. It did not try to evaluate these estimates itself, nor did it ask a single independent engineer or engineering firm to do so. Not surprisingly, A.D. Little recommended that the exposure limit remain at 5 fibers/cc.

During the hearings, J-M’s chief science adviser, Dr. George Wright of St. Luke’s Hospital in Cleveland, cited five experiments to support the corporation’s contention that 5 fibers/cc is safe. Four of the five were bought and paid for by the asbestos industry and are scientifically faulty in several respects. For example, none of the four adequately takes into account the average 20 to 30 year time lag between initial exposure to asbestos and the incidence of disease. The studies included workers who had been employed for relatively few years in the industry. Since not enough time has elapsed for them to show signs of disease, no matter what their exposure, the incidence of disease for the entire group was consistently underestimated.

Furthermore, scientists focus particular attention on those workers who have low levels of exposure, in order to see which level is safe and which is not. Thus the presence of spuriously “healthy” workers biases the results just at those exposure levels most critical in determining what a safe level should be.

Even in the one study not financed by industry, Dr. Wright took a finding out of context to support industry’s contention that a 5 fiber/cc level was safe. He completely ignored the researchers’ own precaution—that their results were preliminary because of the relatively short exposure times of the workers (which averaged only 17.4 years).

These criticisms of the industry-financed experiments are only the most serious however. There are many others. For example, the statistical analysis of the McGill University study by Dr. J. C. McDonald was called “deplorable” by Herbert Seidman, Chief of Statistical Analysis for the American Cancer Society.

It is understandable, of course, that a Johns-Manville spokesman would quote experimental results that support industry’s point of view. The problem is that is economic resources permit the asbestos industry to buy research that will back up its viewpoint. Hence viability and life are given to scientific ideas that are outmoded and even discredited.
presently being supported, at least in part, by the asbestos industry.” Swetonic may be right. But, if past precedent is any indication, neither workers nor consumers have much to look forward to.

**J-M’s Economic Future**

Fundamentally, occupational health and safety remain an economic, not a technical problem. J-M’s responses—from its treatment of victims to its research programs—reflect the corporate need to save and make money. J-M claims to have spent about $3.5 million yearly for the last seven years on technical improvements in its plants. But J-M has not assumed this financial burden itself. It has pushed some of the cost of technological improvements off onto its foreign customers who have increased their demands for asbestos in the last few years. J-M’s 1971 sales reached an all-time high of $685.1 million—a 10 percent increase over 1970. And profits for that year were $53 million (8). So the cost of cleaning up J-M plants would have amounted to a mere 6.6 percent of its yearly profit at most, even had J-M in fact paid the price.

Making a virtue of necessity, J-M has made health and safety a profit-making venture. By voluntarily lowering the exposure levels in its plants and anticipating the government’s actions, J-M will profit in the long run. “J-M is gaining business from smaller companies who are unable to manufacture a particular product without going over the exposure level,” according to Joe Mondrone. In fact, the outlays for dust collection equipment and

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**DANGEROUS WARNINGS**

The warning labels presented by the asbestos industry in Congressional testimony and the regulations ultimately settled upon by the Department of Labor follow the infamous example of the collusion between government and the tobacco industry in setting the warning labels for cigarettes and the drug industry in labelling the hazards of the Pill.

February 23, 1972 recommendation for warning label of the Department of Labor’s own Advisory Committee on Asbestos:

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DANGER
CONTAINS ASBESTOS FIBERS.
DO NOT MAKE UNNECESSARY DUST.

DO NOT BREATHE DUST—MAY CAUSE ASBESTOSIS AND CANCER
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June 7, 1972 final warning label published by the Department of Labor in the Federal Register:

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CAUTION
CONTAINS ASBESTOS FIBERS.
AVOID CREATING DUST.
BREATHING ASBESTOS DUST MAY CAUSE SERIOUS BODILY HARM.
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industrial hygienists, implicit in the requirements of the federal Occupational Safety and Health Act (See BULLETIN, September, 1972), suggest that large companies will have a competitive edge—much as mine safety laws have functioned in the coal industry. And, despite company claims that none of its competitors has been forced out, a small Pittsburgh-Corning plant in Tyler, Texas, closed in February, 1972 following a federal inspection.

Not surprisingly, J-M is selling the services of its technical experts to firms in other industries who want to know how to meet health and safety problems effectively. And, finally Johns-Manville's new line of products in environmental controls is one of its "hottest growth areas" (9).

And, just in case the asbestos rug is pulled out from under J-M, President W. Richard Goodwin hopes to be several steps ahead. J-M is already substituting other materials for asbestos and is acquiring fiberglass companies.

All in all, J-M is considered by many investment brokerage firms to be the "picture of financial health" (10).

Health vs. Jobs

Good as J-M's prognosis may be, the

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**PERSONAL TESTIMONY**

One of the men in the asbestos workers' union, who, before he died, used to walk backwards. I had never seen this before until I began to care for asbestos workers.

You may wonder why asbestos workers walk backwards. They don't always walk backwards. It is only going upstairs. They are so short of breath that after two steps they have to sit down. It is easier to go up a flight of stairs backwards than walking up. It is a terrible way to die."

Dr. Irving Selikoff—testimony before Senate Labor Committee in support of the federal Occupational Safety & Health Act of 1970

"I read in one of them man's magazines (giggles) about asbestos. You know it's not safe to work any place anymore. My girl friend, works in a flour mill. They got the dust there. Another friend works sewing, you know in a garment factory, the dusts there. But I guess this dust is worse than the other kinds. I don't know why. . . . I never thought it would do this to my lungs 20 years ago. . . . I don't know if I want to go and find out if I have it."

—J-M worker

"Maybe I should retire now. I don't feel good at all. At night time I can't sleep even when I'm not working. It just seems like I'm sore all over. Now I even got pains in the chest and down the back and everything. I'm even off this week, and I get tired. . . . My wife don't sleep with me. I cough too much at night. I'm 43 and I feel like 75."

—J-M worker
same cannot be said of its workers. Past exposure dooms J-M workers for the next several decades. And, because no safe exposure level for asbestos has been found, this loss of life can be expected to continue even further into the future.

Short of closing down asbestos plants, the best solution would be automation of the production process, thereby removing workers from the exposure. While this appears technically feasible, in the present society it would be a disaster. Virtually all production workers, such as those in Manville, would lose their jobs and would be left to their own resources to find new ones. As one worker commented: "I'm 52. I been workin' at J-M 27 years. Who would hire me? Where else could I go?"

A planned and people-oriented system could find alternative jobs for displaced workers. Then automation could be, in the fullest sense of the term, life-saving.

But our society does not have this commitment. Instead, it must discard people when they are no longer economically useful—as it has done to miners and aerospace workers to mention only two examples. Thus workers continue to be forced into the no-win "choice" between their jobs and their lives. No wonder then that they are afraid to push for strong health and safety measures. Clearly, if occupational health and safety problems are to be dealt with in real terms, they must be fought out in the larger context of worker struggles for economic security, humanized working conditions, and control over decision-making both in the plant and in society generally.

—Marsha Handelman and David Kotelchuck

References

3. This J-M research was described in a 1972 report by the National Institute for Occupational Safety and Health (NIOSH) as of no use in setting an asbestos standard see note 7, p. III-12.
5. A merger just last August with the United Pulp and Sulphite Workers created the United Papermakers International Union with a total membership of 450,000.

News Briefs

Man on the Move

Expressing his desire to help save the cities by forming a "coalition of concerned citizens," George Romney, resigning as Secretary of Housing and Urban Development, will be nominated for a seat on the board of the Johns-Manville Corporation at its annual meeting on March 28, says the New York Times.

Shell Shocks

In a major test of health and safety rights on the job, nearly 4000 Shell Oil Company workers have been on strike since January 26, 1973. Their chief demands include regular physical examinations, maintenance of sickness and death records, worker and union access to these, and monitoring of toxic chemicals. Similar clauses have already been won at all other oil companies by the parent Oil, Chemical, and Atomic Workers union. OCAW officials have asked supporters not to buy Shell products during the strike.

Letters

Just finished reading your Health/PAC Bulletin, No. 44, and I must admit its one of the most straight forward pieces of material I've read regarding Health & Safety.

In the article "Greasing the Corporate Wheels" (pg. 10), I do believe you were talking about our plant, wheeling people back to work, just to keep from having lost time injuries.

Keep up the good work and some day we may have safe working places.

Sincerely your

James Copley Pres.
Local 533, U.A.W.
Box 587
Fostoria, Ohio
I am a steward in Teamsters Local 250, a soft drink worker local, and editor of The Voice.

In the past few months a good deal has happened here in Pittsburgh, though of course not nearly enough. We've gotten guards placed on machines, in my own plant and some others, and safety helmets, earplugs, and goggles issued. Outside lighting and new propane hoses were installed at Pepsi after a threat to file an OSHA complaint, and we are now working on forcing Pepsi to reline a bottling room with sound absorptive tile, as the decibel level is about 97 and the foreman tell the operators to “wear the earphones around your neck if you want, just as long as you got them with you in case the inspectors come”. It’s that kind of apathy that we’re got to fight against.

About a month ago at the local Canada Dry plant, a new man with only ten days in lost his balance on a soaker and leaned against a guardless machine to catch his balance. The belts ground off two of his fingers in less than a second. The company replaced the guard, but no others. Two days later another man got his pants leg caught in some kind of chain drive with no guard on. It pulled his skin into the gears after his pants, and than started to gnaw up his kneecap. That evening they replaced that guard too, but no others. Company apathy is strikingly rampant.

I’ve received an o.k. to look into the costs of a noise meter for our local. If you know where these devices are made, and have any info as to their costs, I would appreciate it if you could give me the information.

I hope you Health-PAC people don’t ever quit your work. Most people in labor rose up from simple labor jobs, and don’t have half the education or the insight into the company’s real objectives (profits, productivity, and corner cutting) to actually know how to approach the problems. They, unfortunately, think the companies want to work with us, an unfortunate conclusion.

Sincerely,
Daniel Kablack
Teamsters Local 250
Pittsburgh, Pa.