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PLAINTIFF'S
EXHIBIT
DUP-1433

TO

L. V. Thatcher
C.W.C.

FROM:

W. E. Neeld, Jr., M.D.
Med. Div.

Please Discuss With	For Approval	For Attention	For Information	Note and Forward To File	Note and Return To Sender	Forwarded For Your Request
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For your interest

CURRENT STUDIES INDICATE THE TLV FOR ASBESTOS IS TOO HIGH

Evidence suggesting that the Threshold Limit Value for exposure to asbestos-containing materials is too high was presented at the Western Industrial Health Conference in San Francisco, September 29-30 by Leroy Batzer, Research Specialist in Industrial Hygiene at the University of California's School of Public Health (Berkeley, Calif.), who reported on studies of insulation workers in the San Francisco Bay area. Some of his information is summarized below:

The midjet impinger was used for environmental sampling for dust exposures both in the breathing zone and in general air. The membrane filter was used in evaluating the environmental exposure to fibrous materials. Samples were collected using Millipore Type AA filters in field monitor cases connected to personal air samplers and attached to the workers for periods ranging from 30 minutes to 2 hours. The fibers were counted by clearing a wedge-shaped segment of the filter using a modified technique of the U.S. Public Health Service at 430 X magnification, using phase contrast illumination.

Although the insulation worker in the Bay area works with asbestos-containing products 45% of the time, his overall time-weighted average exposure to asbestos-containing materials is below the presently recognized TLV of 5 mppcf specified by the American Conference of Governmental Industrial Hygienists. The three work areas in which the dust levels were above the TLV (prefabrication, tearing out, and mixing) account for less than 20% of his total work time, however, the incidence of radiographic changes indicative of asbestosis is over 25% in men with 20 years or more of work. That the present TLV for asbestos is not preventing asbestosis is supported by these observations coupled with reports from some asbestos industries which have experienced a decreased incidence in asbestosis following a reduction in dust counts well below the TLV.

DUP 1110827

DU 054820

Government Bows in \$100 Million Case

Asbestos Suit Burns U. S.

Tyler, Texas — (AP) — The Federal Government has agreed to pay \$5.75 million to settle its share of a multimillion-dollar suit filed by 445 asbestos workers who said they were unknowingly exposed to cancer-causing materials.

The action, announced yesterday by U.S. District Judge William Steger, settles a \$100 million lawsuit filed by the 445 workers. It was the largest personal injury suit ever filed against the Federal Government.

Judge Steger said settlement offers from private defendants in the suit

would bring the total amount paid to the asbestos workers to \$20 million.

Last December, in a memorandum, attorneys for the Department of Health, Education and Welfare warned that if the asbestos workers won their suit, a precedent would be set which could make the government liable for damages anytime a workplace that was inspected by federal officials — or should have been inspected — proved unsafe.

A Justice Department spokesman said in Washington last night that the settlement in no way implies that the

government admits any negligence on the part of federal safety inspectors.

The workers sued the government and several private firms on grounds that their negligence resulted in on-the-job exposure to a type of asbestos called amosite, which has been shown to cause lung cancer in humans.

The suit was filed in 1974 on behalf of asbestos workers at a Tyler plant which was co-owned by PPG Industries and Corning Glass Works. The plant was shut down in 1972.

The plant manufactured asbestos pipe insulation, some of which was used in navy vessels. The U.S. government was sued because the workers argued it had a responsibility to ensure safe working conditions at the facility.

Although the legal tangle has been unsmarled, the human problems are just beginning.

Officials of the Texas Chest Foundation, in charge of a medical diagnostic program for the plant's former workers, said the outlook is bleak for the 1,000 people who worked at the plant at various times. One study said even short exposures to asbestos carried "a significant risk" of asbestosis, gastrointestinal malignancies, lung cancer and mesothelioma — all forms of cancer or lung disease.

20% of Cancer Deaths Tied to Jobs

Washington — (AP) — Exposure to cancer-causing chemicals in the American workplace may cause at least 20 percent of cancer deaths each year — or nearly 80,000 fatalities — with asbestos the No. 1 chemical killer, government scientists say.

The new estimates are sharply higher than past figures, which placed the cancer toll from occupational exposure at 1-3 percent, said Joseph A. Califano Jr., secretary of health, education and welfare.

Asbestos may account for 17 percent of all cancer deaths annually. Other chemical culprits include arsenic, benzene and vinyl chloride.

The study listed a dozen occupations in which it said the workers showed excessive cancer rates that have not been traced to any single chemical. The jobs included coal miners, chemists, foundry and textile workers, printing pressmen, metal miners, coke byproduct workers, cadmium production workers and lead, rubber, wood and leather workers.

Scientists from the National Cancer Institute and the National Institute of Environmental Health Sciences said 20 percent was a "conservative" esti-

mate of the cancer toll, which could run as high as 38 percent.

The National Cancer Institute says 390,000 Americans die from cancer annually. The new 20 percent minimum estimate would mean 78,000 deaths. The number of new cancer cases diagnosed each year is 700,000.

The scientists based their findings not on new medical research, but on new statistical analyses of the number of workers exposed to cancer-causing chemicals and their risk of developing cancer.

The study singles out asbestos, the fire-resistant chemical used in a host of fields from construction to auto brake linings, as the worst offender. HEW began a campaign in April to alert the estimated 8 million to 11 million Americans who have been exposed to asbestos since World War II about its long-term effects.

The HEW study said at least 2.15 million of those workers will die from asbestos-related diseases, or 67,000 a year for the next 30 to 35 years. It blamed asbestos for 17 percent of all cancer cases.

The study says 5.8 million workers were potentially exposed to arsenic, benzene, vinyl chloride, coal tar pitch and coke oven emissions, which could cause 1-3 percent of all cancers each year.

Some 7.5 million workers potentially were exposed to four other substances, chromium, iron oxide, nickel and petroleum distillates, which could cause 3-18 percent of the cancers, the

study added.

Califano told an AFL-CIO conference on occupational safety and health about the new estimate and released a five-page draft summary of the study yesterday. HEW scientists are putting the study into final form to submit to the Labor Department's Occupational Safety and Health Administration by Friday.

OSHA is preparing new standards for regulating hundreds of known or suspected cancer-causing agents at workplaces in hopes of accelerating federal action to ban or restrict them.

Critics of the plan have said it could cost industry billions of dollars, and some have said the standards are not needed because the incidence of occupational cancer was low.

DUP 1110907

DU 054901

The Asbestos Time Bomb

Lodged in the lungs of nearly everyone breathing in today's industrial world are tiny fibers of asbestos which may represent one of the most frightening health hazards yet uncovered. Based on what has been learned from studies of asbestos workers over the last fifty years, the fibers could be the harbingers of a large-scale epidemic of lung cancer and an even more devastating malignancy known as mesothelioma.



Credit for sounding the asbestos alarm in this country goes to Dr. Irving Selikoff of the Mount Sinai School of Medicine of the City University of New York. About eight years ago, several studies carried out in this country, England, and South Africa convinced him that asbestos was not as inert and biologically harmless as originally believed.

Since the 1920s, we have known that asbestos workers employed in the industry for long periods of time were dying of asbestosis, a kind of pneumonia associated with a buildup of fibers in the workers' lungs. Although asbestosis is not considered a malignant disease, the prognosis for asbestos workers began to look even worse in the 1930s, when physicians in several countries found that asbestos workers had about ten times the lung cancer risk other workers did. Lung cancer is extremely difficult to treat and is almost invariably fatal if not detected and treated at a very early stage. More bad news was yet to come. Asbestos workers were also dying of mesothelioma, a rare but deadly cancer which affects the lining surrounding the lungs and body cavity. Until it cropped up in asbestos workers, physicians infrequently encountered the disease.

Dr. Selikoff's own recent studies of 632 asbestos workers employed for various periods between 1943 and 1974 clearly implicate asbestos as a major cause of cancer. He found that 89 of the workers died of lung cancer, compared to an expected 12 deaths from the disease in the "normal" population. And in a group of 632, where no case of mesothelioma was expected, 35 died of the disease. More significant was the fact that even though many of the workers had been exposed to asbestos for periods of as little as a few months, they had apparently inhaled the seeds of cancerous conditions that flowered twenty to thirty years later. In spite of these ominous statistics, accumulated over a period of fifty years, the asbestos

problem is only now beginning to be taken seriously.

"I can't explain that quiet period," Dr. Selikoff says. "The industry grew fivefold, but nothing was done to warn or protect the workers. No asbestos dust counts or other precautions were taken in asbestos plants. Unfortunately, now that we are finally aware of the dangers involved, we find that instead of a small problem, we have a huge problem."

What makes the asbestos problem so huge is that nearly everyone's body has been invaded by fibers from an industry which mines 3 to 4 million tons of asbestos every year. Asbestos is used in insulation for walls and furnaces, in fireproofing sprays for large skyscrapers, in floor and ceiling tiles, in automobile brake linings, in cement piping, for filtering beer and wine, and in scores of other applications.

The possibility that asbestos is contaminating people who never worked in the industry comes from studies in South Africa which clearly show that people who live near asbestos plants, or close relatives of employees who work there, have developed lung abnormalities and in some cases cancer. The circle of contamination may be widening still further. Asbestos fibers have been found in the air and water of many large cities and almost universally in the lungs of their inhabitants.

Dr. Selikoff is concerned that even more asbestos will be spewed into the air we breathe as old buildings containing an estimated 25 million pounds of the mineral fibers are torn down or subjected to routine maintenance. Also, he says, another million workers in some 300,000 brake maintenance garages throughout the United States are exposed to daily doses of asbestos. After six years of litigation, Reserve Mining in Minnesota has been forced to stop dumping asbestos-containing tailing from its taconite iron ore mines into Lake Superior, as it has been doing at a 67,000-ton-a-day clip since 1955. Because of the company's contamination of 2000 square miles of Lake Superior with asbestos, Dr. William Nicholson, Dr. Selikoff's colleague at Mount Sinai, estimates that "the fibers ingested by persons in the Duluth area over a period of 15 to 17 years can be as many as workers inhale in their occupational experience."

To counter the rising levels of asbestos in the air both inside and outside asbestos plants, the EPA and other federal agencies have established new standards that limit asbestos concentrations to two fibers per cubic centimeter of air. However, Dr. Selikoff is disturbed that in spite of the large-scale contamination of Lake Superior, similar standards for water are being delayed by a debate now under way as to whether asbestos is as harmful when taken in with water as it is when inhaled into the lungs.

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DU 054905

Further, he says that even with the new federal recommendations for "dust counts" and other protective measures, "virtually no inspections are carried out in asbestos working areas by the agencies who should be routinely doing those inspections."

Hit by a number of potentially costly lawsuits which hold that Johns-Manville Corporation, a major producer of asbestos products, failed to protect its employees and warn them about the hazards of asbestos, that company has initiated many stringent procedures which Selikoff says are the best in the business. They include ventilation hoods and air filters for catching asbestos fibers, protective masks and clothing, and other safety measures. The company also labels its asbestos products with warnings to the consumer of the potential hazard involved. Confident that the company can handle the asbestos problem, Johns-Manville has no plans to cut-back production. In fact, spurred by an increasing demand for their products, they spent \$75 million last year to expand mining and milling facilities in Asbestos, Quebec. But the asbestos time bomb has a long fuse, and the company's problems may not be over. As Roy Steinfurth, head of the Asbestos Workers and Insulators health hazard program, puts it: "We expect to see many more claims, because more people are dying of asbestos disease. We're just now starting to hear of cancer and asbestosis among guys who started working around World War II."

Dr. W. Clark Cooper, the California scientist who headed a National Academy of Science panel on asbestos five years ago, says that a shift to new insulation and fireproofing materials, along with recent government attempts to regulate asbestos emissions in plants, construction sites, and other chancy areas, have considerably improved things for the worker and the population at large in the period since the report was issued. However, he points out, we won't know how seriously the asbestos problem affects the rest of the population until scientists learn more about the effects of the lesser amounts of asbestos inhaled by non-asbestos workers or leached into the water supply from natural asbestos deposits. That will involve performing many autopsies, measuring the amount and location of the asbestos fiber, and then attempting to make some correlation between those levels and the cause of death.

Verdict: The asbestos time bomb is still ticking

Health risk with asbestos called high

NEW BRUNSWICK (AP) — A Yale University researcher said at a hearing on spray-on asbestos materials that the hazards of the substance are higher than is widely known.

Dr. Robert Sawyer of Yale, a physician and engineer, said he has done research on asbestos hazards in building and thinks measures should be taken to insure the health of occupants.

"If you have an exposed sprayed asbestos ceiling and its friable, you have an asbestos exposure hazard. No two ways about it," he said at a Department of Environmental Protection hearing.

Sawyer said his studies have found illegal levels of asbestos in office buildings that appear to be well maintained. To remedy the situation, the sprayed on asbestos should be removed because it could flake off, he said.

He did not comment directly on banning the spray-on products.

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