

Once active, mesothelioma spreads swiftly. This X-ray photograph shows a lung covered with cancerous growth.

the Manville plant), such as the company's research laboratory or its maintenance shop, cancer accounted for 40 per cent of the workers' deaths, asbestos for approximately 5 per cent. "What was happening," I was told by Dr. William J. Nicholson, an associate of Selikoff's at Mount Sinai, "was that, about asbestosis, these people lived longer, which gave them time to die from cancer, also caused by asbestos."

A second point made by Selikoff was that the monitoring techniques used to ascertain the fiber count set by the Department of Labor record only long fibers, although shorter fibers are equally capable of causing cancer. Moreover, a cubic-centimeter sample of air containing the admissible count of five long fibers there may be ten to 100 times as many short fibers. And it is these uncounted ones that remain in the air the longest. (In a recent conversation I asked Dr. Selikoff what these figures meant in terms of the numbers of fibers an asbestos worker in an eight-hour work day. Each of us inspires approximately one million cubic millimeters of air in an hour, he explained. Thus, in eight hours men and women assigned to sections of an asbestos plant where the five-fiber count obtains inspire some forty million fibers. If so-called short fibers are taken into account, the number of fibers inspired rises to around four billion.)

While Dr. Selikoff and other medical researchers stressed health factors at the Labor Department hearing, asbestos industry spokesmen emphasized economic considerations. Henry B. Moreno, Johns-Manville's senior operating vice-president, asserted that to achieve a two-fiber-count level in all of its asbestos factories would cost about \$12 million in capital expenditures, plus some \$5 million in additional operating expenses each year. This would mean, he said, that the company would simply have to shut down the dustier operations in the Manville plant and fire 800 employees—all but killing off the economic life of the town. Nor, he argued, would the effects of a two-fiber standard stop there. Other asbestos companies would be forced to lay off workers; they would have to begin buying asbestos materials from abroad. "It is obvious," said Moreno, "that the overall effect of lowering



the present [standard] to two fibers per cc. would have a very substantial effect on our nation's economy."

In July Hodgson—rebuffing both his Advisory Committee on Asbestos Dust and the House panel—agreed to allow the exposure standard to remain at five fibers for four more years; only in 1976 would the standard be lowered to the safer-sounding count of two fibers. Johns-Manville welcomed Hodgson's decision. "The new occupational health standard for asbestos issued today," declared a company notice to stockholders, which came out the same day as the Labor Secretary's decision, "will have no tangible effect on sales and earnings of Johns-Manville Corporation." The release went on to say that between now and the department's 1976 deadline company officials would have to study the "economics and overall profitability" of the Manville operation.

Asbestos Fiber Countdown

The chart below shows percentages of asbestos-fiber-count samples obtained at work stations representative of all those in full operation at the time at Johns-Manville's Manville, New Jersey, plant during four years for which such counts are available.

	Less than 2 fibers	2-5 fibers	5-12 fibers	More than 12 fibers
1965	15.6	24.8	51.3	8.3
1967	9.8	13.7	25.5	51.0
1971	14.0	11.2	43.9	14.9
1972	91.0	9.0		

(Figures provided by Sheldon Samuels, director of health and environmental affairs for the AFL-CIO's industrial union department)

time before deciding whether it would meet the reduced exposure standards or close down much of the plant. (Apropos of Johns-Manville's priorities, it might be noted that, while the company expressed qualms about spending more money to make its factories safer places to work in, it recently spent \$25.9 million to transfer its corporate headquarters from New York City to a pristine setting twelve miles outside Denver.)

Dr. Selikoff took a different view of Hodgson's four-more-years decision. Estimating that some 100,000 men and women will enter asbestos-related industries before the fiber count is lowered in 1976, he predicted that 20,000 of them might be expected to die of lung cancer, 7,000 of mesothelioma, and another 7,000 of other cancers and asbestosis—a high rate of death from these diseases that could, and should, have been lowered.

1972 proved to be a paradoxical year in Johns-Manville history. In Washington, as we have seen, the company spokesman after the other had predicted dire financial results not just for the industry but for the entire economy if the fiber count were lowered. Back in Manville, however, company engineers were bringing the count way down without causing a dip in the dividends. At the hearings Sheldon Samuels, director of health and environmental affairs for the AFL-CIO's industrial union department, had told spokesmen for the industry this could be done; the spokesmen had insisted it couldn't. Fiber-count statistics provided by Samuels (see box) are revealing in a number of ways. Not only do they make dramatically clear how vastly the situation at Manville improved in 1972; they also indicate that controls were slack well into the supposedly safe Sixties.

With 91 per cent of the plant now operating within the standard set for 1976, things are looking up at Manville. Even such critical observers as Dr. Hosow and Dr. Selikoff say that they are impressed by the changes made. Still, these tardy improvements are small comfort to people like Smitty, who "can't do anything." Nor shall they benefit those Manville citizens who in the next few years will suffer from having worked at or lived near the plant when conditions were far more hazardous than they are today. □