PLAINTIFF'S EXHIBIT

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PRODUCTS IN USE

Encapsulating Asbestos Fiber Reduces Manufacturing Hazards

"As far as we are concerned, asbestos is not the 'villain' it is purported to be," says Frank T. Wardley, president of Quin-T Corp., an electrical insulating paper, tape and board manufacturer based in Tilton, N.H.

Quin-T uses asbestos in its manufacturing process, and has taken a series of precautions to ensure that its products, in Wardley's words, "pose no health risk in most end-use applications."

Wardley says asbestos is a cost-effective material for Quin-T to use. He says asbestos-based electrical insulations have excellent moisture resistance, dimensional stability, retention of dielectric strength—particularly at high temperatures—and quick heat dissipation.

Quin-T receives shipments of raw asbestos fiber in kraft paper-wrapped high-density blocks that are palletized for easy loading, shipping, storing and handling, according to Wardley. The packaging technique was developed by Johns-Manville, and



This palletized load of asbestos blocks is transported to Quin-T's beater/pulper station, where it will be pulverized into a fibrous foam. These high density blocks are extremely hard and said to be virtually impervious to damage and fiber release under normal handling conditions. An exhaust ventilation system at this station keeps the airborne fiber count below the OSHA exposure limit.

provides asbestos in 100 lb./cu. ft. blocks that are "virtually impossible to break under normal handling operations," says Wardley. He adds that the palletized shipments are stretch-wrapped at a Johns-Manville facility so that they stay intact until put into production.

Raw asbestos is actually handled by Quin-T work only once in the production operation, according to the company's president. At the beater/pulper station, the blocks of asbestos are fed into a pulverizer to be broken down into a more usable fibrous state. The kraft wrapper is not removed during handling, thus safeguarding against fiber emissions. Wardley says that the remnants are eliminated in the production sequence.

Quin-T employs an exhaust ventilation system at the beater/pulper station to help keep the fiber count "well within the two fiber per cubic centimeter OSHA standard," explains Wardley. He

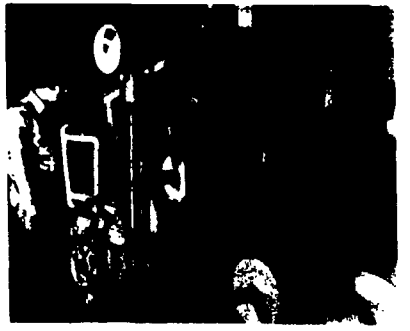


Encapsulating asbestos fibers into Quin-T products by saturants and binders seals the fibers and prevents them from being released during the trimming operation pictured above.

notes that exposure control has been verified by periodic industrial health studies conducted by the Division of Public Health Services of the New Hampshire State Department of Health and Welfare. "The latest measurement, taken in January, 1981, revealed only an 0.25 fibers/cc concentreation in this area," he reports.

The company's manufacturing process permits Quin-T's asbestos-based products to be safely used by customers, if handled properly, according to Wardley. "Our electrical papers and board have very low fiber release characteristics," he says. Quin-T encapsulates and seals the asbestos fiber into its products by saturants, binders, coatings and laminates, both singly and in combination. "This helps prevent excessive fiber release in a number of our fabrication processes, as well as in end-use applications," Wardley explains. He says that testing and counting procedures show the fiber measured in the air in most cases is no greater than the normal or ambient level.

Quin-T has developed a series of electrical insulations that are both bonded and sealed to further ensure the safe end-use application of these products.



Quin-T's slitting operation of asbestos-based electrical insulation paper requires an exhaust ventilation system to keep airborne asbestos concentrations significantly below the OSHA standard.

This involves sealing an already bonded sheet with a special coating, or laminating it to either glass cloth or various thicknesses of polyester film. The resulting combination has the dielectric strength, heat stability, and moisture resistance of the base paper, along with greater tensile strength, cut-through resistance, and conformability. The seal also reduces the possibility of fiber emissions to virtually zero. Tests conducted by the laboratories of the American Mutual Liability Insurance Company have verified this capability.

In 1978, OSHA issued a program directive that exempted an employer from providing health examinations or maintaining employee medical records if airborne asbestos concentrations fell below 0.1 f/cc. Wardley asserts that proper work practices in the manufacture of dry transformers, motors and generators, circuit breakers and switchgear, and similar equipment, can allow asbestos-based electrical insulating papers and boards to be "used without medical surveillance and the costs that would be incurred to meet this (OSHA) requirement." For information on asbestos fiber, contact Johns-Manville, Asbestos Fiber Sales, Ken Caryl Ranch, Denver, CO 80217.

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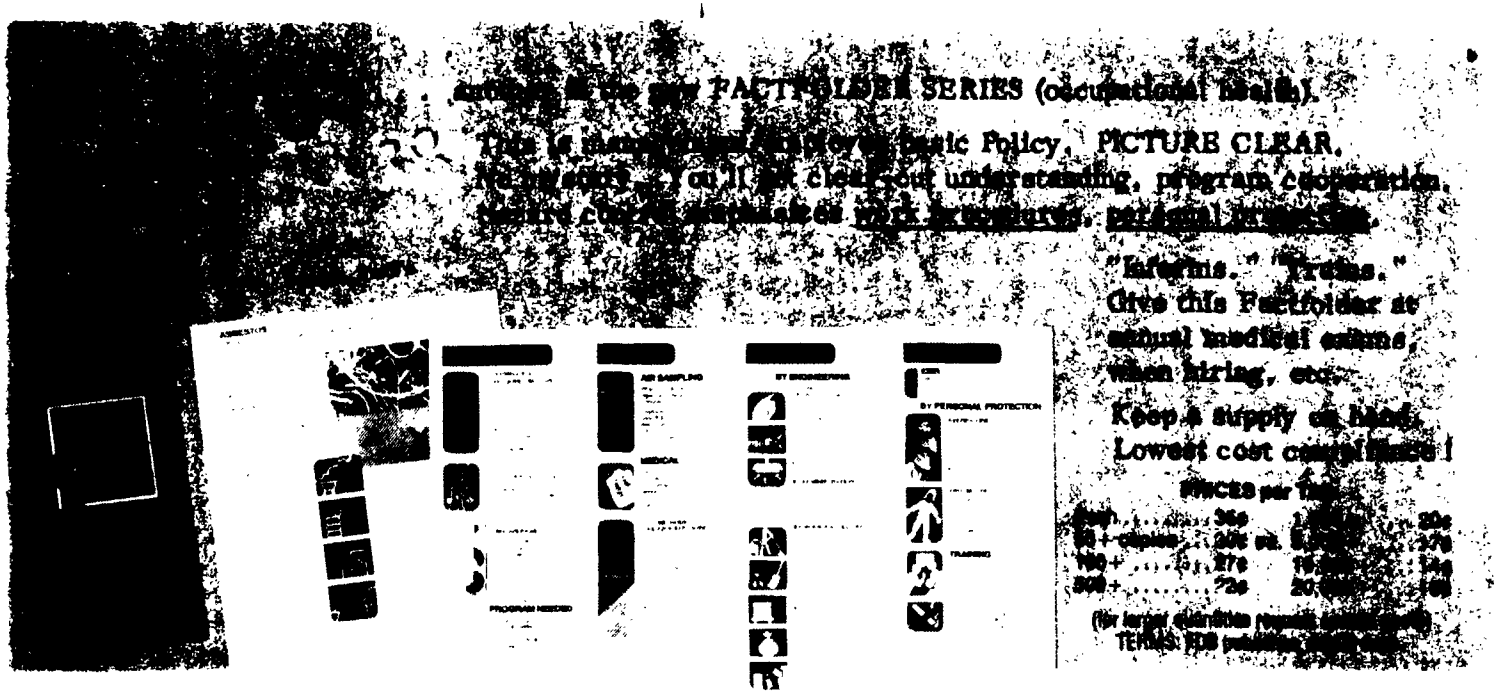

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