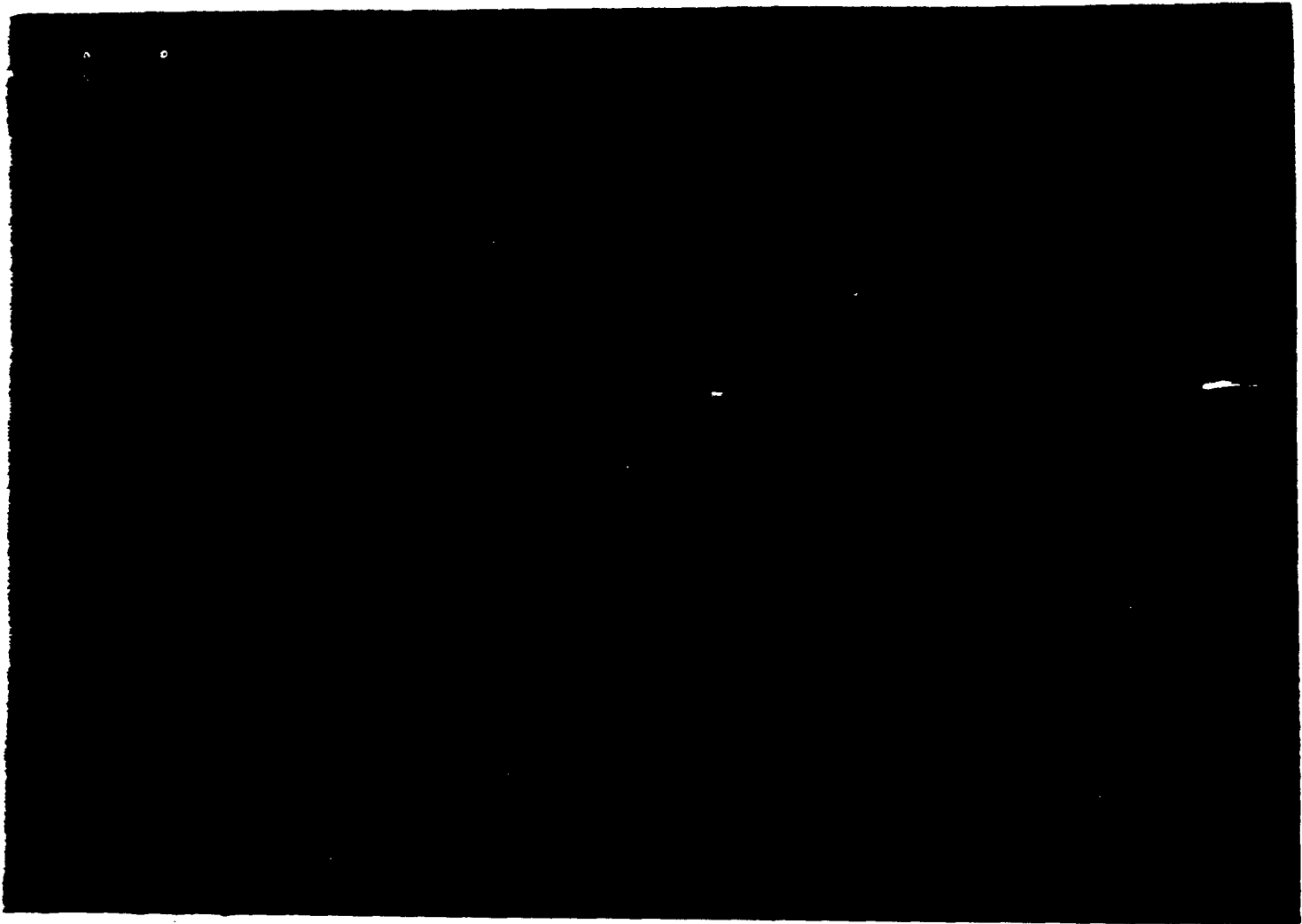


IN-PLANT FIBER HANDLING SYSTEM

An in-plant fiber handling system has been developed and tested at Jeffrey Mine. It includes a bag-breaking station and fiber pump, which conveys the fiber to mixers or weigh hoppers. The entire system requires approximately 3,500 cubic feet of air, and costs about \$14,500 plus piping. (Figure 7).

Aside from the fiber pump developed at Jeffrey, there are other items of equipment on the market that can be used to transport fiber. One is the Vando Blower, which has been used at Jeffrey to move 100 pounds per minute of Group 7 fiber 35 feet vertically and 2,000 feet horizontally, with the entire operation under duct control.

ST0513607



Another Jeffrey development is the automatic bag opener, which opens paper or polyethylene bags, dumps the contents and deposits the empty bag, all under dust control. It requires 800 cubic feet per minute of aspirating air, and costs from \$9,900 to \$12,500, depending on various controls.

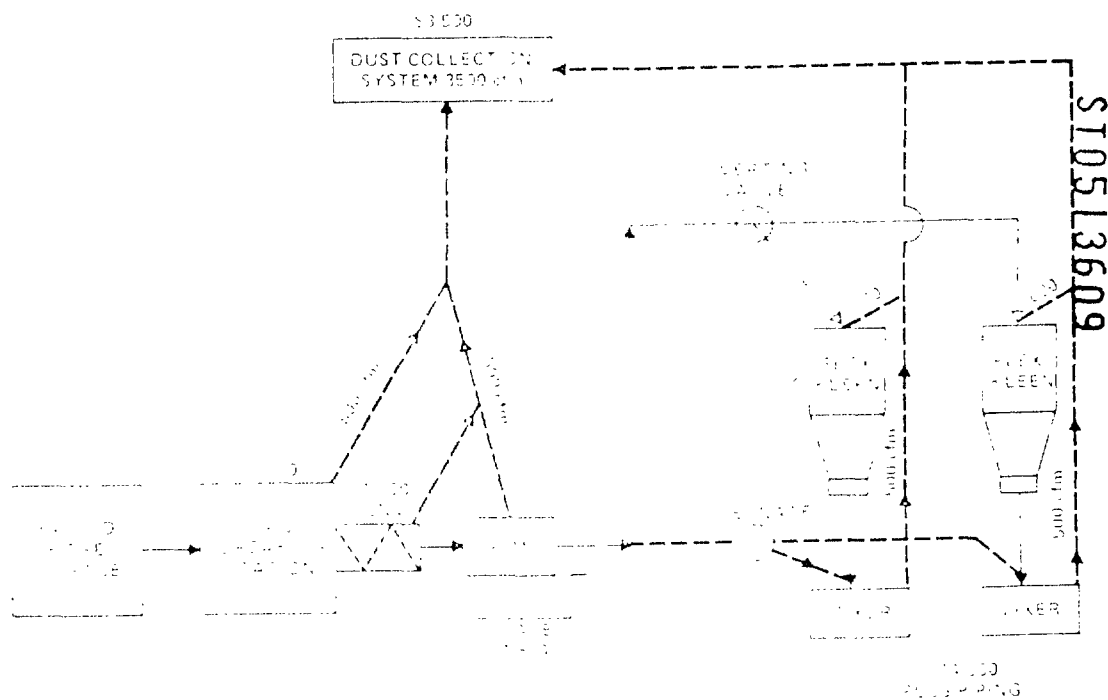
Fairmount Engineering, Inc., Hackettstown, N.J., has developed a bag opener at a quoted price of \$8,500.

According to J-M calculations, the entire cost of an in-plant fiber handling system including a Vanco blower, automatic bag opener and a bag baler, is approximately \$30,000, plus the cost of ducts. (Figure 8).



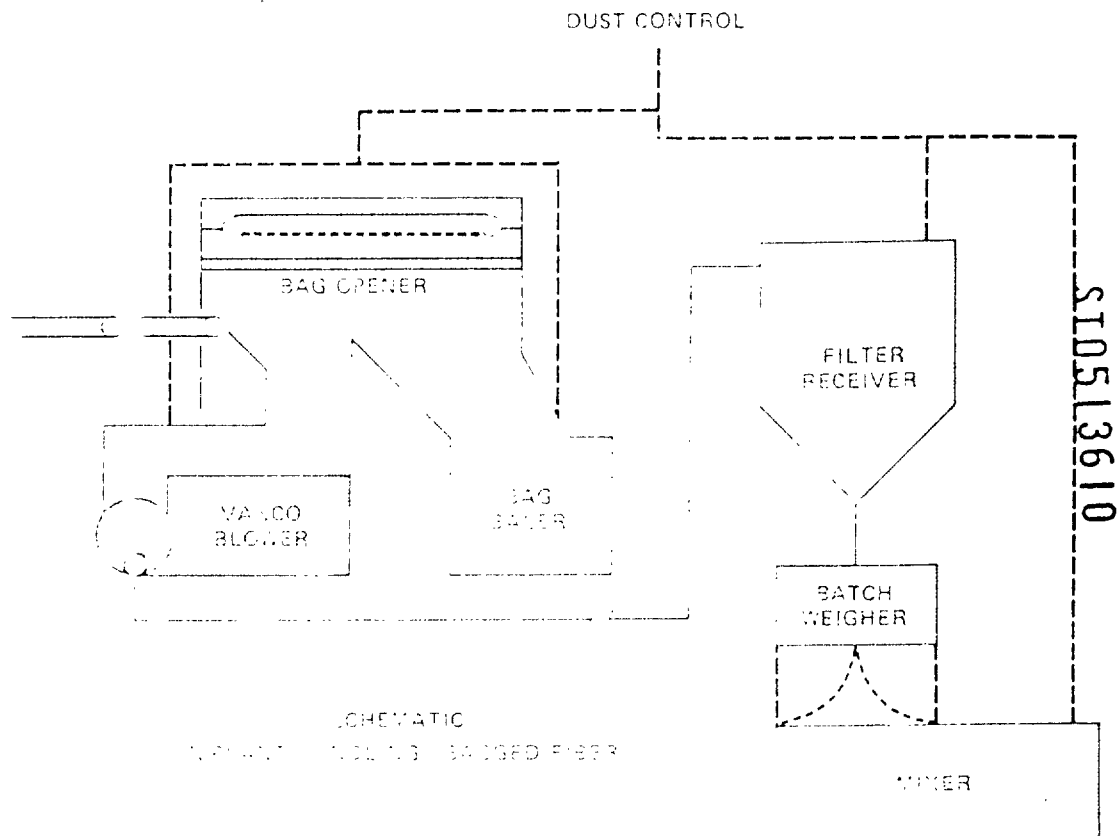
ST0513608

PROTOTYPE
PLANT ASBESTOS FIBRE HANDLING SYSTEM

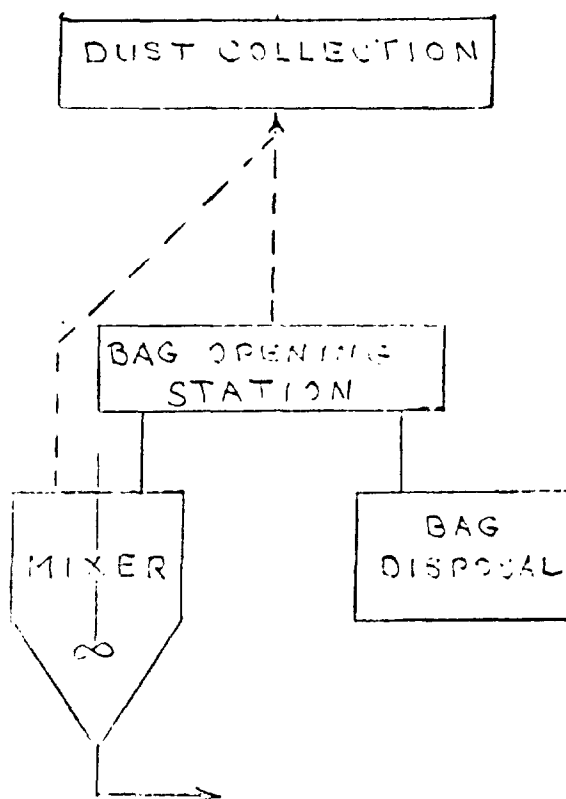


ST0513609

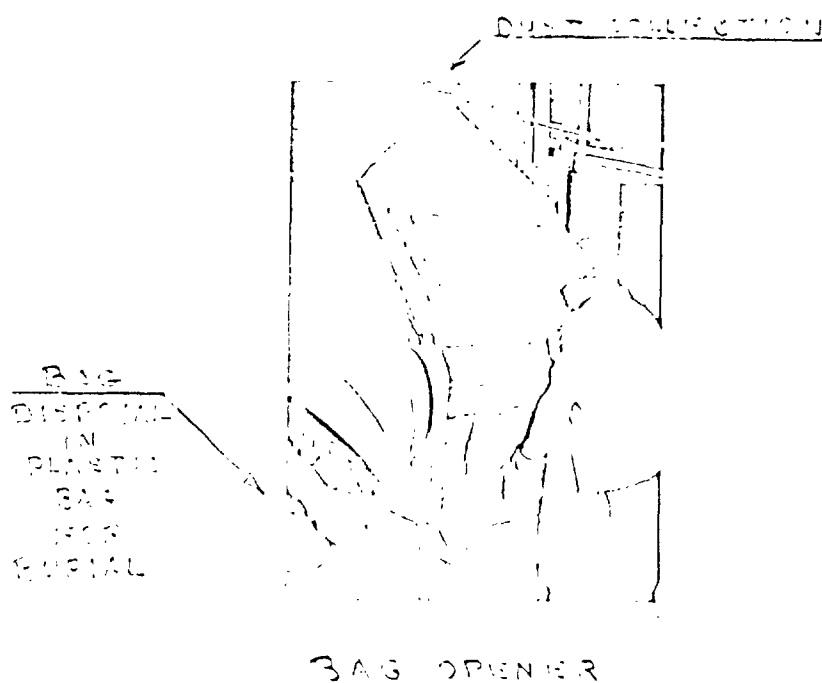
Figure 8



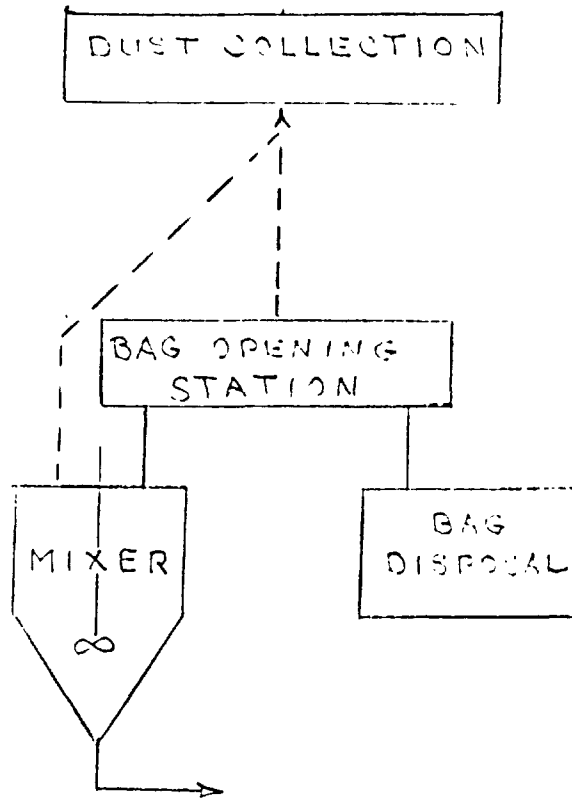
HANDLING BAGGED ASBESTOS



ST0513611

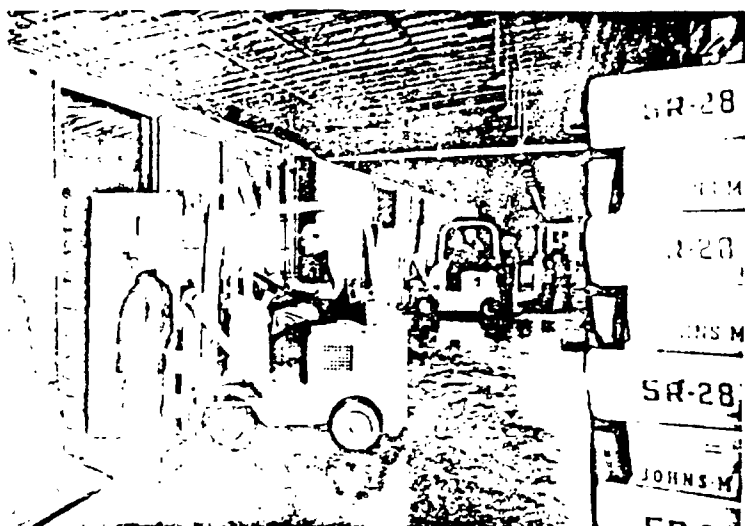


HANDLING BAGGED ASBESTOS



ST0513612





Asbestos is automatically packaged at the mill and shipped in impermeable bags to prevent dust exposure. (Photos: courtesy Asbestos Information Association/North America.)



In the manufacturing plant, bags of asbestos are opened and fiber handled in ways preventing exposure.

smoking. Studies conducted of as many as 17,500 asbestos insulators show that those who do not have a much greater risk of contracting lung cancer than non-smokers in the general public — that those asbestos industry men who do not now smoke cigarettes and who have never smoked regularly, have no greater risk of lung cancer than the average person in the street who does not smoke.

Mesothelioma

This disease is an extremely rare cancer of the lining of the chest (pleural) or the abdominal cavity (peritoneum). It is found more frequently among those with occupational asbestos exposure than among the general population. It also has been found among people who, in the past, lived in close proximity to uncontrolled crocidolite asbestos mines or mines, and even, on rare occasions, in the households of employees who worked in crocidolite asbestos factories or mines and presumably brought substantial quantities of this particular type of asbestos fiber into their homes on their work clothes. This has not been found to be the case with individuals exposed only to chrysotile asbestos, which accounts for 97 per cent of asbestos fiber used in the United States today.

Because the latent period for

mesothelioma ranges from 30 to 45 years, it is impossible at this late date to determine precisely the exposure levels experienced by these "neighborhood" and "household" cases. However, they were probably quite high by today's standards. In any case, as technology was developed for the control of asbestos dust levels, both in the plant and out, these potentially hazardous conditions have been greatly reduced, if not eliminated.

A relatively small number of cases have also been reported among employees in shipyards and on construction projects who, while not working directly with asbestos, were exposed to heavy concentrations of air-borne fiber by working in close proximity to those who did. Exposures of this type have been reduced by strictly enforced industrial safety devices and procedures.

Asbestos and the General Public

The Asbestos Information Association North America states:

There is no evidence — either from experience or from scientific research — that anyone in the general public has ever contracted any asbestos-related disease from exposure to minute amounts of asbestos dust being found in community

air, which are many times lower than those levels that have been demonstrated to result in no excess of disease in occupationally exposed populations.

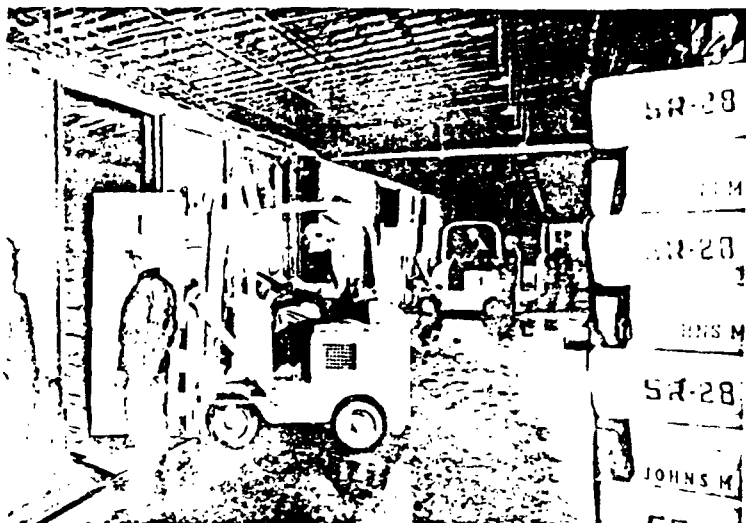
That conclusion is supported by both the Asbestos Panel of the National Academy of Sciences' Committee on Biologic Effects of Atmospheric Pollutants, and the 33-member Advisory Committee on Asbestos Cancers of the International Agency for Research on Cancer, a division of the World Health Organization.

In its 1971 booklet, *Asbestos, the Need for and Feasibility of Air Pollution Controls*, the NAS Asbestos Panel, which consisted of seven of the nation's experts on asbestos and health, stated:

There is no evidence that persons in the general population — without occupational, household, or neighborhood exposures — have any increased risk of neoplasia, even though there may be ferruginous bodies or fibers in their lungs.

According to the Asbestos Information Association, the report of the IARC Advisory Committee represents the consensus of present world medical opinion on all aspects of the asbestos-health problem.

ST0513613



Asbestos is automatically packaged at the mill and shipped in impermeable bags to prevent dust exposure. (Photos: courtesy Asbestos Information Association/North America.)



In the manufacturing plant, bags of asbestos are opened and fiber handled in ways preventing exposure.

smoking. Studies conducted of many as 17,500 asbestos insulaworkers show that those who have a much greater risk of contracting lung cancer than non-smokers in the general public — that those asbestos industry men who do not now smoke cigarettes and who have never smoked regularly, have no greater risk of lung cancer than the average person in the street who does not smoke.

mesothelioma

This disease is an extremely rare cancer of the lining of the chest (pleural) or the abdominal cavity (peritoneum). It is found more frequently among those with occupational asbestos exposure than among the general population. It also has been found among people who, in the past, lived in close proximity to uncontrolled crocidolite asbestos mines or mines, and even, on rare occasions, in the households of employees who worked in crocidolite asbestos factories or mines and presumably brought substantial quantities of this particular type of asbestos fiber into their homes on their work clothes. This has not been found to be the case with individuals exposed only to chrysotile asbestos, which accounts for 97 per cent of asbestos fiber used in the United States today.

Because the latent period for

mesothelioma ranges from 30 to 45 years, it is impossible at this late date to determine precisely the exposure levels experienced by these "neighborhood" and "household" cases. However, they were probably quite high by today's standards. In any case, as technology was developed for the control of asbestos dust levels, both in the plant and out, these potentially hazardous conditions have been greatly reduced, if not eliminated.

A relatively small number of cases have also been reported among employees in shipyards and on construction projects who, while not working directly with asbestos, were exposed to heavy concentrations of air-borne fiber by working in close proximity to those who did. Exposures of this type have been reduced by strictly enforced industrial safety devices and procedures.

Asbestos and the General Public

The Asbestos Information Association/North America states:

There is no evidence — either from experience or from scientific research — that anyone in the general public has ever contracted any asbestos-related disease from exposure to minute amounts of asbestos dust being found in community

air, which are many times lower than those levels that have been demonstrated to result in no excess of disease in occupationally exposed populations.

That conclusion is supported by both the Asbestos Panel of the National Academy of Sciences' Committee on Biologic Effects of Atmospheric Pollutants, and the 33-member Advisory Committee on Asbestos Cancers of the International Agency for Research on Cancer, a division of the World Health Organization.

In its 1971 booklet, *Asbestos, the Need for and Feasibility of Air Pollution Controls*, the NAS Asbestos Panel, which consisted of seven of the nation's experts on asbestos and health, stated:

There is no evidence that persons in the general population — without occupational, household, or neighborhood exposures — have any increased risk of neoplasm, even though there may be ferruginous bodies or fibers in their lungs.

According to the Asbestos Information Association, the report of the IARC Advisory Committee represents the consensus of present world medical opinion on all aspects of the asbestos-health problem.

ST0513614



Asbestos is automatically packaged at the mill and shipped in impermeable bags to prevent dust exposure. (Photos: courtesy Asbestos Information Association/North America.)



In the manufacturing plant, bags of asbestos are opened and fiber handled in ways preventing exposure.

smoking. Studies conducted of as many as 17,500 asbestos insulaworkers show that those who do not smoke have a much greater risk of contracting lung cancer than non-smokers in the general public — that those asbestos industry men who do not now smoke cigarettes and who have never smoked regularly, have no greater risk of lung cancer than the average person in the street who does not smoke.

mesothelioma

This disease is an extremely rare cancer of the lining of the chest (pleural) or the abdominal cavity (peritoneum). It is found more frequently among those with occupational asbestos exposure than among the general population. It also has been found among people who, in the past, lived in close proximity to uncontrolled crocidolite asbestos mines, and even, on rare occasions, in the households of employees who worked in crocidolite asbestos factories or mines and presumably brought substantial quantities of this particular type of asbestos fiber into their homes on their work clothes. This has not been found to be the case with individuals exposed only to chrysotile asbestos, which accounts for 97 per cent of asbestos fiber used in the United States today.

Because the latent period for

mesothelioma ranges from 30 to 45 years, it is impossible at this late date to determine precisely the exposure levels experienced by these "neighborhood" and "household" cases. However, they were probably quite high by today's standards. In any case, as technology was developed for the control of asbestos dust levels, both in the plant and out, these potentially hazardous conditions have been greatly reduced, if not eliminated.

A relatively small number of cases have also been reported among employees in shipyards and on construction projects who, while not working directly with asbestos, were exposed to heavy concentrations of air-borne fiber by working in close proximity to those who did. Exposures of this type have been reduced by strictly enforced industrial safety devices and procedures.

Asbestos and the General Public

The Asbestos Information Association/North America states:

There is no evidence — either from experience or from scientific research — that anyone in the general public has ever contracted any asbestos-related disease from exposure to minute amounts of asbestos dust being found in community

air, which are many times lower than those levels that have been demonstrated to result in no excess of disease in occupationally exposed populations.

That conclusion is supported by both the Asbestos Panel of the National Academy of Sciences' Committee on Biologic Effects of Atmospheric Pollutants, and the 33-member Advisory Committee on Asbestos Cancers of the International Agency for Research on Cancer, a division of the World Health Organization.

In its 1971 booklet, *Asbestos, the Need for and Feasibility of Air Pollution Controls*, the NAS Asbestos Panel, which consisted of seven of the nation's experts on asbestos and health, stated:

There is no evidence that persons in the general population — without occupational, household, or neighborhood exposures — have any increased risk of neoplasm, even though there may be ferruginous bodies or fibers in their lungs.

According to the Asbestos Information Association, the report of the IARC Advisory Committee represents the consensus of present world medical opinion on all aspects of the asbestos-health problem.

ST0513615