



ASBESTOS INFORMATION ASSOCIATION

1745 Jefferson Davis Highway, Crystal Square 4, Suite 509
Arlington, Virginia 22202 • (703) 979-1150

May 20, 1982

Memorandum For:

MEMBERS

Subject:

Forwarding of Items of Interest

As you know, the World Symposium on Asbestos (WSA) will be held in Montreal, Canada, during the period May 24-27, 1982. The Executive Committee agreed at its last meeting that the Association should issue a news release concurrently with the beginning of the WSA. The news release would emphasize the work of AIA/NA and speak to the regulatory status of asbestos in the United States. This action will provide all WSA attendees with a clear statement from the asbestos industry in the United States. A copy of the statement by AIA/NA President Jim Reis scheduled for release on May 24 is enclosed for information.

A new pamphlet entitled, "Asbestos: A Natural Substance for Modern Needs," has been prepared by staff and is available in quantity supply. You will note that the pamphlet is prominently mentioned in the news release. The pamphlet provides a concise overview of significant matters on asbestos, asbestos and health, and current asbestos use in products. It is suggested as a helpful reference for members to, among other uses, pass along to state legislators when appropriate, provide to news media representatives, assist in responding to general inquiries, and possibly distribute to customers. The cost of the pamphlet is \$.75 each. Two copies of the new pamphlet plus an order form for AIA/NA educational-informational materials are enclosed.

The lead article of AIA/NA's monthly newsletter, April issue, covered Health and Human Services Secretary Richard Schweiker's response to the Association's criticism of the 1978 "Estimates Paper." Enclosed are news clips regarding this matter that have appeared this month in Washington newsletters which enjoy wide government, labor and industry circulation.


B. J. Pigg
Executive Director

Enclosures



ASBESTOS INFORMATION ASSOCIATION

1745 Jefferson Davis Highway, Crystal Square 4, Suite 509
Arlington, Virginia 22202 • (703) 979-1150

NOT FOR RELEASE BEFORE:

May 24, 1982
Montreal, Quebec, Canada

FOR FURTHER INFORMATION CONTACT:

B. J. Pigg, Executive Director

(The following statement was issued today by the Asbestos Information Association/North America (AIA/NA). AIA/NA is an incorporated, non-profit organization whose member firms in the United States and Canada are involved in the mining and milling of asbestos ore, the sale of asbestos fiber, and the manufacture or processing of asbestos-containing products.)

INTRODUCTION

The Asbestos Information Association/North America (AIA/NA) applauds the initiative of the Government of Canada, the Government of Quebec and the Commission of the European Communities for sponsoring and organizing a World Symposium on Asbestos (WSA). AIA/NA has cooperated fully from the outset with the WSA Secretariat by publicizing the event in the United States, and with the Program Committee by suggesting appropriate U.S. participants.

Speaking on behalf of AIA/NA, President James F. Reis said: "The WSA provides an excellent forum for an exhaustive review of the asbestos situation by government, the scientific community, the labor movement, and the asbestos industry. I am hopeful that the results of this occasion will go a long way toward resolving some of the issues that confront the industry as well as providing an answer to the ultimate aim of the WSA: To provide as full and objective an answer as possible for those who are wondering whether society can 'live' with asbestos or whether it need do without it."

Reis said it was appropriate that, on the eve of the WSA, a statement be made on the work of AIA/NA and the regulatory status of asbestos in the United States.

WORK OF AIA/NA

First, Reis emphasized that "AIA/NA has cooperated throughout its eleven-year history with federal, state and provincial regulatory agencies by providing information, commenting on proposals, and meeting with government officials to encourage and foster reasoned and effective regulation of asbestos." He went on to say that AIA/NA takes very seriously its middle name, "Information," and that this is the organization's primary role. "We provide information to the industry, individuals, labor unions, and to all branches of the government," Reis said.

Reis noted that among AIA/NA's informational activities is a monthly newsletter, News & Notes, which enjoys international circulation. He pointed out that tens of thousands of AIA/NA's educational-informational materials have been distributed to interested parties: "Included in these materials are posters and booklets advocating and describing recommended work practices for asbestos-cement pipe and sheet, asbestos friction products, asbestos flooring, asbestos paper, and other asbestos-containing products. Each booklet explains recommended methods for controlling asbestos fiber release, thereby providing for safer product use. The most requested publication in AIA/NA's library is its employee information pamphlet which gives practical advice on working with asbestos and asbestos-containing products."

As the latest illustration of AIA/NA's commitment to providing timely information, Reis referred to a pamphlet entitled, "Asbestos: A Natural Substance for Modern Needs," which was published May 20. He said that "the purpose of the pamphlet is to provide the reader with an overview of significant matters relating to asbestos and asbestos-containing products. It includes information on asbestos and health, federal regulation of asbestos in the United States, and current uses of asbestos."

Since the asbestos-related health problems occurring today are problems that had their origin many years ago, the pamphlet will provide the reader with a better understanding of how asbestos and today's asbestos-containing products can continue to be used safely. Copies of the new pamphlet along with a sampling of other educational-informational materials will be available for review by WSA attendees. In addition, order forms to assist in obtaining quantity supplies of these materials will be provided."

Another of the major activities of AIA/NA over the past year has been its active participation in proceedings before the Ontario Royal Commission on Matters of Health and Safety Arising From the Use of Asbestos. This Commission has heard testimony from more than 30 of the world's foremost medical and scientific experts on asbestos. Reis said that, "although there were differences of opinion among the witnesses, and many issues were still unresolved, there appears to be a consensus in several important areas as follows:

All human health effects of asbestos are dose-related, and present-day health effects are attributable to high, often uncontrolled, exposures of the past.

Asbestos occupational exposures today are more than an order of magnitude lower than the historical exposures which led to the ill effects now being experienced.

Although the health effects of the lower exposure levels found in the workplace today cannot be determined definitively, the best scientific evidence indicates the risks are minimal.

Often-expressed fears about asbestos risks to the general population have been widely exaggerated; no public health risk exists in continued asbestos use.

These areas of consensus should provide a strong basis for establishing a rational policy on asbestos which is acceptable to society."

REGULATORY STATUS OF ASBESTOS IN U.S.

As to the situation in the United States, Reis stressed that a number of outstanding regulatory initiatives which would have major impact on the asbestos industry and on the public which benefits from its products remain unresolved. These initiatives were taken by the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and Consumer Product Safety Commission (CPSC) during the past Administrations. He said AIA/NA communicated its concerns to the new Administration's Task Force on Regulatory Relief headed by Vice President Bush. AIA/NA urged a coordinated resolution of these pending regulatory initiatives, and made specific, affirmative proposals in this regard to the respective agencies. Reis went on to say that he was "encouraged by recent reports which indicate a new task force to coordinate federal activity concerning asbestos will be formed." He said further that he was hopeful more on the task force would be disclosed in EPA Administrator Anne Gorsuch's presentation during the WSA.

Reis said he "could not emphasize too strongly the economic uncertainties that have been created for the asbestos industry in the United States as a result of past government-announced plans to issue new regulations without ever promulgating any of these regulations. This absence of follow-through has resulted in an inordinate delay in the rule-making process, and the opportunity for full participation in developing new, sound regulations on asbestos." AIA/NA's position on this issue is clear: "We stand ready, willing and able to assist the government in achieving a regulatory environment that both protects health and encourages the safe and beneficial use of asbestos and asbestos-containing products."

"Recent statements by the U.S. Health and Human Services Secretary Richard S. Schweiker regarding the much publicized 1978 document entitled, 'Estimates of the Fraction of Cancers in the United States Related to Occupational Factors,' are of particular significance," Reis stated. The "Estimates Paper," prepared by nine scientists in the U.S. National Cancer Institute, the U.S. National Institute of Environmental Health Sciences and the U.S. National Institute for Occupational Safety and Health, "has been widely used by government officials and others to claim that 17 percent of all cancer deaths in the United States will be associated with previous exposure to asbestos, despite the fact that it was never peer reviewed or published in the scientific literature," he said.

Reis pointed out that, notwithstanding the fact the claims made by the "Estimates Paper" were repeatedly discredited by the international scientific community and referred to as "scientific nonsense," it continued to receive attention and was referred to by the news media and others as the official U.S. government position on occupation and cancer. "AIA/NA, therefore, submitted a detailed critique of the paper to Secretary Schweiker and called for its official rejection by the U.S. government," according to Reis. By letter of April 29, 1982 Secretary Schweiker acknowledged to AIA/NA that "the percent of cancer deaths attributable to asbestos exposure as used in the 'Estimates Paper' was too high." Schweiker added that "estimates for the contribution of asbestos to cancer mortality range from one to three percent." These comments by Secretary Schweiker "clearly show that it is a misuse of the 'Estimates Paper' for anyone to cite it as the U.S. government position on occupation and cancer," Reis emphasized.

CONCLUSION

President Reis said in closing: "The interest in asbestos-related matters is international in scope as demonstrated by this large gathering

from countries around the world. We must rededicate our efforts to ensure the safe and responsible use of asbestos so that the benefits derived from its use in hundreds of products and industrial applications may continue to be enjoyed by society."

ASBESTOS: A NATURAL SUBSTANCE FOR MODERN NEEDS

CLUTCH FACINGS	PACKINGS	VINYL FLOORING
PIPE WRAP		SHINGLES
FELTS		ROOFING PRODUCTS
A/C PIPE		OIL SEALS
SHINGLES		GASKETS
BRAKE LININGS		FLOOR TILE
A/C SHEETS		FRICTION MATERIALS
TEXTILES		

ASBESTOS INFORMATION ASSOCIATION/NORTH AMERICA

CONTENTS

Introduction.....	1
Section I—Asbestos and Health	2
Section II—Control of Asbestos in the Workplace and the Environment	6
Section III—Asbestos Use Today.....	8
Section IV—Conclusion	10
References.....	11

May 20, 1982

Introduction

The purpose of this pamphlet is to provide the reader with an overview of significant matters relating to asbestos and asbestos-containing products. It includes information on asbestos and health, federal regulation of asbestos, and current uses of asbestos. The asbestos related health problems which are occurring today are problems that had their origin many years ago. This pamphlet will provide the reader with a better understanding as to why asbestos and today's asbestos-containing products can continue to be used safely.

Asbestos is a generic term used to describe a number of fibrous minerals found in various concentrations across the earth's surface. As defined by federal regulatory agencies, the term encompasses six minerals: chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite. Of these, chrysotile is the most widely used, accounting for over 90 percent of world consumption.

Because minute amounts of asbestos are commonly found in the natural environment of many areas, asbestos is sometimes referred to as being ubiquitous, or present everywhere. Commercially viable deposits are far less common. The largest deposits are found in Canada, especially in the Province of Quebec, the U.S.S.R., and South Africa. In the United States, asbestos is mined in California and Vermont.

Asbestos has found broad use in many essential applications because of its high tensile strength, superior flexibility and durability, favorable friction properties, and resistance to fire, heat and corrosion. This unique combination of properties remains unmatched by any other natural or man-made fiber. Indeed, in the recent past asbestos was very favorably perceived by the public and hailed as a "miracle" fiber.

It is now known that asbestos is one of a growing number of substances which can, with excessive exposure, cause disease in humans. The current asbestos-related health problems are an unfortunate legacy of the past and have led to much fear, uncertainty, and misinformation concerning the use of asbestos today. Yet the high visibility of these problems should not obscure the very different working conditions which now exist in the industry.

Improved handling techniques and the selective development or elimination of product lines now allow asbestos and asbestos-containing products to be used at exposure levels many

times below those which are associated with hazards to health. Properly handled, asbestos is an economically valuable industrial raw material which can continue to be used in many beneficial applications.

The issues related to the use of asbestos cannot be fairly or adequately addressed on the basis of emotional reactions. What is needed is a balanced, realistic view which accurately reflects the use of asbestos today.

I. Asbestos and Health

The public's concern about possible adverse health effects from asbestos exposure is understandable. There is no doubt that very high exposures to asbestos in workplaces many years ago have led to serious health consequences. Although we still do not have a complete understanding of how asbestos causes disease, there are areas of general agreement concerning its health effects.

Microscopic fibers of asbestos, invisible to the human eye, can enter the body through two routes, ingestion or inhalation.

Asbestos fibers are most commonly ingested, or swallowed, with drinking water, which in many areas naturally contains hundreds of thousands of fibers per liter. Studies, both in the United States and abroad, strongly support the conclusion that ingestion of asbestos is not considered to be a significant health risk.

The National Academy of Sciences Safe Drinking Water Committee reported in 1977: "The available data with respect to asbestos orally ingested through drinking water do not suggest an immediate hazard to public health."¹

The International Agency for Research on Cancer, after surveying and evaluating all the available published literature on asbestos also concluded: "At the present time, there is no evidence that exposure of the general population to past levels of asbestos dust in the ambient air or in beverages, drinking-water, food, or pharmaceutical preparations increases the risk of cancer."²

The Advisory Committee on Asbestos of the United Kingdom Health and Safety Commission completed in 1979 an exhaustive three-year study of the health risks from asbestos. In its final report, the Advisory Committee states: "there is . . . no evidence of the existence of risk in animals associated with the ingestion of asbestos."³

The U.S. National Institute of Environmental Health Sciences is in the process of completing a series of animal studies on the biological effects of ingested asbestos. In these studies, groups of rats and hamsters were fed a diet which included a high percentage of asbestos. Although a final report has not yet been issued, a recent status report states: "The contractor has reported that a preliminary analysis of the hamster data indicates that no carcinogenic effect was observed."⁴ A similar conclusion is expected from the rat studies: "Although data has not yet been statistically analyzed, it appears that longevity was not affected by exposure to the various types of fibers, although the known carcinogen (DMH) did significantly shorten lifespan."⁵ (The reference here to the carcinogen, DMH or dimethylhydrazine, refers to a control aspect of the study. A group of rats and hamsters were fed DMH so that a comparison could be made between the effects of ingested asbestos and an acknowledged carcinogen.)

Heavy inhalation of asbestos fibers, on the other hand, has been linked with serious health consequences notably asbestosis, lung cancer, and mesothelioma.

Asbestosis is the term associated with scarring of the lungs resulting from inhalation of asbestos dust. It results in a reduction of lung capacity and elasticity. Abnormal shortness of breath is the principal symptom of advanced asbestosis.

Asbestosis is in the category of lung diseases called pneumoconioses, which also includes silicosis (caused by exposure to silica dust) and coal workers' pneumoconiosis (caused by exposure to coal dust). However, unlike some of the other pneumoconioses, asbestosis does not predispose one to the development of pulmonary tuberculosis, nor does evidence suggest that it is causally related to emphysema or chronic bronchitis.⁶

Bronchogenic carcinoma or lung cancer has also been associated with asbestos dust exposures, although as with asbestosis, the disease is primarily related to the very high workplace exposures of the past. In addition, cigarette smoking plays a significant role in this context. For example, a major study examining the relationship of cigarette smoking and disease among asbestos insulation workers stated: "It seems clear, then, that lung cancer is uncommon among asbestos insulation workers who have no history of cigarette smoking, and that if the risk is increased such an increase is not great."⁷ There is a study which indicates an increased risk of lung cancer in heavily exposed workers who were nonsmokers. It has been estimated that

the risk of lung cancer is increased by between four and five times among such workers as opposed to an increase of ten times for cigarette smokers who do not work with asbestos.⁸ However, the greatest risks continue to be associated with exposures to both asbestos dust and cigarette smoking. Where both factors are present, the risk of lung cancer has been estimated to increase by as much as fifty-five times.⁹

Asbestos has also been linked to mesothelioma, a rare cancer of the linings of the chest (pleura) or abdomen (peritoneum). The mechanism of this disease in association with the inhalation of asbestos fibers remains a medical mystery. Until recently, asbestos was the only substance associated with the development of this disease, but it could not account for all reported cases. Now, additional substances, including ethylene dibromide, ethylene oxide, and cytembena, have been linked to this malignancy.^{10,11,12} Crystalline fibers of erionite, a mineral of the zeolite family, are thought to be responsible for high rates of mesothelioma in some villages of central Turkey.¹³

It should be kept in mind that the diseases associated with asbestos exposure are not acute but chronic. This means that they develop with exposure over time, or that there is a latency period before any symptoms are manifested. A latency period of 30 years or longer is not unusual.

The latency period is one reason why asbestos is presently so much in the public eye. Again, it should be stressed that the diseases of today are rooted in the heavy workplace exposures of the past.

Much of the evidence available on the effects of low dose exposure to asbestos indicates that the risk to workers today is very small. In a comprehensive study of Quebec chrysotile mining and milling workers, for example, the authors note:¹⁴

If the only subjects studied had been the 1904 men with at least 20 years' employment in the lower dust concentrations, averaging 6.6 million particles per cubic foot (or about 20 fibres/cc) [i.e., ten times higher than the current OSHA standard], *excess mortality would not have been considered statistically significant, except for pneumoconiosis.*

Moreover, concluded the investigators, for the lower asbestos concentrations prevalent in modern workplaces, "the order of risk may now approximate to less than 1 cigarette a day."

A recent study of asbestos-cement workers in the United States similarly finds low level asbestos exposure risks are very

small, if not non-existent. The study reports on the mortality experience of a cohort of 5,645 workers in two asbestos-cement factories in Louisiana with follow-up beginning twenty years after first exposure. The authors concluded:¹⁵

In this study, whereas excess risk of respiratory cancer was detected in workers with moderate and heavy exposure, the categories of lowest exposure to asbestos dust [which were still above current exposure levels] did not exhibit excess risks of respiratory malignancy. Such findings are not necessarily incompatible with a linear response curve at low doses because of the relative insensitivity of currently used epidemiologic methods in detecting slight increases in risks when compared to background. They do indicate, however, that any excess risks at low degrees of exposure are small.

Complete, definitive evidence on the absence of any risk to workers under today's low level asbestos conditions must await follow-up studies of more recent workers because of the long latency period that normally occurs between exposure and disease. Nonetheless, the absence of disease in cohorts of workers such as the two described above—who experienced asbestos exposures well above today's prevalent levels—provides us with confidence that significant risks no longer exist for workers in the asbestos industry.

In light of the medical evidence indicating an absence of any significant risk from working with asbestos in the present occupational setting, it can be concluded that for the general public, asbestos risks are minimal, if they exist at all. Asbestos concentrations to which consumers might be exposed are at least several orders of magnitude (that is, thousands or tens of thousands of times) lower than those of today's asbestos workers. On this point, the Advisory Committee on Asbestos of the United Kingdom Health and Safety Commission concluded: "there is no quantitative evidence of a risk to the general public from exposure to asbestos dust."¹⁶

Among the evidence supporting the above conclusion is a recent study finding no adverse health effects on Paterson, New Jersey, residents living near a factory using amosite asbestos.¹⁷ Mortality statistics of the exposed community when compared with a control community without exposure were virtually identical, even though the past asbestos exposures in the neighborhood of the factory were likely to be much greater than those of the average consumer. The reported deaths from lung cancer and

colon-rectum cancer were actually higher in the control community.

II. Control of Asbestos in the Workplace and the Environment

Since the early 1970's, asbestos has been extensively regulated by federal agencies. Workplace exposures, historically the area of greatest concern, are regulated primarily by the Occupational Safety and Health Administration (OSHA). OSHA regulations apply to all workplaces except mines, which are governed by very similar standards of the Mine Safety and Health Administration (MSHA). On the other hand, the Environmental Protection Agency (EPA) regulates the release of asbestos fibers into the ambient air and water. Industry also has been working for many years to develop new procedures and products to minimize the release of asbestos fibers and to protect its workers.

Asbestos was among the first substances to be regulated by OSHA after the agency was established within the Department of Labor in April 1971. A standard for occupational exposure to asbestos was included in the initial promulgation of OSHA standards published on May 29, 1971. The standard established a permissible exposure limit of 12 fibers, greater than 5 microns in length, per cubic centimeter of air. The permissible exposure limit was subsequently lowered twice, first to 5 fibers per cubic centimeter of air on July 1, 1972, then to 2 fibers per cubic centimeter on July 1, 1976, which is the current standard.¹⁸

The OSHA standard also regulates the use of personal protective equipment, such as respirators; requires monitoring of workplaces for asbestos levels and annual medical examinations for employees; provides for caution signs and labels, and procedures for asbestos waste disposal; and specifies what records an employer must maintain.

The regulations of MSHA also established a 2 fibers per cubic centimeter exposure limit for mines and provide for methods of compliance.¹⁹

As OSHA is concerned with establishing standards for workplaces, EPA's concerns reside primarily in controlling emissions into the ambient air and water. The EPA has promulgated asbestos regulations under both the Federal Water Pollution Control Act and the Clean Air Act.

Regulations issued under the Federal Water Pollution Control Act established limits on the amount of total suspended solids, chemical oxygen demand, and the level of pH in wastewater that may be discharged to water. For the purposes of these regulations, the asbestos manufacturing industry is divided into ten subcategories, each of which is responsible for maintaining plant discharges within the permissible limits.²⁰

The EPA has also issued regulations under section 112 of the Clean Air Act which apply to a broad range of asbestos-related activities from milling to waste disposal.²¹ These regulations establish a standard of no visible emissions to the outside air from asbestos milling or manufacturing operations.

Other concerns addressed in the Clean Air Act rules are procedures to govern demolition and renovation operations. These procedures require that the EPA be notified whenever such operations will involve more than 80 meters (in length) of asbestos covered pipe or 15 square meters of friable asbestos material. All demolition and renovation work must employ dust emission control procedures, such as the wetting down of surfaces and materials which are to be worked. If wetting is not practical, local exhaust and ventilation systems may be used, provided that emissions from the system meet the "no visible emission" standard.

Asbestos-containing wastes must similarly be handled so as to prevent emissions of dust and be disposed of in a properly operated disposal site. Waste disposal sites that accept asbestos wastes must not emit visible emissions and may require warning signs and fences erected around the property. Wastes at the site must be covered with a specified thickness of nonasbestos material or with a resinous dust suppression agent.

Apart from occupationally-related settings, most efforts of government and industry have focused on controlling asbestos uses and products which may release excessive fibers into the environment. For example, the Consumer Product Safety Commission has banned consumer patching compounds used to join or repair interior walls and ceilings, and artificial emberizing materials used in fireplaces to simulate live embers and ash.²² Similarly, EPA's regulation bans the use of friable sprayed insulation having more than one percent asbestos. As will be discussed in the following section, industry is continually working to develop new products and procedures to minimize the possibility of fiber release. Through the joint efforts of government,

industry, and an informed public, asbestos can continue to be a useful raw material for modern needs.

III. Asbestos Use Today

Because of its many favorable characteristics, asbestos has often been cited as having thousands of practical applications. Today, with an awareness of the potential health hazards involved, certain of these applications have been phased out as industry concentrates its efforts on developing safer products. Reflecting this development is the assignment of asbestos-containing products into one of three categories according to their potential for fiber release: friable, locked-in, or encapsulated.

The term "friable" refers to products that are brittle and easily crumbled by hand pressure alone. Included in this category would be many kinds of sprayed-on insulations, low density thermal insulations, untreated textiles, and unsaturated papers and felts. Because of their high potential for release of fibers into the air, friable products have been virtually eliminated from general use through the efforts of both government and industry.

Locked-in products are those in which asbestos fibers are held fast by binders and are not released during routine handling and use. Asbestos can be "locked-in" by a variety of binders, although the most common are cement and resins or plastic binders. Products in this category include asbestos cement pipe, asbestos cement sheet and shingles, and friction materials.

Asbestos fiber, locked-in by rigid plastic binders, is an ideal friction material because of its heat resisting and reinforcing properties. It has long been an invaluable component in brake linings and clutch facings.

Combining asbestos with cement produces a very cost-effective construction material. The locked-in asbestos in asbestos cement is structurally strong, corrosion resistant, and practically maintenance-free. Asbestos cement shingles and siding are inexpensive, high performance, low maintenance building materials for a wide variety of climates and living conditions. Asbestos cement pipe for water and sewage lines has given the public incomparable service and convenience. It is structurally strong, corrosion resistant and one of the most economical pipe products available.

Good work practices, such as the use of special tools and equipment, are required during fabrication and installation of locked-in products. For example, because of the potential for fiber release, asbestos cement sheet or pipe should not be cut or drilled

with power tools unless such tools are properly fitted with a vacuum hose to remove the dust created by such activities. The use of hand tools is recommended because they create larger, heavier particles which do not become airborne. Once a locked-in product is in place, however, the fibers are so firmly bound in that there is little chance of their escaping into the environment. Work practice guides for asbestos cement pipe and sheet and other products have been developed by the industry and are available from the manufacturers or the Asbestos Information Association/North America.

Encapsulated products are those in which the asbestos fiber is completely enshrouded by asphalt, latex, rubber or some other resilient material. Some common examples of encapsulated asbestos products are roof coatings, flooring products, mechanical packings, and oil seals and gaskets.

Asphalt and asbestos make an excellent combination. The high surface area of asbestos thickens the asphalt so it does not flow when exposed to high temperatures. The fibrous nature of asbestos prevents the asphalt from cracking as it dries and shrinks, and the use of asbestos in asphalt is cost effective.

In roofing felt, asphalt encapsulated asbestos is less susceptible to shrinkage. The high surface area of asbestos holds the asphalt securely, and there are no problems with roof rot. In all, asbestos provides a low cost, dependable roof with a long, useful life.

Pipe wrap containing asbestos is durable, economical, and resistant to soil chemicals. As such, it continues to play an important role in protecting the nation's underground network of steel pipelines.

In gaskets, strong and resilient latex-bound asbestos provides a seal which requires less bolt pressure. These gaskets maintain their size and integrity under high stresses, temperatures, and chemical attacks. The gasketing material can be infused with a special parting agent so that when the gasket is removed, there is no need for excessive grinding or scraping.

The backing of some vinyl sheet flooring contains asbestos encapsulated by a latex binder. This backing is then covered with vinyl and a wear layer. These floors are durable, comfortable, and require little maintenance. The same can be said of vinyl asbestos floor tile. The asbestos helps tile floors withstand the constant traffic and abuse found in many offices, light duty warehouses, and public buildings.

houses, and public buildings.

Asbestos, because of the special qualities it possesses, will continue to be in strong demand. Quite simply, there are few materials which can match it for effectiveness and economy in a wide variety of uses. With the use of proper controls and work practices, it can be used safely.

V. Conclusion

Asbestos is a naturally occurring mineral fiber with many valuable properties which have made it very useful in a wide variety of applications. However, it is recognized that because of the health risks involved, asbestos must be properly handled. The government has developed extensive asbestos regulations which must be followed, and industry has worked to develop procedures and products which minimize the potential for fiber release. Within these parameters, asbestos is an economically valuable industrial raw material which can be used safely for many beneficial purposes. If you would like additional copies of this pamphlet, copies of work practices guides, or more information on asbestos, please contact:

Asbestos Information Association/North America
1745 Jefferson Davis Highway
Suite 509
Arlington, VA 22202

References

1. Safe Drinking Water Committee, National Academy of Sciences, *Full Report, Drinking Water and Health* 191 (1977).
2. International Agency for Research on Cancer, *Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Man*, Vol. 2, p. 36 (1973).
3. Health and Safety Commission, *Asbestos, Final Report of the Advisory Committee*, Vol. 1, p. 60 (1979).
4. National Toxicology Program, U.S. Department of Health and Human Services, *Biological Effects of Ingested Asbestos*, Status Report January 22, 1981.
5. *Id.*
6. Parkes, W.R., "Asbestos Related Disorders," 67 *Brit. J. Dis. Chest* 261, 284 (1973).
7. Hammond, E.C. and I.J. Selikoff, "Relation of Cigarette Smoking to Risk of Death of Asbestos Associated Disease Among Insulation Workers in the United States," in I.A.R.C., *Biological Effects of Asbestos* 312, 315 (1972).
8. Hammond, E.C., I.J. Selikoff and H. Seidman, "Asbestos Exposure, Cigarette Smoking and Death Rates," 330 *Annals N.Y. Acad. Sci.* 473 (1979).
9. Selikoff, I.J., E.C. Hammond and J. Churg, "Asbestos Exposure, Smoking and Neoplasia," 204 *J.A.M.A.* 106 (1968). See also reference 8 above.
10. National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, *Current Intelligence Bulletin 37, Ethylene Dibromide* (1981).
11. National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, *Current Intelligence Bulletin 35, Ethylene Oxide* (1981).
12. National Toxicology Program, U.S. Department of Health and Human Services, *Carcinogenesis Bioassay of Cytembena*, (1981).
13. Baris, Y.I., et al., "Malignant Mesothelioma and Radiological Chest Abnormalities in Two Villages in Central Turkey," 1981 *Lancet* 984 (1981).

14. McDonald, J.C., et al., "Dust Exposure and Mortality in Chrysotile Mining, 1910-75," 37 *Brit. J. Ind. Med.* 11 (1980).
15. Weill, H., J. Hughes and C. Waggenspack, "Influence of Dose and Fiber Type on Malignancy Risk in Asbestos Cement Manufacturing," 120 *Am. Rev. Resp. Disease* 345, 353 (1979).
16. Health and Safety Commission, *Asbestos, Final Report of the Advisory Committee*, Vol. 1, p. 89 (1979).
17. Hammond, E.C., et al., "Mortality Experience of Residents in the Neighborhood of an Asbestos Factory," 330 *Annals N.Y. Acad. Sci.* 417 (1979).
18. 29 C.F.R. section 1910.1001.
19. 30 C.F.R. sections 55.5, 56.5, 57.5 and 71.202.
20. 40 C.F.R. section 427.
21. 40 C.F.R. sections 61.20-61.25.
22. 16 C.F.R. sections 1304, 1305.



ASBESTOS INFORMATION ASSOCIATION
1745 Jefferson Davis Highway,
Arlington, Virginia 22202

TO: Asbestos Information Association/North America
1745 Jefferson Davis Highway
Arlington, Virginia 22202 • Phone (703) 979-1150

(Date) _____



Please forward the materials noted below. We understand that we will be billed for costs plus shipping charges.

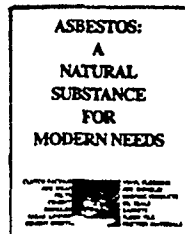
Handbook—"ASBESTOS—Federal & State Regulations" in three-ring binder \$20.00 each.

Quantity _____



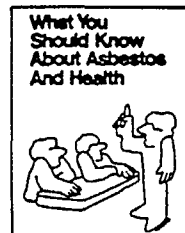
A monthly report of items of interest to the asbestos industry. \$60.00 per year for non-AIA/NA members.

Quantity _____



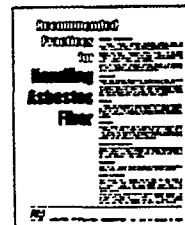
"Asbestos: A Natural Substance for Modern Needs" An overview of asbestos and current use in products. 5½ x 8½ \$1.75 each.

Quantity _____



"What You Should Know About Asbestos and Health." Employee information pamphlet. 5"x7" \$1.35 each.

Quantity _____



"Recommended Practices for Handling Asbestos Fiber." Heavy coated stock poster, 11"x14" printed blue on white for employee information board. \$1.30 each.

Quantity _____

Also available in 3¼" x 9" pamphlet form suitable for mailing in #10 envelope \$1.20 each.

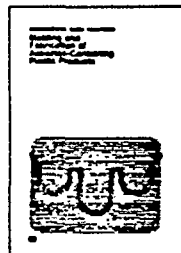
Quantity _____

Booklets—"Friction Materials Work Practices Guide"—\$1.15 each.

Quantity _____

"Recommended Work Procedures for Resilient Floor Coverings" \$1.20 each.

Quantity _____



Booklets—Recommended Work Practices

"Fabrication and Use of Asbestos Paper Products" \$1.50 each.

Quantity _____

"Shop Fabrication of Asbestos Sheet Products" \$1.50 each.

Quantity _____

"Molding and Fabrication of Asbestos Containing Plastic Products" \$1.50 each.

Quantity _____

"Fabrication and Use of Asbestos Friction Materials" \$1.50 each.

Quantity _____

"Use and Handling of Asbestos Textile Products" \$1.50 each.

Quantity _____

"Field Fabrication of Asbestos-Cement Sheet" \$1.25 each.

Quantity _____

"Recommended Work Practices for A/C Pipe" \$1.50 each.

Quantity _____

rev (5/82)

CAPCO JEN 0010986

Booklet— "Working With Asbestos Cement"
40c each

Quantity _____

Pamphlets— "Asbestos in the Atmosphere—A hazard to health?"
20c each

Quantity _____

"Asbestos in Water—A hazard to health?"
20c each

Quantity _____

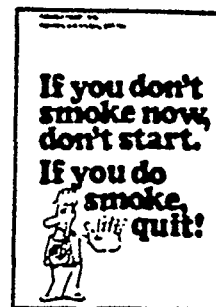
Poster Series— "Asbestos Health Hints for the Workplace." 15"x23" in
various colors. Available at 40c each or complete series
at \$2.40.



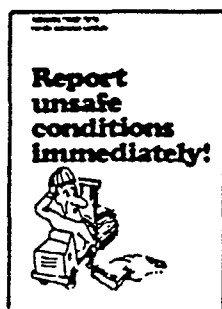
Quantity _____



Quantity _____



Quantity _____



Quantity _____



Quantity _____



Quantity _____

Set of Six Posters _____
(Quantity)

Films—AIA/NA can make available, on a loan basis and at no charge, the edu-
cational/training 16 mm films: "Working With Asbestos" (J-M, 20 min.); "Asbestos, The Indispensable Mineral" (J-M, 20 min.);
"Living With Dust" (3M, 15 min.); and "Asbestos at Work" (AIC-UK, 20 min.).

Slide Presentation—"Asbestos: A Natural Product for Modern Needs"
(35mm - 20 min.)

Special Mailing Instructions:

Company

Address

City State Zip

Signature

SCHWEIKER DISAVOWS CALIFANO'S OCCUPATIONAL CANCER ESTIMATES:

HHS Secretary Richard Schweiker has disavowed the report of his predecessor, Joseph Califano, on the estimates of cancer related to occupational factors. In a letter to the Asbestos Information Association, Schweiker called the estimates too high.

The Califano "Estimates Paper," prepared by a group of HHS scientists and published in 1978, calculated that more than 25 percent of all cancer deaths in the U.S. could be attributed to occupational factors and that 17 percent of current cancer deaths were associated with previous exposure to asbestos. The estimates, presented by Califano to an AFL-CIO Conference on Occupational Health and Safety, were widely publicized and caused counter-reaction by much of industry and a number of scientists.

B.J. Pigg, Executive Director of the Asbestos Information Association, had written to Schweiker to urge that the Estimates paper be formally withdrawn by the Department from the record in OSHA's current review of the genetic cancer policy. It had been previously used by OSHA in development of the cancer policy, although it has never been a formal HHS position.

In his reply of April 29, Schweiker said that "more recent estimates imply that the original estimates of cancer associated with asbestos exposure were too high. Current estimates for over-all workplace-associated cancer mortality vary within a range of five to fifteen percent. Recent estimates for the contribution of asbestos to cancer mortality range from one to three percent."

"In sum," he continued, "the current state of knowledge does not allow us to give a precise estimate; responsible scientists simply do not agree on a single estimate of cancers caused or contributed to by environmental factors, or on the contribution of asbestos in particular."

"Our mutual concern for public health dictates that we all take appropriate action to prevent exposures to hazardous substances. Whatever the exact contribution of occupational factors to cancer, these factors remain a source of concern to this Department. Thus, the central issue is that all of us must do what we can to make the workplace less hazardous, particularly for those who continue to work with materials like asbestos for which society has not yet found a substitute."

"As you know, OSHA has announced its intention to reevaluate and revise the Generic Cancer Standard. This will provide an opportunity to consider the most recent estimates and scientific judgment about occupationally-related cancer."

In his letter, Pigg said that the claims made by the original "Estimates Paper" have been repeatedly discredited by the scientific community. "Indeed," he said, "all but two of its nine co-contributors have expressed doubt as to the Paper's correctness. It nonetheless continues to receive prominent attention and is often referred to as the official government position on occupation and cancer."

"We write to you now because the 'Estimates Paper' has once again been comprehensively criticized in the June issue of the Journal of the National Cancer Institute. An extensive review of the causes of cancer commissioned by the U.S. Congress' Office of Technology Assessment, and written by the eminent British scientists Sir Richard Doll and Richard Peto, concludes the Paper 'should not be regarded as a serious contribution to scientific thought and should not be used or cited as if it were'."

Occupational Health & Safety Letter, May 8, 1982

-OVER-

Carcinogens

SCHWEIKER DISAVOWS 1978 HHS ESTIMATE, CITING UNCERTAINTY OF CURRENT KNOWLEDGE

A 1978 estimate by government scientists that 20 percent of all cancers are attributable to occupational exposures was disavowed by Health and Human Services Secretary Richard S. Schweiker, who wrote in an April 29 letter to an employer group that "responsible scientists simply do not agree on a single estimate of cancer caused or contributed to by environmental factors."

Schweiker's statement was made in response to a November 1981 letter from the Asbestos Information Association asking him to refute claims that the 1978 estimate — reached by scientists at the National Institute for Occupational Safety and Health, the National Cancer Institute, and the National Institute of Environmental Health Sciences — represented the U.S. government's position.

The AIA told Schweiker that his action was "particularly necessary" because the Occupational Safety and Health Administration is reconsidering its cancer policy, which was based in part on the "discredited" 1978 estimate. Although the group asked Schweiker to withdraw the institutes' report from the OSHA record, his letter made no mention of the request.

The NIOSH-NCI-NIEHS estimate received wide publicity after Joseph A. Califano Jr., then secretary of health, education, and welfare, told a September 1978 labor conference that at least 20 percent of the cancer-caused deaths in the U.S. are attributable to occupational exposure to chemicals and that 17 percent of all cancers detected annually in the U.S. are tied to asbestos exposure (Current Report, September 14, 1978, p. 459).

The asbestos employers' group cited a review of cancer causation commissioned by the Office of Technology Assessment, a congressional research arm, and written by British scientists Sir Richard Doll and Richard Peto. The resulting article, published last June in the *Journal of the National Cancer Institute*, stated that the 1978 estimate "should not be regarded as a serious contribution to scientific thought and should not be used or cited as if it were."

The Doll-Peto review has since been submitted to the OSHA cancer policy record by the American Industrial Health Council, an industry group. In addition, the AIA submitted the Schweiker letter into the OSHA record May 6.

Workplace Range: 5 to 15 Percent

In his letter to the AIA, Schweiker stated that current estimates for overall workplace-associated cancer mortality vary within a range of 5 to 15 percent and that recent estimates for the contribution of asbestos to cancer mortality range from 1 to 3 percent.

Calling the 1978 estimates document "an early effort," Schweiker answered the AIA by saying, "Although the estimates ... were used by Secretary Califano and others, it is my understanding that the paper was not intended to be a statement of departmental policy; it represented expert opinion based on research available at that time."

"A great deal of research has been conducted in this area since that early effort, prompted in no small measure by it. Although the paper was never peer reviewed or published in the scientific literature, it has been circulated broadly and

has received intense and valuable scrutiny All the work that has been conducted recognizes the great difficulty in developing estimates because of the many factors associated with cancer and the difficulties in establishing exposure."

He acknowledged that "more recent estimates imply that the original estimates of cancer associated with asbestos exposure were too high." But he concluded, "In sum, the current state of knowledge does not allow us to give a precise estimate: responsible scientists simply do not agree on a single estimate of cancers caused or contributed to by environmental factors, or on the contribution of asbestos in particular."

Citing "our mutual concern for public health," Schweiker maintained that "the central issue is that all of us must do what we can to make the workplace less hazardous, particularly for those who continue to work with materials like asbestos for which society has not yet found a substitute." Whatever the exact contribution of occupational factors to cancer, he said, it remains a source of concern to the department.

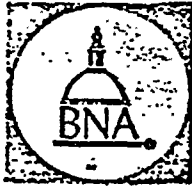
The OSHA rulemaking, he told the AIA, will provide an opportunity to consider the most recent estimates and scientific judgment about occupationally related cancer.

An AIA analysis of the 1978 estimates included with the group's letter and submitted also to OSHA asserted that scientists have found that they "grossly exaggerate the effects of asbestos use on cancer incidence" by a factor of 10 and contended that the institutes' document has been used in the past to support "overzealous regulation of occupational carcinogens."

Cancer Policy Review Will Encompass Percentage Estimates

OSHA's review of its generic cancer rules will provide an opportunity to consider the most recent estimates and scientific judgment about occupationally related cancer, HHS Secretary Richard Schweiker told the Asbestos Information Association in an April 29 letter responding to the group's critique of a 1978 document used as part of the record during OSHA's development of the cancer policy. Prepared by NIOSH, the National Cancer Institute and the National Institute of Environmental Health Sciences, the document estimated that 17 percent of current cancer deaths in the U.S. are due to asbestos exposure.

The association claims that "Estimates of the Fraction of Cancers in the United States Related to Occupational Factors," has been discredited by the scientific community and that the actual occurrence of asbestos-related cancer is much lower. Schweiker noted that some recent mortality estimates for asbestos range from about one to three percent, but that the current state of knowledge cannot give a precise estimate. Current estimates for overall workplace-associated cancer mortality vary within a range of five to 15 percent, Schweiker said.



DER No. 94

daily report for EXECUTIVES

MAY 14, 1982 • FRIDAY

WASHINGTON, D.C.

Today's Summary and Analysis

JOB SAFETY: SCHWEIKER DISAVOWS EARLIER ESTIMATE ON CARCINOGENS

A 1978 estimate by government scientists that 20 percent of all cancers are attributable to occupational exposures was recently disavowed by Health and Human Services Secretary Richard S. Schweiker.

"Responsible scientists simply do not agree on a single estimate of cancer caused or contributed to by environmental factors," he said in a letter to an employer group.

Schweiker's statement was made in response to a November 1981 letter from the Asbestos Information Association asking him to refute claims that the 1978 estimate—reached by scientists at the National Institute for Occupational Safety and Health, the National Cancer Institute, and the National Institute of Environmental Health Sciences—represented the U.S. government's position.

The AIA told Schweiker that his action was "particularly necessary" because the Occupational Safety and Health Administration is reconsidering its cancer policy, which was based in part on the "discredited" 1978 estimate. Although the group asked Schweiker to withdraw the institutes' report from the OSHA record, his letter made no mention of the request.

The NIOSH-NCI-NIEHS estimate received wide publicity after Joseph A. Califano, Jr., then-secretary of health, education, and welfare, told a September 1978 labor conference that at least 20 percent of the cancer-caused deaths in the U.S. are attributable to occupational exposure to chemicals and that 17 percent of all cancers detected annually in the U.S. are tied to asbestos exposure.

The asbestos employers' group cited a review of cancer causation commissioned by the Office of Technology Assessment, a congressional research arm, and written by British scientists Richard Doll and Richard Peto. The resulting article, published last June in the "Journal of the National Cancer Institute," stated that the 1978 estimate "should not be regarded as a serious contribution to scientific thought and should not be used or cited as if it were."

The Doll-Peto review has since been submitted to the OSHA cancer policy record by the American Industrial Health Council, an industry group. In addition, the AIA submitted the Schweiker letter into the OSHA record May 6.

In his letter to the AIA, Schweiker stated that current estimates for overall workplace-associated cancer mortality vary within a range of 5 percent to 15 percent and that recent estimates for the contribution of asbestos to cancer mortality range from 1 to 3 percent.

Calling the 1978 estimates document "an early effort," Schweiker answered the AIA by saying, "Although the estimates . . . were used by Secretary Califano and others, it is my understanding that the paper was not intended to be a statement of departmental policy; it represented expert opinion based on research available at that time."

- OVER -

"A great deal of research has been conducted in this area since that early effort, prompted in no small measure by it. Although the paper was never peer reviewed or published in the scientific literature, it has been circulated broadly and has received intense and valuable scrutiny. All the work that has been conducted recognizes the great difficulty in developing estimates because of the many factors associated with cancer and the difficulties in establishing exposure."

He acknowledged that "more recent estimates imply that the original estimates of cancer associated with asbestos exposure were too high." But he concluded, "In sum, the current state of knowledge does not allow us to give a precise estimate: responsible scientists simply do not agree on a single estimate of cancers caused or contributed to by environmental factors, or on the contribution of asbestos in particular."

Citing "our mutual concern for public health," Schweiker maintained that "the central issue is that all of us must do what we can to make the workplace less hazardous, particularly for those who continue to work with materials like asbestos for which society has not yet found a substitute." Whatever the exact contribution of occupational factors to cancer, he said, it remains a source of concern to the department.

The OSHA rulemaking, he told the AIA, will provide an opportunity to consider the most recent estimates and scientific judgment about occupationally related cancer.

An AIA analysis of the 1978 estimates included with the group's letter and submitted also to OSHA asserted that scientists have found that they "grossly exaggerate the effects of asbestos use on cancer incidence" by a factor of 10 and contended that the institutes' document has been used in the past to support "overzealous regulation of occupational carcinogens."

job SAFETY & HEALTH *report*

• Legislation

• Economics

• Medicine

• Technology

Published: LEONARD A. EISERER

Vol. 12 No. 10

May 18, 1982

Editor: JUDY HABEREK

Page 73

- * Union Group Joins with Environmentalists To Force EPA Disclosure of Pesticide Data Page 74
- * OSHA Announces New Plan Governing Worker Use of Respirators Page 75
- * Administration Backs Off on Mine Safety Changes After Union Threatens 'Strike' Page 76
- * Chemical Industry Halted Data on Benzene-Exposed Workers, Congressman Charges Page 77
- * Government Program Adds 63 New Substances to List of Confirmed Carcinogens Page 77
- * Supreme Court Blocks Asbestos Worker Lawsuits Page 79

SLANTS & TRENDS

THE GOVERNMENT IS NOW TRYING TO DISTANCE ITSELF from estimates made in 1978 that 20% of all U.S. cancers are due to workplace exposures. That estimate came from then Secretary of the Health, Education and Welfare Department, Joseph Califano, who noted that the lion's share of that 20% was due to asbestos exposure. However, in a letter to Bob Pigg, executive director of the Asbestos Information Association, Health and Human Services Secretary Richard Schweiker now claims that "most recent estimates imply that the original estimates of cancer associated with asbestos exposure were too high."

SCHWEIKER SAID THAT THE ESTIMATES ON WHICH CALIFANO BASED HIS CLAIM were never peer reviewed or published in scientific literature. "Current estimates for overall workplace-associated cancer mortality vary within a range of five to fifteen percent," Schweiker told the asbestos industry group. "Recent estimates for the contribution of asbestos to cancer mortality range from one to three percent," he added. The letter from the Cabinet official explained that Califano's estimates were taken from a paper submitted to OSHA by the National Cancer Institute, the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health. "It is my understanding that the paper was not intended to be a statement of departmental policy," Schweiker said.

* * *

SCHWEIKER BACKPEDDLES ON PREVIOUS GOVERNMENT CANCER ESTIMATES

The government is now trying to distance itself from estimates made in 1978 that 20% of all U.S. cancers are due to workplace exposures. That estimate came from then Secretary of the Health, Education and Welfare Department, Joseph Califano, who noted that the lion's share of that 20% was due to asbestos exposure. However, in a letter to Bob Pigg, executive director of the Asbestos Information Association, Health and Human Services Secretary Richard Schweiker now claims that "most recent estimates imply that the original estimates of cancer associated with asbestos exposure were too high."

Schweiker said that the estimates on which Califano based his claim were never peer reviewed or published in scientific literature. "Current estimates for overall workplace-associated cancer mortality vary within a range of five to fifteen percent," Schweiker told the asbestos industry group. "Recent estimates for the contribution of asbestos to cancer mortality range from one to three percent," he added. The letter from the Cabinet official explained that Califano's estimates were taken from a paper submitted to the Occupational Safety and Health Administration by the National Cancer Institute, the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health. "It is my understanding that the paper was not intended to be a statement of departmental policy," Schweiker said in the letter.

May 19, 1982

Toxic Materials News