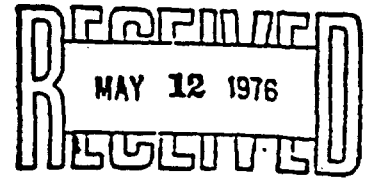




ASBESTOS INFORMATION ASSOCIATION

1620 L Street, N.W., Washington, D.C. 20035 (202) 223-4335



8 April 1976

PLAINTIFF'S
EXHIBIT

G-264

Docket Officer
Docket H-033
U.S. Department of Labor
Room N-3620
200 Constitution Avenue
Washington, D. C. 20210

Dear Sir:

The 120-day extension for comment on the proposed revision to the OSHA asbestos standard; from December 8, 1975 to April 9, 1976, has permitted this Association the time necessary to sponsor an industry-wide review of the proposal and its effect on the asbestos using industry within the United States.

The analysis, comments, and recommendations pertaining to the proposal are respectfully submitted in an industry effort to cooperate fully with the Department of Labor in the development of a reasonable and practicable standard for the protection of workers in thousands of work places, where asbestos products are manufactured or otherwise processed. The task force effort reached out to all sectors of the asbestos industry, excepting construction. The results of this work are contained in the two volumes, appended hereto. The first volume contains summary comments and recommendations prepared by the task force chairman, Guy G. Gabrielson, Jr.; a statement on the scientific-medical issues raised in the proposal prepared by Hans Weill, M.D.; and detailed comments on the proposed standard prepared by the Standards and Technical Committee of the Association under the chairmanship of Harrison B. Rhodes, Ph.D. The second volume is the technological feasibility and economic impact study prepared by the independent consultant firm, Roy F. Weston, Inc.

We shall be pleased to further communicate or meet with any officials within OSHA to discuss the findings and recommendations presented herewith.

We believe a public hearing on this matter will best serve the interests of asbestos workers, the employers within the industry, and the general public. We request a public hearing at the soonest practicable date.

Sincerely yours,

R. H. Mereness
Executive Director
Enclosures: (in quadruplicate)
RHM:v

The following companies and trade associations have endorsed this statement:

A-Best Products Company
Abex Corporation
Aeroquip Corp/Gustin-Bacon Div.
Also Engineering Corp.
Amatex Corp.
American Biltrite Inc., (AMTICO)
American Public Transit Asn.
American Trucking Asn.
Asbestos/Cement Pipe Producers Asn.
Asbestos Textile Institute
Atlas Asbestos Co. (California)
Auto-Friction Corp.
Automotive Parts Rebuilders Asn.
Baltimore Air Coil Co.
Beaver Industries, Inc.
Bird & Son, Inc.
Borg-Warner Corp. (Borg & Beck Div.)
Breiner Co.
Brown Insulating Systems
Brunswick Fabricators, Inc.
Cellulo Co.
Cement Asbestos Products Corp.
Certain-teed Products Corp.
Chemical Sealing Corp.
Congoleum Industries, Inc.
David Fabricators of New York, Inc.
Dresser Industries (Maccobar Div.)
Drilling Specialties Company
Eaton Corporation
Fluid Sealing Asn.
Foseco-Minsep, Inc.
Friction Materials Standards Institute
GAF Corp.
Garlock, Inc.
Gatke Corp.
General Dynamics Corp.
Gibson-Homans Inc.
Grant Wilson, Inc.
Gulf States Asphalt Co.
Gypsum Drywall Contractors Intern'l
Haveg Industries, Inc.
Hollingsworth & Vose Co.
Industrial Safety Equipment Asn.
International Fiber Inc.
Jim Walter Research Corp.
Johns-Manville Corp.
Karnak Chemical Corp.
Kentile Floors, Inc.
Lamons Metal Gasket Co.
Latex Fiber Industries

Lipe-Clutch Products Corp.
Lukens Chemical Corp.
Mannington Mills, Inc.
Maremont Corp.
Markham Corp.
Milchem, Inc.
Molded Materials Company
Monsey Products Co.
Munters Corp.
National Asn. of Cement Board
Fabricators
National Asn. Filter Manufacturers
National Asn. Plastic Distributors
National Electrical Manufacturers
Asn. (Laminating Division)
National Friction Products Corp.
National Gypsum Company
National Insulation Contractors As
Nicolet, Inc.
Norplex, Inc. (U.O.P)
North American Asbestos Corp.
PPG Industries (Chemical Div.)
Palmer Asphalt Co.
Plastics Engineering Co.
Quality Gasket & Mfg. Co.
Raybestos-Manhattan, Inc.
Resilient Floor Covering Institute
Resinoid Corp.
Rostone Engineering Corp.
Royal Industries
Shipbuilders Council of America
Southern Asbestos Co.
Stanhope Products Co.
Supradur Manufacturing Corp.
Synthane-Taylor Corp.
Thiokol Corp.
Tremco, Inc.
Trumbull Asphalt Co.
Union Carbide Corp.
Uvalde Rock Asphalt Co.
Vermont Asbestos Group
Wagner Electric Corp.
Western Slate Co.
Wisconsin Gasket & Mfg. Co.

NEWS & NOTES



ASBESTOS INFORMATION ASSOCIATION 1660 L Street, N.W., Washington, D.C. 20036 (202) 223-4885

3 May 1976

Comments of Proposed OSHA Standard - OSHA has received 180 responses as of April 9 public comment deadline on proposal to revise asbestos standard for permissible workplace exposure level of 2 fibers per cc of air, TWA as of July 1, 1976 to 0.5 f/cc, no date specified. Radical proposed lowering of standard was based on premise that "sufficient medical and scientific evidence has now been accumulated to warrant the designation of asbestos as a human carcinogen", and "there is no assurance of a safe exposure for a substance with known carcinogenic property ... there should be no detectable concentrations." In proposing 1/2 fiber level OSHA noted it must take into consideration technological and economic factors.

AIA/NA industry response, endorsed by 79 individual companies and 15 trade associations, concluded:

" Since there is not credible medical evidence to indicate that the 2 fiber standard will not be adequate to protect the health of employees during a working lifetime, there is no present justification for a lowering of the 2 fiber standard."

The AIA/NA response stated that the industry could provide equipments and programs to achieve a 2 fiber level and urged its retention as reasonable and practicable. A 0.5 fiber level was termed "not feasible." The recommendations of the industry response were supported by an authoritative review of the medical and scientific issues raised in the proposal, an extensive independent study of technological feasibility and economic impact of the proposal and item by item review and recommendations on the proposed regulation.

A sampling of comments from industry among the 180 responses are these:

" We oppose the institution of crippling or impossible work requirements that are not founded on factual, reliable and reputable evidence."

" ...that such irresponsible legislation can only serve to confuse, demoralize and frustrate small business everywhere...a more moderate approach would be beneficial to both labor and industry."

" We feel that OSHA has lost all touch of reality in reference to the impact this proposed regulation would have on our industry..."

measured." At sametime AIA/NA urges public hearing on standard(s) at earliest practicable date.

In discussing matter with AIA/NA representatives, Assistant Secretary of Labor (OSHA) Morton Corn stated he did not question wisdom of concurrent consideration but feasibility and economic impact studies of construction industry had yet to be accomplished. He said schedule for completion of regulation for manufacturing industry should not be further delayed. Date for Asbestos subgroup of OSHA's Construction Committee to discuss problems of construction industry as related to proposed standard have not been announced. Presumably there will be a meeting in May. An inflationary impact study will be required. Meanwhile, it is of interest that present terms of Construction Committee members expire June 30, 1976. Some present members may be reappointed.

As to timing for public hearing for proposed revision to "manufacturing" standard, inflationary impact statement being developed by consultant firm, CONSAD of Pittsburgh, has yet to be submitted to OSHA in final form. Rulemaking process requires statement must be available to public at least 30 days before public hearing. It may be concluded public hearing on proposed revision to standard can not be scheduled before end of June at earliest. Other considerations and pressures on OSHA may delay date much further into year.

Asbestos Ban Not Needed - Appearing on NBC Today Show March 31 Dr. Irving J. Selikoff, Professor of Environmental Medicine, Mount Sinai Hospital, New York City, stated that if asbestos fibers are controlled, they do not have to be banned to protect society. "There are many valuable things in our society that we can't really do without. Once we know what can cause cancer, we can do a great deal to control them without banning them outright," the well known medical spokesman on asbestos stated. (See clipping attached.)

Asbestos in Drinking Water - Environmental Protection Agency called news conference 2pm April 30, 1976 to advise full room of reporters and cameramen that EPA had found measurable amounts of asbestos in some treated and untreated water samples in some cities and not in others pointing out that "it has become increasingly clear that the techniques for identification and measurement of asbestos in water are not as precise or accurate as we would like."

improved technical ability, increase in the quantity and quality of standards and improved cooperation with industry for a realistic program of safety and health in the workplace. Federal health compliance officers are to equal the number of safety compliance personnel now numbering just over 1000. Standards development personnel are to be increased with concentration on industrial medicine and toxicology expertise. A technical data center for toxicological information and program support for standards development and abatement activities is being formed. OSHA has ordered large quantities of monitoring, testing and other equipments for field as well as laboratory use and is searching for better tools in these areas.

At a press briefing on April 19, Corn advised that plans to re-organize OSHA's top staff echelon to provide for better functional and administrative competence would be in effect by August. In further attempts to overcome the image of bureaucratic inefficiency, Corn is paying increased attention to the safety and health problems of small business, encouraging on-site consultative services, adding new emphasis to public participation in rule making and advisory capacity and holding regular news conferences.

Dr. Corn deserves best wishes as OSHA enters its sixth year. It is hoped that his leadership and professional competence will preclude the repetition of arrogance, subjection to pressure and improper evaluation of information which led to the infeasible, impracticable and unnecessary proposal for revising the asbestos standard.

The month of April also marks the fifth anniversary of the incorporation of AIA/NA as a non-profit organization of asbestos using manufacturers, miners and other asbestos interest companies to, among other objectives, "provide industry-wide information on asbestos and health and on industry efforts to eliminate existing hazards and to cooperate with governmental agencies in developing and implementing industry-wide standards for worker protection and for the control of asbestos dust emissions into community air and water." The Association can take pride in its achievements. Its membership growth is indicative of its service and importance to the asbestos industry.

Administration Opposes Mine Safety Transfer - Assistant Secretary of Interior, William L. Fisher told Senate Labor Subcommittee on Mar. 25 transfer of responsibility for mine safety (MESA) from Interior Department to Labor Department is opposed by Administration. Testimony was given at hearings held on bill (S. 1302) introduced last Mar. by Sen. Harrison A. Williams, Jr. (D-NJ), chairman of subcommittee. According to Fisher, Administration objects because bill "fragments the ability of the Executive Branch to effectively administer our nation's energy and mineral resource program by stripping the Secretary of the Interior . . . and transferring that authority to another department." S.1302 states MESA would be independent of OSHA in Labor Department.

Durez to Phase Out Asbestos Fillers

The Durez Division of Hooker Chemicals & Plastics Corp. plans to cease using asbestos fillers in the next nine months.

E. F. Borro, Jr., asbestos manager for molding materials at Tonawanda, N.Y., has informed its customers of this decision. In a letter to them, he said in part:

"Recently there has been much discussion and speculation regarding OSHA regulations on asbestos reinforced thermoset molding materials. We have been concerned for some time that current and proposed regulations will have the effect of rendering it difficult or impossible to continue the use of asbestos bearing products. Because of this we have been working to develop non-asbestos replacements for our asbestos containing materials. We believe that this approach offers both health and economic benefits for your company and customers.

"It is our plan to withdraw from the use of asbestos fillers in all of our products over the next nine months.

"We value the business you have been placing with us, and intend to do everything possible to insure an early transition to non-asbestos materials."

Asbestos health study hampered by wide use

By WARREN E. LEARY

AP Science Writer

WASHINGTON (AP) — Health problems associated with asbestos are hard to detect and combat because the mineral was in such wide use before anyone bothered to see if it was harmful, a medical expert says.

Dr. Irving J. Selikoff said Wednesday that health officials constantly are uncovering previously unknown sources of asbestos pollution. The mineral has for decades had so many uses that people have lost track of what they are, he said.

Asbestos, a fibrous mineral long considered relatively harmless to humans, can cause lung cancer and scarring of lung linings if fine particles are inhaled. Scientists suspect asbestos taken orally may also be a health hazard and have begun extensive studies to find out.

"The problem with asbestos is a sig-

one to solve because of what we didn't know about it before," said Selikoff, head of the Environmental Health Sciences Center at Mount Sinai School of Medicine in New York City.

Work performed by Dr. Selikoff and his team of researchers at Mt. Sinai in recent years confirmed a high number of asbestos-related deaths among workers at the Johns-Manville Products Division plant in Manville, which is one of the world's largest asbestos-handling facilities.

As a result of the medical disclosures and recent federal laws governing worker exposure to asbestos, some of the most sophisticated dust control equipment in use has been installed to protect workers at the Manville plant.

"We are now doing research on it that we should have done in the 30s and 40s when use of asbestos became so popular," he said.

Speaking at a seminar sponsored by

the National Institute of Environmental Health Sciences (NIEHS), which funds his center, Selikoff said more environmental health centers could help solve local pollution problems.

These centers can quickly dispatch teams of experts to identify problems and notify appropriate health agencies, he said.

Selikoff said, for example, that a physician notified his center that two of his patients who did automobile brake lining work had come down with respiratory illnesses.

A team of specialists ran tests in garages and found high concentrations of asbestos dust in brake repair areas.

"We found asbestos in large amounts at least 100 feet from the repair areas," Selikoff said. "It had long been assumed that asbestos used in the brake linings somehow was fused or neutralized by heat from the friction of braking. Apparently, this isn't the case."

COURIER-NEWS
PLAINFIELD, NJ

THE JOURNAL OF COMMERCE

Monday, April 12, 1976

ASBESTOS INDUSTRY CALLS PROPOSED 0.5 FIBER RULE INFEASIBLE; CITES LACK OF MEDICAL JUSTIFICATION

of 0.5 fiber per cubic centimeter of air as a time-weighted average for eight hours, with a ceiling limit of five fibers per cubic centimeter, is not feasible, Asbestos Information Association of North America, representing the nation's primary and secondary asbestos producers, told OSHA in comments submitted April 8. Citing the lack of "credible medical evidence" indicating that a standard of two fibers per cubic centimeter as a TWA with a ceiling limit of 10 fibers will not adequately protect the health of an employee over a working lifetime, industry urged retention of that standard, which had been scheduled to become effective July 1, 1976, under the existing regulations adopted in 1972.

Admitting that exposure to airborne asbestos has been shown to cause fibrosis among industry workers, and is associated with "the appearance of an excess of certain cancers," AIA challenged the concepts upon which OSHA based its stringent proposal, particularly the "theoretical" argument that individual variability in response to carcinogens is great, so such exposure must be reduced to as close to zero as possible. Maintaining it would be more responsible public policy "to postulate a tolerance level for suspected or acknowledged environmental carcinogens, pending definite knowledge of a true level of tolerance... than it is to pay the geometrically escalating cost of attempting to approach zero exposure," particularly in the case of a useful substance like asbestos, industry called on OSHA to calculate "a reasonably safe estimate, based upon the best available evidence, of the levels of the substances which man can tolerate" rather than rely on an "unsubstantiated theory" such as the zero tolerance hypothesis.

Relying on OSHA's willingness in 1972 to promulgate a two fiber standard, AIA emphasized that no substantial new data have been developed since that time from which it can be concluded that such a rule would fail to provide a safe working environment for a lifetime. "If a permanent standard of two fibers/cc TWA was reasonable and appropriate in 1972, and we believe that it was, it remains reasonable and appropriate today," industry asserted. AIA told OSHA a standard of two fibers with a 10 fiber ceiling limit is technically and economically feasible, and could be achieved industrywide in three to five years.

Occupational Safety and Health Administration's proposed workplace asbestos exposure standard

JOE SAFETY & HEALTH REPORT
April 12, 1976

Asbestos fiber ban not needed—Selikoff

If asbestos fibers and other environmental sources of cancer are properly controlled, they do not have to be banned to protect society.

So says Dr. Irving Selikoff, director of cancer research at New York's Mount Sinai Hospital and part of a team studying the cancerous effects of dust from talconite tailings produced by Reserve Mining Co., Silver Bay.

Speaking on the NBC Today Show this morning, Selikoff said, "It was our ignorance of the past that could have done us in."

If cancer-causing agents are discovered and controlled immediately, cancer should not be the threat in the year 2000 that it now is, he said.

Selikoff said the high rate of cancer found in mine workers exposed to asbestos fibers are "due to exposures that were very, very heavy and to which we didn't pay much attention. The people becoming sick now were implanted with the disease 20 years ago."

Families of mine workers and residents living close to the plants also were in danger from exposure to the dust particles and some developed terminal cancer, he said.



DR. IRVING SELIKOFF

"But that won't happen any more," he added.

Recent awareness of hazardous conditions have prompted strict controls, such as confining all contaminated clothing and objects to the plant and pro-

hibiting the emission of asbestos-filled smoke.

Selikoff did not comment on the risks of cancer caused by ingesting water and food that may be contaminated by asbestos fibers.

A team of cancer specialists currently is studying the danger level of asbestos in Duluth tap water.

Selikoff said he was "very optimistic for the future" of cancer prevention and treatment. He called seemingly gloomy discoveries of new cancer-causing agents "a reason for optimism."

"How can it be bad to find the reasons for cancer? If we had not discovered the cause of leukemia, people would go on quietly dying of leukemia. But once we know, we can do something about it," he said.

As researchers discover the causes of cancer, they also can pinpoint high risk groups exposed to those causes, making early detection and treatment possible, he said.

"There are many valuable things in our society that we can't really do without," Selikoff said. "Once we know what can cause cancer, we can do a great deal to control them without banning them outright."

DULUTH HERALD -- MARCH 31, 1976

Medical team tests 960 EB workers for work-related health problems

GROTON — Almost 1,000 workers at the Electric Boat shipyard are being tested for work-related diseases by a team from the Mt. Sinai Hospital, New York. The tests, led by Dr. Irving Selikoff, began Tuesday and will continue until tomorrow.

Each worker is given a chest X-ray and blood and urine tests. The tests take about two hours.

Charles Ballato, workmen's compensation representative for the Pipefitters Union, said about 1,500 shipyard employees showed for the examinations. Because only

960 could be scheduled, only those with 11 or more years employment are being tested. Another series of tests is set for late May.

Sponsored by the Metal Trades Council, which represents workers in 11 craft unions at the yard, the clinic was scheduled after earlier exams showed workers were affected by asbestos dust.

Those employed in trades having a direct contact with asbestos were tested last summer by the same medical team. The material is no longer used in submarine

construction, but workers still come in contact with it in the repair and overhaul of older ships.

Results of individual exams are mailed to each employee and those with a suspected medical problem are being advised to consult their physicians.

Federal court suits in which \$13 million in compensation claims and damages are sought are pending. These were brought by employees, former employees, and in one case the widow of a former employee at the shipyard as a result of last year's tests of workers handling asbestos.

PROVIDENCE JOURNAL
PROVIDENCE, R. I.

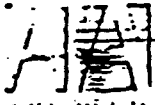
APR 8 1976

EXCERPTS FROM
ASBESTOS INDUSTRY RESPONSE
TO
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
ON
PROPOSED REVISION TO ASBESTOS STANDARD
29 CFR PART 1910

- . LETTER OF TRANSMITTAL
- . SUMMARY AND RECOMMENDATIONS
- . MEDICAL STATEMENT

April 9, 1976

Asbestos Information Association/NA
1835 K Street, N.W.
Washington, D. C. 20006



ASBESTOS INFORMATION ASSOCIATION

1601 L Street, N.W. Washington, D.C. 20036 (202) 223-4335

8 April 1976

Docket Officer
Docket H-033
U.S. Department of Labor
Room N-3620
200 Constitution Avenue
Washington, D. C. 20210

Dear Sir:

The 120-day extension for comment on the proposed revision to the OSHA asbestos standard; from December 8, 1975 to April 9, 1976, has permitted this Association the time necessary to sponsor an industry-wide review of the proposal and its effect on the asbestos using industry within the United States.

The analysis, comments, and recommendations pertaining to the proposal are respectfully submitted in an industry effort to cooperate fully with the Department of Labor in the development of a reasonable and practicable standard for the protection of workers in thousands of work places, where asbestos products are manufactured or otherwise processed. The task force effort reached out to all sectors of the asbestos industry, excepting construction. The results of this work are contained in the two volumes, appended hereto. The first volume contains summary comments and recommendations prepared by the task force chairman, Guy G. Gabrielson, Jr.; a statement on the scientific-medical issues raised in the proposal prepared by Hans Weill, M.D.; and detailed comments on the proposed standard prepared by the Standards and Technical Committee of the Association under the chairmanship of Harrison B. Rhodes, Ph.D. The second volume is the technological feasibility and economic impact study prepared by the independent consultant firm, Roy F. Weston, Inc.

We shall be pleased to further communicate or meet with any officials within OSHA to discuss the findings and recommendations presented herewith.

We believe a public hearing on this matter will best serve the interests of asbestos workers, the employers within the industry, and the general public. We request a public hearing at the soonest practicable date.

Sincerely yours,



R. H. Harreness
Executive Director
Enclosures: (in quadruplicate)
RHH:v

INTRODUCTION

On October 9, 1975 the Occupational Safety and Health Administration of the Department of Labor proposed a revision to its regulation, Occupational Exposure to Asbestos, 29 CFR Part 1910. On December 11, 1975 the Board of Directors of the Asbestos Information Association/North America (hereinafter AIA) voted to sponsor an asbestos industry response to the proposal and created a task force for that purpose, naming the undersigned as Chairman. The Task Force enlisted the support of the membership of AIA/NA and invited non-member companies and trade associations to join in the endeavor. The result of that effort is this statement, made on behalf of the companies and trade associations listed as endorsing firms and organizations.

The statement was prepared in this manner:

1. Dr. Hans Weill, Professor of Medicine, Tulane University School of Medicine and medical consultant to AIA/NA, reviewed recent literature pertaining to asbestos and health, consulted with other qualified experts both in the United States and abroad, and prepared a paper, attached hereto, which summarizes the present state of knowledge concerning asbestos disease, giving particular attention to those papers cited in the OSHA proposed regulation.

2. Roy F. Weston, Inc., an independent consulting engineering firm of West Chester, Pennsylvania, conducted a survey of the United States asbestos industry to ascertain the technological and economic feasibility of the proposed regulation and its economic impact. The Weston report is attached hereto.

the premise that there is a dose-response relationship between exposure to most, if not all, carcinogens and the development of cancer. There is no reason to believe, from the data available to us, that asbestos is an exception to this generality; although, at this time, no one definitely can say at what exposure level asbestos becomes a cancer hazard to man.

Our review of the literature indicates that no credible epidemiological studies have been published which would suggest an excess of malignant tumors among persons exposed to no more than 2 asbestos fibers per cc of air (TWA), using the prescribed membrane filter test method. This is a fact simply because there have yet been identified for study no populations the exposure experience of which consistently has been as low as 2 fibers. Since all populations studied to date have been exposed to substantially higher concentrations of airborne asbestos, we can conclude only that an excess of all types of asbestos disease is associated with levels of exposure significantly higher than the level currently mandated to become effective on July 1, 1976.

Technological Feasibility and Economic Impact Study

For convenience, the Weston study has divided the U.S. asbestos industry into three sectors or segments:

- (a) "primary" - employers who receive, store, handle and process raw asbestos fiber.
- (b) "secondary" - employers who receive, store, handle and process products or materials containing asbestos, and
- (c) "consumer" - employers who use products or materials containing asbestos.

8. Although an airborne concentration of 0.5 fiber/cc TWA can be achieved at some process steps; a uniform, across-the-board standard of 0.5 fiber/cc TWA is technically feasible neither for the primary nor for the secondary sector. (Since BAT dust control has been widely adopted among representative manufacturers in the United States and abroad and therefore can be observed in operation; it can be stated as a fact that an 0.5 fiber/cc TWA level of control is not feasible in the primary or secondary sectors.)

9. For the industry as a whole, under the regulation as proposed, a major portion of the annual cost of compliance will be that for the industrial hygiene and medical program; and that burden will be heaviest in the secondary and consumer segments of the industry.

10. The inherent inaccuracies of the membrane filter test method raise questions concerning its suitability as an enforcement tool.

11. The extent of the environmental monitoring (dust counts) mandated by the proposed regulation will strain the capacity of qualified laboratory facilities and may not be an appropriate use of these limited resources.

12. Implementation of the proposed standard may have a severe economic impact upon the asbestos textile and friction products industries, leading to erosion of profit margins, loss of markets and, perhaps, loss of jobs.

SECONDARY RECOMMENDATIONS

EXPOSURE STANDARD

The asbestos industry recommends the adoption of a permanent exposure standard of 2 fibers per cubic centimeter of air, time-weighted average, with a peak or ceiling limit of 10 fibers per cubic centimeter of air, using the membrane filter test method.

As a feature of its case to justify a reduction of the TWA exposure standard from 2 fibers to one-half fiber, OSHA, in the preamble to its proposed regulation, states that "In animal studies it has been found that individual variability in response to carcinogens is great * * * *" and then adds, "While some level, below which exposure to a carcinogen does not cause cancer, may conceivably exist for any one individual, other individuals in the working population may have cancer induced by doses so low as to be effectively zero." In proceeding, then, to the conclusion that exposure to a carcinogen must be reduced as close to zero as possible, the argument does acknowledge that the concepts cited are "theoretical". And theoretical they are.

Although some health scientists speculate that variations in man's susceptibility to cancer-causing agents may be great and that, therefore, the level of tolerance of some individuals to these substances may be virtually zero (the "one-hit" hypothesis); other health scientists argue that the range of variations in the individual susceptibility of man is small and has been found to be far less significant in the etiology of cancer than the level, duration or

regulatory policy ought to be a reasonably safe estimate, based upon the best available evidence, of the levels of the substances which man can tolerate and not the adoption of an unsubstantiated theory like the "one-hit" or zero tolerance hypothesis.

The record shows that the proceedings which led to the adoption in 1972 of the current asbestos regulation were replete with references to the cancer hazards of asbestos. In fact, the standard then established was chosen in significant measure out of consideration for the risk of mesothelioma. The preamble states, " * * * because it appears that levels of exposure which may be safe with regard to asbestosis are not safe with regard to mesothelioma; * * * the conflict in the medical evidence is resolved in favor of the health of employees. As of July 1, 1976, TWA concentrations of asbestos fibers larger than 5 micrometers will not be allowed to exceed two fibers/cc * * * ." It cannot now be said that the carcinogenic character of asbestos is a recent discovery, occurring after the present regulation was promulgated. Clearly the 1972 regulation was adopted to protect employees both from asbestosis and from cancers of all types. The permanent standard mandated for that purpose was developed on the basis of medical knowledge then available and was set at 2 fibers per cc TWA, with a 10 fiber ceiling. The issue which we now face, then, becomes: Has any new evidence been adduced since 1972 which would require a change in the standard? We have found no such evidence.

Our review of the medical literature discloses a proliferation of studies concerning the health effects of asbestos. In general, they tend to confirm that which we knew in 1972: that exposure

standard of 2 fibers/cc. TWA., with a ceiling of 10 fibers/cc., is feasible technically and economically.

At this time, the industry has not achieved a 2 fiber level at all processing steps; but the consensus of informed opinion within the industry is that control to that standard can be achieved by the application of BAT, BAT being an optimum combination of known engineering techniques and carefully enforced work practices. With BAT in effect throughout the industry, there may be a few process steps which intermittently will exceed the 2 fiber level, but these incidents simply will have to be handled as emergencies. The 2 fiber level can be achieved in three to five years, although some portions of the secondary segment of the industry may require a somewhat longer period of time to attain a 2 fiber level of proficiency. Of course, during the three to five year period required to effect BAT, a constantly declining number of work stations will be operating over the 2 fiber level for decreasing percentages of the time.

The cost of installing BAT will not be insubstantial, but indications are that, for the larger part of the industry, the annual cost of achieving the 2 fiber level can be added to the cost of products sold without significant adverse impact upon market position. Exceptions to this generality may be the asbestos textile and friction products industries, as well as certain portions of the secondary industry segment; since, in these areas, aggressive foreign competition may deprive domestic producers of opportunities for price relief or may extend the already marked penetration of foreign

there will remain many process steps which operate regularly at 1 fiber/cc TWA or higher. For the present, it is necessary to assert as fact that a 0.5 fibers/cc TWA standard is not feasible.

It is the opinion of the asbestos industry that the selection of an appropriate exposure standard must be influenced by the limitations of the exposure measuring technique to be employed.

Extensive experience with the membrane filter test method, particularly since the 1972 asbestos regulation was adopted, has demonstrated its weakness. As the levels of airborne fibers to be measured decrease, a reasonable degree of statistical accuracy (i.e. $\pm 10\%$) can be maintained only by extending the sampling time or increasing the number of microscopic fields to be counted, or both. Of course, these modifications of the testing procedure increase the time required for its accomplishment and increase its cost. At low fiber concentrations the test becomes cumbersome and impractical to use for routine environmental monitoring. In addition, if sampling time is extended in the kind of mixed dust environment which frequently is encountered in industrial situations, the filter may be blinded by non-asbestos particles so that the asbestos fibers cannot be counted. Because of these problems, it is our view that to mandate the use of the membrane filter test method as an enforcement tool at a fiber concentration less than 2 fibers/cc TWA would be inequitable and questionable as a matter of due process.

Materials and finished product must move into and out of regulated areas, and employees in most cases must move where materials and product move. In the normal course of factory operations, regulated area employees occasionally must leave their areas for brief periods of time; and non-regulated area employees (i.e., maintenance, engineering and supervisory personnel) must enter regulated areas. Regulated area employees cannot practically be required to change their clothing whenever they leave the regulated area and, indeed, there is no need for such a change of clothing. It is highly unlikely that contaminated work clothing worn into a non-regulated area ever would create airborne concentrations of asbestos fibers in excess of any proposed exposure limit, even 0.5 fiber/cc. TWA. Access to regulated areas properly should be limited to those persons who have a legitimate function to perform there; and those individuals should be provided with personal protection, if indicated by conditions in the area where they will work and the kind of activity which they are to perform. Regulated area employees should remove contaminated work clothing at the end of the day and, of course, should not wear such clothing home.

The asbestos industry recommendations are designed to make the regulated area concept practical to administer and effective in restricting airborne asbestos contamination, in excess of the exposure limits, to those defined workplaces where appropriate personal protection can be provided. We suggest the elimination of the requirement for a roster of persons entering a regulated area, because such a record would have no value in support of employee health programs

METHODS OF COMPLIANCE

The OSHA proposal establishes the order in which methods of compliance must be utilized: first, engineering controls; second, work practices; and third, personal protection. The rationale for this ordering of the three basic modes of compliance undoubtedly is that machinery is not subject to the human failings which may reduce the effectiveness of work practice controls; and personal protection may be even less effective, because employees might be motivated to circumvent the protection afforded by respirators in quest of greater personal comfort or convenience. This approach by OSHA to the compliance problem is logical, but we doubt that it is practical to implement.

Our survey of the asbestos industry indicates that work practices in most cases are inseparably linked to engineering controls. The best engineered dust control system must be understood by the people using it, properly operated, and properly maintained. Carefully designed work practice steps must be prepared and taught for use when engineering controls fail. And the best engineering control system can be overwhelmed by poor work practices, even when the engineering controls are functioning. Moreover, excessive emphasis on engineering controls may have the effect of appearing to relieve the individual employee of responsibility for effective dust control; while, in the final analysis, it is our employees who make the entire dust control program work. We believe that work practices should be elevated to a status and significance at least co-equal with engineering controls.

For these reasons, the asbestos industry recommends a different treatment of small and intermittent users of asbestos in those provisions of the regulation concerning selection of methods of compliance. This class of employer should be able, within specified limitations, to use personal protection as their primary mode of compliance, provided they are especially careful to train their employees in the need for proper use of that protection.

MEDICAL SURVEILLANCE

The OSHA proposal, and the current regulation as well, if strictly enforced, would require medical examinations for virtually all industrial, and a large percentage of all commercial and service employees in the U.S. Since asbestos materials probably are present in every, or almost every, workplace and may under some conceivable circumstance release an asbestos fiber or fibers, there will be few workplaces where "employees (may not be) exposed to airborne concentrations of asbestos fibers". It is probable that OSHA did not intend that medical examinations be given to so many people, including large numbers of persons whose chances of exposure to harmful levels of airborne asbestos are nil. Nevertheless, the proposal is very broadly written.

Our survey of the asbestos industry indicates that combined industrial hygiene and medical costs are the most burdensome portion, financially, of the entire proposal. Wherever they can be reduced, without a negative impact upon the important objectives of the regulation, they should be so reduced. This will mitigate the inflationary impact of the entire asbestos hazard control program and avoid disruption of

report of findings instead of an "opinion", because a doctor's understandable fear of exposure to possible malpractice liability well might distort any opinion which he would be willing to give.

RECORDS RETENTION

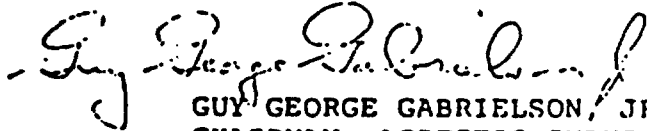
The retention of certain records generated under the regulation has obvious value. Retained records have utility, for a limited period of time, in the diagnosis and treatment of individuals who may have suffered health impairment as a result of exposure to airborne asbestos fibers. Retained records may be useful over a longer period of time as a data base for future epidemiological surveys. But records retention poses some problems.

Storing records for long periods of time entails a cost, though usually not a large one. It is, however, a considerable administrative burden; and, because it generally is not regarded as of urgent importance, the problems of storage may be neglected and the records preserved in a careless or haphazard fashion. OSHA has proposed that certain records be retained by employers for 40 years or for 20 years beyond the death or retirement of the employee to which they apply, whichever period of time may be the longer. It would not be surprising to find that many of these records, after the passage of time, are in poor order and in degraded condition. X-rays, in particular, will deteriorate if not properly developed and stored under appropriate, controlled circumstances. Large portions of the files may be in such bad shape as to be of no subsequent use, if left in the hands of private businesses.

during a working lifetime, there is no present justification for a lowering of the 2 fiber standard. We urge its retention.

With the additional changes recommended above and recorded in greater detail in the comments which follow, the proposed regulation, while costly, can be implemented by the asbestos industry.

Respectfully submitted,

A handwritten signature in cursive script, reading "Guy George Gabrielson, Jr.", written in dark ink.

GUY GEORGE GABRIELSON, JR.
CHAIRMAN, ASBESTOS INDUSTRY
TASK FORCE