H.E.A. Committee
1982(late)-1985

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

DATE October 29, 1985

To: Brake Performance Study Committee _____

Data Book & Technical Committee _____

Health & Environmental Affairs Committee X

_____ _____

Subject: Forwarding of Letter, Correspondence, or Publication

We are enclosing a copy of:

Letter sent to the House of Representatives and copy of HR 1309 "The High Risk Occupational Disease Notification and Prevention Act of 1985." This was forwarded to the Institute by the American Mining Congress. It would appear that certain secions of the proposed legislation could overlap OSHA regulations now in effect concerning rules on hazard communications.

For your information.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

Same letter to all members of Subcommittees on Labor Standards and Health and Safety

AMERICAN MINING CONGRESS
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1920 N STREET NW
WASHINGTON
DC 20036
202/861•2800
TWX 710•822•0126

October 21, 1985

The Honorable Joseph M. Gaydos
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Knowing of your interest in H.R. 1309, "The High-Risk Occupational Disease Notification and Prevention Act of 1985," I am enclosing a summary of the testimony presented by American Mining Congress (AMC) witnesses at the October 9 hearing held jointly by the Subcommittees on Labor Standards and Health and Safety.

As you may know, AMC represents the vast majority of the producers of the nation's coal, metals, and industrial and agricultural minerals, as well as manufacturers of mining machinery, equipment and supplies. As a representative of the nation's mining industry, we have a vital interest in the health and safety of our employees, and we are committed to their protection.

While we applaud, and wholeheartedly endorse, the concern for the protection of the workforce that led to the introduction of H.R. 1309, our serious concerns with the provisions of the bill demand we strenuously oppose its enactment.

Our concerns with the bill can be summarized in three general categories:

- **H.R. 1309 IS NOT NEEDED TO ACCOMPLISH WORKER NOTIFICATION OF HAZARDS OR EMPLOYEE PROTECTION**

  (a) Under OSHA and MSHA requirements, workers are trained regarding the hazards of workplace exposure and how to protect against them.

  (b) MSHA and OSHA conduct extensive industrial hygiene inspections that evaluate hazards at workplaces and result in enforcement actions if employees are not being properly protected.

We hope that this summary of our position will be useful to you in your consideration of H.R. 1309. If we can be of further assistance to you in this, or any other matter, please contact me or Henry Chajet, AMC senior counsel, at 861-2857.

Sincerely,

J. Allen Overton, Jr.
President

SUBCOMMITTEE ON HEALTH AND SAFETY

Rep. Joseph M. Gaydos (D PA—20), Chairman

MAJORITY: (4 D.) Representatives Gaydos, Murphy, Ford (MI) and Hayes.

MINORITY: (2 R.) Representatives Chandler and Roukema.

EX OFFICIO: Reps. Hawkins and Jeffords.

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Holzman, Sy	Deputy Staff Director	RHOB	B-345A	225-6876
Pogue, Barbara J.	Staff Assistant	RHOB	B-345A	225-6876
Bassford, Mary Lee	Staff Assistant	RHOB	B-345A	225-6876
Flanagan, Mary K.	Staff Assistant	RHOB	B-345A	225-6876
Morgret, Peter M.	Minority Legislative Associate	Annex 2	H2-535	226-3113

SUBCOMMITTEE ON LABOR STANDARDS

Rep. Austin J. Murphy (D PA—22), Chairman

MAJORITY: (4 D.) Representatives Murphy, Clay, Martinez and Williams.

MINORITY: (2 R.) Representatives Petri and Bartlett.

EX OFFICIO: Reps. Hawkins and Jeffords.

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Fiesta, Richard J.	Legal Counsel	RHOB	B-346A	225-1927
Faunce, Teresa	Clerk	RHOB	B-346A	225-1927
Rongaus, Lynn M.	Researcher Assistant/Paralegal	RHOB	B-346A	225-1927
McLuckie, Fredrick P., Jr.	Staff Assistant	RHOB	B-346A	225-1927

99TH CONGRESS
1ST SESSION

H. R. 1309

To establish a system for identifying, notifying, and preventing illness and death among workers who are at increased or high risk of occupational disease, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 27, 1985

Mr. GAYDOS (for himself and Mr. HAWKINS) introduced the following bill; which was referred to the Committee on Education and Labor

---

A BILL

To establish a system for identifying, notifying, and preventing illness and death among workers who are at increased or high risk of occupational disease, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "High Risk Occupational Disease Notification and Prevention Act of 1985".

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds that—

(1) many harmful substances and physical agents are in wide industrial and commercial use in the United States;

(2) a significant number of workers suffer disability or death or both from occupational diseases caused by hazardous occupational exposures;

(3) diseases caused by hazardous occupational exposures constitute a substantial burden on interstate commerce and have an adverse effect on the public welfare;

(4) there is a period of time between exposure and the onset of disease when it is often possible to medically intervene in the biological process of disease to either prevent or, by early detection, successfully treat many disease conditions;

(5) a significant number of identifiable occupational populations are at risk of developing diseases because of hazardous occupational exposures;

(6) by means of established edpidemiological, clinical and laboratory studies, it is possible to define and identify very specific worker populations at risk of contracting occupational diseases;

(7) there is no established national program for identifying, notifying, counseling, and medically monitoring worker populations at risk of occupational diseases;

(8) workers have a basic and fundamental right to know they have been exposed to an occupational hazard and are at risk of contracting an occupational disease;

(9) social and family services that reinforce health promoting behavior, reduce the risk of diseases;

(10) there is a lack of adequately trained medical and human service professionals, as well as appropriately staffed and equipped health facilities to recognize and diagnose occupational diseases;

(11) there is a need for increased research to identify and assist worker populations at risk of occupational diseases;

(12) through prevention and early detection of occupational disease the staggering costs of medical treatment and care in the United States can be substantially reduced.

(b) PURPOSES.—It is the purpose of this Act—

(1) to expand Federal research efforts to further identify and define worker populations at risk of occupational disease;

(2) to establish a Federal program to notify individual workers within populations at risk of occupation-

ally induced disease that they are at risk because of a hazardous occupational exposure, and to counsel them appropriately;

(3) to authorize and direct the certification of occupational and environmental health facilities;

(4) to establish a set of worker protections against discrimination on the basis of identification and notification of occupational disease risk.

SEC. 3. SURVEILLANCE AND RESEARCH.

(a) RESEARCH ON IMPROVED SURVEILLANCE METHODS.—The Secretary shall, primarily through the occupational and environmental health centers established under section 6, conduct research into improving the means of surveillance of employees exposed to occupational health hazards, and research into improved means of medical monitoring and treatment of employees exposed to occupational hazards. Such research shall include but not be limited to the following areas—

(1) studying the etiology and development of occupationally related diseases, and the development of disabilities resulting from such diseases;

(2) developing means of medical surveillance of employees exposed to occupational health hazards;

(3) examining the medical treatment of workers exposed to occupational health hazards, and means of

medical intervention to prevent the deterioration of the health and functional capacity of employees disabled by occupational diseases;

(4) studying and developing medical treatment and allied social services of employees exposed to occupational health hazards; and

(5) developing educational programs designed to assist employees and their families take measures which ameliorate the effects of those diseases.

(b) RESEARCH TO IDENTIFY POPULATIONS AT RISK.—(1) The Secretary shall undertake, or shall sponsor, additional epidemiological, clinical, and laboratory research to identify and define additional employee populations at risk of occupational disease.

(2) This expanded research shall be conducted or sponsored, or both, by the Institute.

(3) In conducting its research under this subsection, the National Institute for Occupational Safety and Health shall have access to prior and current employment, occupational, and health-related data and information maintained by agencies of the Federal Government.

(c) AUTHORITY TO EMPLOY EXPERTS AND CONSULTANTS.—In carrying out research under this section, the Secretary is authorized to engage the services of experts and consultants, as he deems necessary.

SEC. 4. RISK ASSESSMENT BOARD.

(a) ESTABLISHMENT.—There is hereby established the Risk Assessment Board which shall be located within the Institute. The Director of the Institute shall serve as the Chairman of the Board. The Board shall consist of four members in addition to the Chairman. Members shall be career Public Health Service employees designated by the Surgeon General of the United States to serve terms of five years, except that initially one member shall be appointed for three years, two members for four years, and two members for five years. The Board shall include an epidemiologist, toxicologist, industrial hygienist, and physician. There shall be a full-time Secretariat provided by the Institute to the Board.

(b) FUNCTIONS OF BOARD.—(1) The Board shall—

(A) review current medical and other scientific studies and reports concerning the incidence of disease associated with employment;

(B) report to the Secretary on the state of current research with respect to such diseases; and

(C) designate from this review employee populations at risk of disease associated with hazardous occupational exposures.

(2) In identifying populations at risk of occupational disease, the Board shall consider the following factors based upon the best available scientific evidence—

(A) studies of agents, processes, or jobs that may be toxic based upon epidemiologic and clinical observations of human populations, or animal and laboratory studies;

(B) studies relating to estimates of increased risk of death or disease in specific sites, systems or organs of the body in exposed populations.

(3) If the Board determines that a class or category of employees is a population at increased risk of occupational disease, it shall make such a finding and, within ten days of making such a finding, transmit a recommendation to the Secretary that the individuals within such population be notified under section 5 of this Act.

(4) If the Board determines that a class or category of employees is a population at high risk of occupational disease, it shall make such a finding and, within ten days of making such a finding, transmit a recommendation to the Secretary that the individuals within such population be notified under section 5 of this Act and be eligible for services and information under section 5 of this Act appropriate to the nature and extent of the risk.

(c) PRIORITY FOR REVIEW.—The Board shall undertake as its first priorities for review those employee populations exposed to hazardous occupational exposures for which there already exists a permanent standard under section

6(b)(5) of the Occupational Safety and Health Act. The Board shall transmit to the Secretary its findings and recommendations on these employee populations within one year from the effective date of this Act.

SEC. 5. EMPLOYEE NOTIFICATION AND COUNSELING.

(a) NOTIFICATION OF POPULATION AT RISK.—Upon a determination by the Secretary that a given class or category of employee is a population at risk of occupational disease, the Secretary shall notify each individual within the such population of the risk.

(b) CONTENTS OF NOTIFICATION.—The Secretary's notification shall include:

(1) The nature and degree of risk (high or increased) and the reasons therefor.

(2) An identification of the hazardous occupational exposure including the name, composition, and properties of known chemical agents.

(3) The disease or diseases associated with the hazardous occupational exposure.

(4) Any known latency periods from the time of exposure to time of the clinical manifestation of the disease.

(5) The size, nature, and composition of the population at risk.

(6) Counseling information appropriate to the level of risk including, but not limited to—

(A) the advisability of initiating a personal medical monitoring program;

(B) the most appropriate type of medical monitoring for the disease associated with the risk;

(C) the name and address of the nearest occupational and environmental health center certified under this Act; and

(D) the telephone number of the "hot line" established under subsection (c) of this section.

(c) TELEPHONE INFORMATION.—The Secretary shall establish a telephone "hot line" for the personal physicians of employees notified under this section, for the purpose of providing additional medical and scientific information concerning the nature of the risk and its associated disease.

(d) DISSEMINATION OF INFORMATION.—The Secretary shall prepare and distribute other medical and health promotion material and information on any risk subject to notification under this section and its associated disease as he deems appropriate.

(e) ACCESS TO INFORMATION.—In carrying out his notification responsibilities under this section, the Secretary shall have access to information and data contained in the

records of any Federal agency solely for the purpose of obtaining names, addresses and work histories of employees subject to notification under this section.

SEC. 6. OCCUPATIONAL AND ENVIRONMENTAL HEALTH CENTERS.

(a) SELECTION OF EXISTING FACILITIES.—(1) The Secretary shall select from educational resource centers of the Institute and similar centers of the National Institute for Environmental Health Sciences for the purpose of establishing and certifying occupational and environmental health centers within each facility. At a later date, the Secretary shall select for such purpose from existing health care facilities an appropriate number to obtain even regional distribution throughout the United States of such centers.

(2) Such centers shall be selected on the basis of their ability and experience in the recognition, diagnosis, and treatment, and research, of occupational diseases in an ethical manner and shall be certified as such under criteria developed by the Secretary.

(b) CAPABILITY OF CENTERS.—The centers shall be capable of providing research resources, diagnosis, treatment, medical monitoring, and family services for employees notified under section 3 of the Act who are at high risk of occupational disease.

(c) CRITERIA FOR MONITORING.—The Secretary shall develop criteria governing the most appropriate type of medical monitoring.

(d) COST OF TRAINING AND EQUIPMENT.—The Secretary shall be responsible for developing a program for training of existing personnel and procuring specialized equipment required under the certification criteria developed pursuant to subsection (a).

SEC. 7. EMPLOYEE DISCRIMINATION.

(a) DISCRIMINATION PROHIBITED.—No employer, insurance carrier, or any other person shall discharge or in any manner discriminate against any employee on the basis that the employee has been notified by the Secretary that he is at risk of any occupational disease.

(b) BENEFIT REDUCTION PROHIBITED.—If, based upon sound medical advice or medical monitoring (or both) initiated under section 4 of this Act, it is determined that an employee should be transferred to a less hazardous or non-exposed job, the employee shall retain the same rates of pay, benefits, and seniority as in the former job.

(c) DISCRIMINATION IN MONITORING AND TREATMENT PROHIBITED.—No health care financing system shall in any way discriminate against an employee who has been notified by the Secretary under section 5 of this Act in the payment of the costs associated with a medical monitoring

program, or any subsequent treatment, including treatment required by a medical monitoring examination or the onset of disease.

(d) REVIEW OF DISCRIMINATION COMPLAINTS.—(1) Any employee who believes he or she has been discriminated against by any employer, insurance carrier, or health care financing system in violation of subsection (a), (b), or (c) of this section, may, within three months after such violation occurs, apply to the Secretary for a review of such alleged violation. A copy of the application shall be sent to the person or institution alleged to have committed the violation, who shall be the respondent. Upon receipt of such application, the Secretary shall investigate the allegations, which shall include an opportunity for public hearings before an administrative law judge at the request of any party to present information relating to the alleged violation.

(2) The administrative law judge shall notify the parties in writing of the time and place of the hearing at least two weeks prior to the hearing. Any such hearing shall be subject to section 554 of title 5, United States Code. Upon receiving the report of such investigation, the Secretary shall make findings of fact. If the Secretary finds that there was no such violation, the Secretary shall issue an order denying the application.

(e) REINSTATEMENT.—Any employee who is discriminated against in violation of this section shall be restored to his or her employment and shall be compensated for—

(1) any lost wages (including fringe benefits and seniority);

(2) costs associated with his or her medical monitoring; and

(3) costs associated with bringing the allegation of violation.

(f) CIVIL PENALTIES.—Any person or institution that discriminates against an employee in violation of this section shall be liable for a civil penalty of not less than $1,000 or more than $10,000 for each violation as may be determined by the Secretary. Any such penalty may be recovered in a civil action brought by the Secretary in the approporiate United States district court.

SEC. 8. ENFORCEMENT AUTHORITY.

(a) INJUNCTIVE RELIEF.—Whenever it shall appear to the Secretary that any person or institution is engaged or is about to be engaged in an act or practice constituting a violation of this Act or any rule or regulation promulgated under this Act, the Secretary may bring an action in the proper United States district court to enjoin such acts or practices, and upon a proper showing an injunction or permanent or temporary restraining order shall be granted without bond.

(b) QUALIFICATION OF HEALTH CARE FINANCING SYSTEM.—Each health care financing system shall provide appropriate testing, evaluation, and medical monitoring services to employees as required under this Act.

(c) ALLOCATION OF COSTS TO HEALTH CARE FINANCING SYSTEM.—The cost of testing, evaluation, and medical monitoring required by an employee as a result of a hazardous occupational exposure and subsequent notification by the Secretary that such an employee is in a population at risk, as determined under this Act, shall be included as a covered item in any health care financing system available to such employee through his employment or as an individual purchaser of health insurance.

(d) SUBROGATION.—Any treatment provided by a health care financing system to an employee for a subsequent disease that was subject to a notification under section 4 of this Act, may constitute an insurance subrogation claim against a workers' compensation program or insurance carrier.

(e) EFFECT ON WORKERS' COMPENSATION CLAIMS.—The notification of an employee that the employee is in a population at high risk or a population at increased risk and the subsequent medical evaluation and monitoring shall not constitute a workers' compensation claim, nor shall such notice toll any statute of limitations with respect to such a

claim, except as may be specifically provided by law under a workers' compensation statute.

SEC. 9. AUTHORIZATIONS.

There are authorized to be appropriated for the fiscal years which begin on or after October 1, 1985, such sums as may be necessary.

SEC. 10. DEFINITIONS.

For the purposes of this Act—

(1) the term "employee" means any individual employed by an employer, or who is the primary beneficiary of employer-provided health insurance, or who is eligible for health insurance benefits under part A or B of title XVIII of the Social Security Act, for medical assistance under a State plan approved under title XIX of such Act, or for benefits based on disability under title II or XVI of such Act;

(2) the term "employer" means any person engaged in commerce or in an industry affecting commerce, or any agency of Federal, State, or local government;

(3) the term "insurance carrier" means any stock company, mutual company or association, or any other person or fund, or State compensation insurance fund, which is authorized under the laws of the United States to engage in the business of writing insurance;

(4) the term "Secretary" means the Secretary of Health and Human Services;

(5) the term "health care financing system" means a private or public system for financing health care in the United States, including public and private health insurance programs, and programs providing health insurance benefits under part A or B of title XVIII of the Social Security Act, medical assistance under a State plan approved under title XIX of such Act, and benefits based on disability under title II or XVI of such Act;

(6) the term "occupational and environmental health centers" means existing health care facilities certified by the Secretary under this Act to provide medical monitoring to employees at risk of occupational disease;

(7) the term "population at increased risk" means an employee population exposed to hazardous occupational exposures within which an associated disease occurs at a rate 30 percent greater than a comparable workers population not exposed to the hazardous occupational exposure;

(8) the term "population at high risk" means an employee population exposed to hazardous occupational exposures within which an associated disease occurs at

a rate 100 percent greater than a comparable worker population not exposed to the hazardous occupational exposure;

(9) the term "hazardous occupational exposure" means any harmful chemical, physical, or biological agent; industrial or commercial process or activity; or occupation found in the workplace which is associated with the risk of disease;

(10) the term "medical monitoring" means periodic medical examinations of employees who are at high or increased risk of occupational disease;

(11) the term "occupational disease" means any disease associated with hazardous occupational exposures which appears in a given employee population at rates exceeding that of the general population;

(12) the term "Board" means the Risk Assessment Board established by section 4 of this Act; and

(13) the term "Institute" means the National Institute for Occupational Safety and Health.

SEC. 12. EFFECTIVE DATE.

Except as may be otherwise provided therein, the provisions of this Act shall become effective one year after the date of enactment.

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FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 8 3 8

October 15, 1985

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAZARD COMMUNICATION RULES

The Federal Government through the Occupational Safety and Health Administration (OSHA) published its final rule on hazard communications on November 25, 1983. Essentially, this rule requires that manufacturers advise their employees on the hazards of chemicals with which they work. Included in "chemicals" are asbestos-containing products. Further, the rules require that manufacturers and importers transmit information to "downstream employers" by means of labels and material safety data sheets so that they may advise their employees of the hazards. The standard requires that manufacturers and importers label containers of hazardous chemicals and provide material safety data sheets to customers.

Recently, the Asbestos Information Association, NA (AIA) advised its Members on the Enforcement Guidelines that had been issued by OSHA to its inspectors. The inspectors will be determining the adequacy of a company's hazard communications program by certain specific examinations.

This standard becomes effective for manufacturers and importers on November 25, 1985, and for all employers (which would include Members' customers) on May 25, 1986. The Standard, among other things, required employers to maintain written records documenting certain procedures. In order to understand the rules and the program specifics, we have enclosed the following:

1. FEDERAL REGISTER Notice of November 25, 1983 on the Final Rule for Hazard Communications. (This does not include certain explanatory and background data which appeared in the full Notice).

2. Summary "OSHA Hazard Communication Enforcement Guidelines Issued" as prepared by the Asbestos Information Association.

3. Cover memorandum on the guide entitled "Workplace Hazard Communication Program for Asbestos."

4. Tabulation of OSHA Regional Office Addresses and Phone Numbers, as well as location and phone numbers for Area Offices.

5. U. S. Department of Labor "Material Safety Data Sheet."

Where you have questions on the rules, you should contact your Regional or Area Office of OSHA. The foregoing is sent as a matter of information.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates
Active Members - List B
H.E.A. Committee
Regional Members (U.S.Dues)

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
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PARAMUS, N. J. 07652

September 5, 1985

Mr. John Riopelle
Allied Automotive
Bendix Friction Materials Division
P.O. Box 238
Troy, NY 12181

Dear Rip:

Enclosed is an article excerpted from the August 30, 1985 edition of AIA's NEWS AND NOTES. It appears to be a good overview of the OSHA guidelines on enforcement of the OSHA Hazard Communications Standard.

To get further background on this, I called the local OSHA Office. The guidelines are apparently loose leaf supplements that are added to a master handbook used by OSHA Enforcement Officers. To get these, one apparently must subscribe to the Manual with the Government Printing Office.

I believe the Membership should be advised on these guidelines and on the Hazard Communications Standard. I don't believe I'd have any difficulty getting Bob Pigg's approval to reprint his excerpt. Perhaps you might have some suggestions on a bulletin to the Membership. If you have access to the August 5 copy of the guidelines, perhaps that would help.

Let me have your comments on this.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

OSHA Hazard Communication Enforcement Guidelines Issued

On Aug. 5, the Occupational Safety and Health Administration (OSHA) issued guidelines on the hazard communication standard for its compliance safety and health officers (CSHO) who conduct workplace inspections. The hazard communication standard, promulgated at 29 CFR 1910.1200 on November 25, 1983, requires chemical manufacturers and importers to label containers of hazardous chemicals leaving their workplaces and provide material safety data sheets with initial shipments to customers by Nov. 25, 1985. All manufacturing segment employers must have information and training programs regarding hazardous chemicals in place by May 25, 1986. The enforcement guidelines, OSHA Instruction CPL 2-2.38, provides general inspection guidance for enforcing the hazard communications standard, clarifications and interpretations of the standard, and procedures for evaluating chemical hazards.

The guidelines instruct inspectors to determine the adequacy of a company's hazard evaluation program, and lists four elements which should be included in such a program: 1) the person(s) responsible for evaluating chemicals, 2) the sources of information consulted, 3) criteria used to evaluate studies, for example, statistical significance, and 4) a plan for reviewing information to update MSDS if new and significant health information is found. Designation of a person or persons responsible for ensuring labeling of in-plant containers, obtaining and maintaining MSDS, and conducting training of employees will also be looked for by the compliance officers.

Compliance officers are to select a representative number of MSDS from workplaces they inspect to determine if they reflect an adequate hazard evaluation procedure. The sample size and particular sheets selected will depend on the number of chemicals in the workplace, the severity of the hazards involved, the completeness of the data sheets in general, and the volume of chemicals used in the workplace.

For hazard evaluation purposes, if a hazardous chemical is present in a mixture in reportable quantities, that is, 0.1% for carcinogens, and 1% for other health hazards, it must be reported unless the mixture has been tested as a whole. The guideline states that this procedure for mixtures would include chemicals which are hazardous only when airborne, using the example of silica, when they are in a wet mixture. "The employer is free to indicate that exposure potential is limited because of the physical form of the mixture, but the 'right-to-know' the chemical is present is not obviated by the physical state of the mixture."

Building on the example of silica, the guideline attempts to distinguish situations in which mixtures offer no possibility of exposure to a hazardous chemical and in which there is the potential for exposure. The standard defines

exposure as including potential as well as measurable exposure. If there really is no exposure under either normal conditions of use or in a foreseeable emergency, than the chemical is not covered by the standard. However, in the case of liquid mixtures, the guideline cautions that "this provision has to be considered very carefully. Using the silica example, it is possible that, if the mixture dries upon application, there is a potential for the silica to become airborne, and thus a potential for exposure. The presence of silica must be indicated on the MSDS for the liquid mixture in this situation."

Guidance is also given as to what would constitute a satisfactory information and training program under the hazard communication standard. Employees are to be trained at the time they are assigned to work with a hazardous chemical and retraining is to be conducted when a new hazard is introduced into the work area. The guideline states that giving an employee a data sheet to read does not satisfy the intent of the standard with regard to training. "The training is to be a forum for explaining to employees not only the hazards of the chemicals in their work areas, but also how to use the information generated in the Hazard Communication Program. This can be accomplished in many ways (audiovisuals, classroom instruction, interactive video), and ideally should include an opportunity for employees to ask questions to ensure that they understand the information presented to them."

Citations for violations of the hazard communication standard are to be issued when there is a complete lack of hazard communication program; when the employer has failed to perform a hazard determination; when no lists of hazardous chemicals are developed, or when they are incomplete; when a chemical manufacturer or importer fails to label shipped containers or has not provided MSDS to manufacturing purchasers; when an employer who has not received a MSDS has not made documented attempts to obtain it; when training required under the standard is not provided; and when an employer refuses to provide specific chemical identity information in a medical emergency.

Workplace Hazard Communication Program for Asbestos

This guide has been prepared to assist employers in the implementation of a workplace hazard communication program as required by the Occupational Safety and Health Administration's (OSHA) standard on hazard communication (29 CFR 1910.1200). The standard become effective for manufacturers and importers of hazardous chemicals on November 25, 1985, and for all employers on May 25, 1986. Among other things, the standard requires employers to maintain written records documenting certain procedures. That is the area of compliance focused upon in this guide.

Although parts of this guide are responsive to generally applicable provisions of the standard, it is meant to provide specific guidance with regard to asbestos. In an attempt to provide the most thorough advice, OSHA Instruction CPL 2-2.28, which establishes policies and provides clarifications for OSHA inspectors to ensure uniform enforcement of the hazard communication standard, was reviewed in addition to the standard itself, and its interpretations and requirements were incorporated into this guide. The hazard communication standard and OSHA Instruction CPL 2-2.38 are included as attachments "A" and "B" respectively. Existing material safety data sheets (MSDS) for asbestos were also consulted, and the views of AIA/NA's Technical Committee and other interested individuals

among the membership were solicited in the development of this guide.

A review of the standard and the instruction for OSHA inspectors which pertains to it indicates that written records documenting the following information should be developed and maintained:

1) Material safety data sheet (MSDS);

2) Hazard Warning Label;

3) Procedure used for hazard determination;

4) Plan for maintaining/storing collection;

5) Procedure to follow when MSDS is not received with the first shipment of hazardous chemical;

6) Procedure for employee access to MSDS and other written materials;

7) Plan for reviewing information to update MSDS and hazard warning label;

8) Procedure for informing employees of hazards of non-routine tasks involving chemicals;

9) Procedure for informing outside contract employers of chemical hazards in the workplace;

10) Procedure for obtaining information from outside contractors on hazards of chemicals they will bring into the workplace;

11) Designation of a responsible person for:

    a) evaluation of chemicals;
    b) labeling of in-plant containers;
    c) obtaining and maintaining MSDS.

The text which follows will address each of the areas enumerated above, with particular emphasis on asbestos where relevant. A model MSDS for asbestos and model language for

the hazard warning required on labels is included. Employers are encouraged to modify the general suggestions given below to fit more exactly the particular circumstances of their operations.

1. Material Safety Data Sheet

Please refer to ATTACHMENT "C" for a model MSDS for asbestos. In addition, employers must maintain a list of hazardous chemicals for which there must be data sheets.

2. Hazard Warning Label

The OSHA Hazard Communication Standard requires chemical manufacturers, importers and distributors to ensure that each container of hazardous chemicals which leaves the workplace is labeled, tagged, or marked with the following information: 1) identity of the hazardous chemical, 2) appropriate hazard warning, and 3) name and address of the chemical manufacturer, importer, or other responsible party. In addition, every employer must ensure that each container of hazardous chemicals in the workplace is labeled, tagged, or marked with the identity of the hazardous chemical it contains and an appropriate hazard warning.

The standard defines "container" as "any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical."

Pipes or piping systems are not considered to be containers. The standard also states that the employer is not to label portable containers into which into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer.

Section (f)(3) of the standard states that if a hazardous chemical is regulated by a substance-specific OSHA standard, labels are to be used in accordance with that standard. The OSHA asbestos standard requires the following wording for labels:

CAUTION
Containers Asbesos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

Discussions with OSHA staff indicate that the warning language of the asbestos standard should be used on labels. Written confirmation of this position, as per ATTACHMENT "D", has been requested.

3. Procedure Used for Hazard Determination

Because of the very extensive health-related literature on asbestos, a few, authoritative overviews of the subject

were chosen. These are the Annual Report on Carcinogens published by the National Toxicology Program; the Report to the U.S. Consumer Product Safety Commission by the Chronic Hazard Advisory Panel on Asbestos, (1983); Doll, Richard,and Julian Peto, Asbestos: Effects on Health of Exposure to Asbestos, (1985); Craighead, John E., and Brooke T. Mossman, "The Pathogensis of Asbestos-Associated Disease," 306 New England J. of Med.1446 (1982); and Churg, Andrew, "Current Issues in the Pathologic and Mineralogic Diagnosis of Asbestos-Induced Disease," 84 Chest 275(1983).

In addition, existing MSDS's on asbestos were collected and reviewed, and their information was integrated into the format required by the hazard communication standard.

4. Plan for Maintaining/Storing MSDS Collection

As MSDS are received from manufacturers, their arrival should be logged in, and then the MSDS themselves can be stored in alphabetical order by substance or by manufacturer, or cross-referenced to both, in a notebook or file cabinet set aside for that purpose. The notebook or file cabinet must be accessible to employees.

5. Procedure to Follow When MSDS Is Not Received With the First Shipment of a Hazardous Chemical

Manufacturers are required to supply their customers with

MSDS for hazardous chemicals in their first shipment of a product following the effective date of the standard, November 25, 1985. However, if an employer does not receive a MSDS from his supplier, he must make a documented attempt to obtain it, or he will be liable to citation by the OSHA inspector. This is a strong incentive to log in MSDS as they are received, so that the employer can keep track of them and know which suppliers to contact. In addition, the standard requires employers to maintain a list of hazardous chemicals in the workplace for which there must be data sheets.

A simple letter to the supplier along the lines of the model below should be sufficient:

> Dear _____:
>
> We have noted that in your shipment to us dated_____ we did not receive a material safety data sheet (MSDS) as required by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, for your product_____. Please forward us a MSDS for this product at your earliest opportunity, or advise us of the reason why a MSDS would not be required.

According to OSHA Instruction CPL 2-2.38, employers will not be held responsible for inaccurate information on MSDS supplied by the chemical manufacturer or importer which they have accepted in good faith.

6. Procedure for Employee Access to MSDS and Other Written Materials

MSDS which are received and stored in a notebook or file cabinet in some organized fashion must be made accessible to employees. Written procedures should specify the location and organization of the MSDS in the facility and the terms of their accessibility. They may be freely accessible at the employee's convenience; or accessible during certain hours; or by arrangement with the person responsible for maintaining the MSDS collection. MSDS should always be accessible in the event of an emergency, and the person maintaining them should have a back-up or make some other provision to see to it that this is so.

7. Plan for Reviewing Information to Update MSDS and Hazard Warning Label

The OSHA standard not only requires manufacturers to prepare and supply MSDS to their customers, but also provides that they be reviewed and updated so as to reflect the latest information on a hazardous chemical. This requirement can be fulfilled by having the person responsible for maintaining the MSDS collection conduct an annual review in one of the bibliographic data bases such as MEDLARS or TOXLINE. These data bases are available as an on-line computer service. They can also usually be accessed, or information concerning their use can be obtained, through the reference section of a local library. A list of rele-

vant data bases can be found in Appendix C of the hazard communication standard.

If the manufacturer, importer, or employer becomes aware of any significant, new information, it must be added to the MSDS within three months.

8. Procedure for Informing Employees of Hazards of Non-Routine Tasks Involving Chemicals

Before a procedure for non-routine tasks can be developed, the non-routine tasks must be identified. These will vary from workplace to workplace. Where asbestos is involved, non-routine tasks may consist of, for example, procedures to follow when ventilation systems are disrupted, emptying and cleaning the filter bags from a ventilation system, or maintaining and cleaning a particular piece of equipment. It is now necessary to identify and set down in writing the procedures which are to be followed in these situations.

9. Procedures for Informing Outside Contractors of Chemical Hazards to their Employees in the Workplace

Outside contractors whose employees will be working at a facility must be apprised of the chemical hazards at the facility, and this procedure must be in writing. The contractor should be informed of the chemicals to which his employees will be exposed and of appropriate precautions to be taken. This information will, again, vary from workplace to workplace and from contractor to contractor

depending on the nature of the task involved.

10. Procedure for Obtaining Information from Outside Contractors on Hazards of Chemicals They Will Bring Into the Workplace

This written procedure is merely the reciprocal aspect of the previous one. The obligation to provide information on hazardous chemicals is one that extends to both the employer and the contractor. For example, an outside contractor may perform sandblasting work or utilize solvents or cleaning agents which contain hazardous chemicals.

A standard paragraph for this purpose could be added to every agreement with outside contractors, along the following lines:

> The contractor agrees that before commencing performance he will provide the contractee with a list of all hazardous chemicals to be brought to the worksite and of the appropriate safety precautions to be followed with regard to them under the circumstances.

11. Designation of a Responsible Person for Evaluation of Chemicals, Labeling of In-Plant Containers, and Obtaining and Maintaining MSDS

While this requirement is self-explanatory, there are some related aspects which should be given consideration. For example, a responsible person should be available at the facility during each work shift in the event that an emergency arises which requires information on a hazardous

chemical. These responsible persons, to cover on occaisions when they are not available, should also have backups. A single, managing responsible person may be designated with a number of subordinate responsible persons.

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

August 23, 1985

Mr. John Riopelle
Allied Automotive
Bendix Friction Materials Div.
P. O. Box 238
Troy, NY 12181

Dear Rip:

I'm enclosing two items:

(1) Excerpt from minutes of the Membership Meeting this past June
(2) Copy of letter to OSHA of May 22, 1984.

The OSHA letter was prepared after a meeting of the Health and Environmental Affairs Committee on May 1, 1984. It was drafted in response to OSHA's proposals in the FEDERAL REGISTER of April 10, 1984. That, of course, was where OSHA had proposed two different exposure levels (0.2 fibers or 0.5 fibers).

You may recall that at the June 1985 Membership Meeting there was a recommendation that the Institute comment to OSHA on the proposed asbestos regulations. At that time I noted that we had responded with a formal well-thought out set of comments. The rejoinder to this was that because of changes in personnel at the regulatory agencies, that it would do well to either comment again or perhaps re-state our position. If re-stating our position, it was suggested that the Institute might comment further on substitute materials. And the last words of the minutes state:

> Mr. Riopelle was directed to review the May 1984 response to OSHA and have his Committee review the OSHA response for possible up-dating.

Please look this over, and give me a call at your convenience so we can figure some way to handle this.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/dr
Enc.

FMSI 02542

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE REPORT

Mr. John Riopelle, Chairman of the Health and Environmental Affairs Committee, presented his report. Refer to EXHIBIT 9.

Mr. Riopelle noted the activity last Fall with the Natural Resources Defense Council (NRDC) petition for the banning of the use of asbestos in automotive brakes, and the Institute comments to the EPA. He also noted that it appears there will be separate OSHA asbestos standards for manufacturing industries and the construction industry. He also noted that asbestos substitute materials were now generating data and he specifically referred to input on Dupont's Kevlar and on refractory (ceramic) fibers developed by Sohio Carborundum. Copies of these letters were given to the Secretary who will distribute copies to the attendees after the Meeting.

As regards OSHA regulations, Mr. Riopelle noted that there were several States that had stayed with the 0.5 fiber limit with respirators after OSHA adopted an Emergency Temporary Standard (ETS) in 1983. Among these States were Hawaii, Kentucky, Oregon, New Mexico and Tennessee. Several Members commented on the "Right to Know" laws adopted by several States, and it was stated that a Federal Law on the "Right to Know" will become effective in November 1985.

It was noted that the Institute had commented to OSHA on the proposed revisions to the asbestos standard in May 1984. At that time the Institute commented that the 0.2 fiber standard without respirator was not an attainable level. The 0.2 and 0.5 fiber limits with respirator might be achievable but the problem is enforcement of respirator requirements. It was suggested that the Institute comment to OSHA on possible enforcement of respirator usage during an interim transition period to the 0.5 level without respirator. The Secretary noted that the Institute had presented a documented position on the OSHA proposals in May 1984 and questioned a new response at this time. A Member stated that as with most regulatory agencies there are new people in the standards setting offices, and we could at least re-state our position as regards any changes in the exposure levels.

In any re-statement to OSHA, the Institute might add emphasis on the substitute materials and possible risks associated with them. OSHA should be informed that industry is working on the asbestos problem and that industry is concerned with the substitute materials. Mr. Riopelle was directed to review the May 1984 response to OSHA and have his Committee review the OSHA response for possible up-dating, if the Committee feels that is appropriate.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the report of the Health and Environmental Affairs Committee as written.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 8 3 3

August 2, 1985

EPA "ASBESTOS WASTE MANAGEMENT GUIDANCE"

Enclosed is a copy of a pamphlet developed by the Environmental Protection Agency (EPA) entitled "Asbestos Waste Management Guidance." Also enclosed is a copy of the letter I received earlier from the EPA's Office of Solid Waste and Emergency Response.

In that letter, the EPA advised on the availability of additional copies of the pamphlet. We ordered copies at that time and are now distributing them. Should you need additional copies they are available at $1.00 each from:

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402

(Request: EPA Pamphlet "Asbestos Waste Management Guidance," Order No. 055-000-00248-7)

It is suggested that this information be sent to the party within your organization with waste management responsibilities.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates
Health and Environmental Affairs Committee
Active Members - List B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 21 1985

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. E.W. Drislane
Friction Materials Standards Institute
Route 4, E-10
Paramus, New Jersey 07652

Dear Mr. Drislane:

Enclosed is a copy of a pamphlet entitled "Asbestos Waste Management Guidance" that was developed by the Office of Solid Waste of the U.S. Environmental Protection Agency (EPA).

The guidance provides information on the identification of asbestos, removal and containerization practices, and proper transportation and disposal. The pamphlet is intended to assist owners of buildings that contain asbestos, school officials, architects, asbestos removal contractors, industrial generators of asbestos waste, sanitary and hazardous waste landfill owners and operators, and State, local, and regional government officials.

The pamphlet is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, at a cost of $1 per copy. The order number is 055-000-00248-7.

Because the subject of this guidance may be of interest to the membership of your organization, we have also enclosed an EPA Press Advisory on the guidance for possible inclusion in your organization's newsletter or journal.

Sincerely,

John H. Skinner

John H. Skinner
Director
Office of Solid Waste

Enclosures

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

BULLETIN

NO. 710

March 9, 1981

ASBESTOS AND CURRENT EPA REQUIREMENTS
REGULATING HAZARDOUS WASTE DISPOSAL

Because of the concern of Members as to EPA requirements for hazardous waste disposal, the Institute's Health and Environmental Affairs Committee wishes to advise on two points: (1) Asbestos and products or waste materials containing asbestos are not now specifically named and included in the regulations governing the disposal of hazardous wastes promulgated by the EPA under the Resource Conservation and Recovery Act of 1976 (RCRA). (2) However, other substances used in the manufacture of friction products may be covered by the EPA's hazardous waste rules, as well as friction products and manufacturing process wastes which contain these substances or which test out as exhibiting any of the four hazardous waste "characteristics" established by EPA.

While the regulations as originally published specifically listed asbestos in its raw form as a hazardous waste, it was later "temporarily" removed from the list by EPA in a subsequent notice (Federal Register, Vol.45, No. 229, page 78538 of November 25, 1980). In the current regulations, asbestos is no longer listed as a "toxic," and therefore hazardous, waste substance. We are informed that the EPA has--at least temporarily--deferred control of asbestos to the regulations in the National Emissions Standards for Hazardous Air Pollutants (NESHAPS).

However, the definitions of hazardous waste and the listing of other wastes as hazardous wastes shall apply. A waste may be considered hazardous if it is listed in 40 CFR 261, Subpart D and/or meets the characteristics of hazardous waste (ignitability, corrosivity, reactivity and EP toxicity) as specified in 40 CFR 261, Subpart C. Friction Materials manufacturers should be aware that some heavy metals, including lead and barium, when found in certain concentrations in a waste and when tested using a specified method, may make the waste a hazardous waste and therefore, subject to the Resource Conservation and Recovery Act. It is up to the waste "generator" (normally the manufacturer or processor) to determine if his waste is, for such reasons, in fact a hazardous waste under the EPA regulations.

A copy of Title 40, Code of Federal Regulations, Part 261 - Identification and Listing of Hazardous Waste, as published in the Federal Register of May 19, 1980, is enclosed. As noted above, asbestos was subsequently removed from the list found in Part 261.33 (f), on page 33126.

EWD/erc
Enc:
cc-Delegates & Alternates
HEA Committee
Active Members-List C
Regional Members (USDues)
Licensees

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 8 3 1

July 2, 1985

ASBESTOS CLAIMS FACILITY

On May 1, 1985 the Institute advised on the establishment of an "Asbestos Claims Facility" by a group of asbestos producers and insurance companies.

More details on this claims facility were described recently in the WALL STREET JOURNAL. A copy of the article from the Journal is enclosed.

An item of interest is that the article states that claims facilities will be set up early next year in Boston and San Francisco. Earlier it had been projected that the facilities would be open this year. The May 1, 1985 Bulletin and press release more fully described establishment of the facility.

The foregoing is for your information.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates

WALL STREET JOURNAL, JUNE 21, 1985

Fifty Asbestos Makers, Insurance Firms Reach Agreement on Claims Facilities

By JONATHAN DAHL
Staff Reporter of THE WALL STREET JOURNAL

Fifty asbestos producers and insurance companies reached a definitive agreement to open claims facilities to eventually pay billions of dollars to asbestos victims.

The agreement, which first was announced tentatively by a smaller number of companies last year, marks a major step toward resolving some 30,000 asbestos-related lawsuits. In addition, it partially settles a multibillion lawsuit between four producers and about 75 insurers that recently went to trial in San Francisco.

But the agreement is far from a final resolution of all personal-injury asbestos matters. Several major former asbestos producers and insurers, including Manville Corp. and Travelers Insurance Co., haven't joined. In addition, attorneys for victims said they may challenge it.

"This doesn't make the problem go away, but it provides a basis for resolving it," said Scott Gilbert, an attorney in Washington, D.C., who helped negotiate the agreement.

Under the agreement, the companies will set up claims-handling facilities early next year in Boston and San Francisco. Those facilities will seek to settle lawsuits brought by individuals claiming they contracted various respiratory diseases from exposure to asbestos products. Asbestos is a mineral once widely used for building and pipe insulation.

The claims offices will handle disputes similar to the way insurance claims are handled, attorneys said. Although the offices won't be open until next year, some asbestos claims could begin to be filed as early as next fall, attorneys added.

The facilities' goal is to avoid the costly and time-consuming litigation that has plagued asbestos cases for years. About $1 billion has been spent on such cases in the past 10 years, but only a third of that has gone to victims while the rest has gone to attorneys, according to some recent studies. But the facilities won't block anyone from proceeding with or initiating litigation if they are unhappy with the facilities' offer.

"That's what provides a check on the facility," said Mr. Gilbert. "If it doesn't offer a fair settlement, people will go right back to the courts."

The facilities will be funded by the insurance companies to settle their policies with the producers. The amount of coverage that will be available runs into the billions of dollars over the next several years. The insurers also agreed to pay $15 million a year to run the facilities.

The agreement ends a bitter dispute between the producers and the insurers over the liability of asbestos claims. Asbestos related diseases often don't show up for many years after exposure, so many insurers couldn't agree which company was liable for which producer. Several lawsuits have been filed over the matter, and some were consolidated into the case in San Francisco.

To resolve the issue, the insurers compromised essentially by agreeing to divide their payments based on the length of their policies' coverage.

Several major insurers and former asbestos producers are included in the agreement, including Aetna Life & Casualty Co., Lloyds of London, Fireman's Fund Inc., Pittsburgh-Corning Corp. and U.S. Gypsum Co. But Manville, once the nation's largest asbestos-products maker, hasn't joined the agreement because it is still facing legal complications from its bankruptcy-court proceedings. It has been protected from creditor lawsuits under Chapter 11 of the federal Bankrutpcy Code since August 1982.

In addition, several major insurers that didn't agree with the compromise for resolving asbestos claims aren't included. Some have said, however, that they will consider joining the agreement later. "We're not opposed to the concept," said George McKeon, counsel for Travelers Insurance. "We just don't agree on how they're interpreting the policies."

Some attorneys for asbestos victims said the agreement might hurt their clients. Currently, asbestos claimants settle cases separately with as many as 20 producers, often for amounts higher than they would receive in joint settlements. But the agreement calls for the companies only to settle court cases jointly.

"This could be challenged on antitrust grounds," said Fred Baron, a Dallas attorney for asbestos victims. But he also called the agreement a "step in the right direction."

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

DATE JUN 27 1985

To: Brake Performance Study Committee ____

Data Book & Technical Committee ____

Health & Environmental Affairs Committee X

____ ____

Subject: Forwarding of Letter, Correspondence, or Publication

We are enclosing a copy of:

General Motors Corporation comments to the EPA's Office of Toxic Substances Control concerning the Natural Resources Defense Council (NRDC) petition to ban asbestos in automotive brake linings. GM addresses several points including difficulties in developing drum brake lining segments without asbestos, the chrysotile type asbestos, and the questions on substitutes.

For your information.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

FMSI 02549

April 17, 1985

Ms. Margaret Stasikowski
Director of Chemical Control Division
Office of Toxic Substances
U. S. Environmental Protection Agency, Room E-513
410 M Street, SW
Washington, DC 20460

Reference: OPTS-211015

Dear Ms. Stasikowski:

Attached is the General Motors Corporation (GM) statement on the referenced matter: Asbestos; Response to Citizens' Petition.

Since the issue of asbestos substitutes in motor vehicle brake systems is highly complex, technical representatives from General Motors would be pleased to meet with the Agency's technical work group to discuss the issue in detail. Please contact me at GM's Washington, D.C. office or call (202)-775-5082, to arrange such a meeting.

Thank you for the opportunity to comment on this issue.

Sincerely,

W. C. Chapman
Director,
Washington Office

Att.

cc: Public Information Officer (TS-793)
OPTS-211015

General Motors Corporation
Statement on
Asbestos in Brake Systems
April 17, 1985

INTRODUCTION

"Asbestos" is a generic name used to describe several naturally occurring minerals which have a similar fibrous crystal habit but not necessarily the same crystal structure or chemical composition. Since there is a definite chemical and crystallographic difference between the minerals, there are significant differences in their toxicological properties.

Standards for the protection of workers' health from asbestos promulgated by most other industrialized nations, including members of the European Economic Community and Canada, recognize the differences in toxicity between the various minerals comprising the substances generally called "asbestos." This is not true in the U.S.

Of those that have economic importance, chrysotile is the mineral form shown by scientific studies to be the least toxic of the asbestos family. Attached to this statement is a document submitted to the Occupational Safety and Health Administration by the Motor Vehicle Manufacturers Association of the United States, in May of 1984, which discusses the toxicological differences between the various types of asbestos.

Chrysotile is the only form of asbestos used by GM in vehicle and automotive brake production.

DISCUSSION OF FRICTION MATERIALS AND BRAKES

Scientific studies have shown that the decomposition products of chrysotile subjected to the high temperatures and pressures of brake applications are, for the most part, not fibrous, i.e., not asbestos. See references cited on page 7. This distinction is significant for auto mechanics who reline brakes and who use improper methods which create airborne dust. They are thus exposed to dust which, except for less than one percent, is not in a fibrous form. The quantity of remaining fibres is minimal (less than one percent) and is non-hazardous (submicron size) so that for the time it routinely takes to complete brake service operations it does not present a significant or unacceptable health risk.

Chrysotile possesses both primary and secondary properties which make the mineral well suited for use in motor vehicle brakes. The primary properties are related to the characteristics of the mineral itself. These include, for example, high coefficient of friction, thermal stability, and resistance to chemical attack. Secondary properties are more closely related to how the fibre-containing mixture behaves during use. Examples of secondary properties are flexing, bulking, and dispersive characteristics.

BRAKE SYSTEMS

The function of a brake system is to slow, stop, and hold a vehicle stationary. In general, brake systems operate by pressing stationary friction elements against a rotating drum or disc. The friction generated at the contact interface converts the kinetic energy of the moving vehicle to heat which is then dissipated to the atmosphere.

Most motor vehicle brake systems have certain elements in common:

- Metal drums or discs attached to the rolling wheels;
- Devices (i.e., caliper or wheel cylinder pistons) for pressing the stationary friction elements (or linings) against the rotating drum or disc;
- A linkage system (i.e., mechanical, pneumatic, or hydraulic) to transfer inputs from the driver to the caliper or wheel cylinder pistons.

In the United States and many other nations, motor vehicle braking systems are required by law to meet certain performance standards including: stopping distance from several different speeds using both new and burnished brakes on both fully and lightly loaded vehicles; fade resistance and recovery; hill holding capability; and water recovery. All vehicle brakes must also meet partial system performance requirements which assure the ability to stop within prescribed limits should part of the system fail to operate for any reason.

In addition to these legal requirements, brake design must meet the rigorous demands of customer expectations. They must be long lasting; they must not be noisy; they must not be "grabby" or create vibrations during stops; and they must provide adequate performance when subjected to certain levels of abusive driving, such as what might be encountered during mountain descents.

Engineers also impose technical requirements on brake linings in an effort to avoid failure in use and minimize warranty costs and customer dissatisfaction. These requirements include compatibility with drums and discs, structural strength, flexibility, freedom from swelling when subjected to high heat or moisture, low temperature performance, and reliability of attachment to backing material.

In general, chrysotile asbestos in combination with organic binders, fillers, and various other additives has been remarkably well suited as a brake lining friction material to meet all of the design objectives.

The search for better brake performance, however, has led the industry to use disc brakes on front wheels of most passenger cars and light trucks. Vehicle downsizing programs have also emphasized the need for higher performance in much smaller packages to realize weight and fuel economy savings. As a result of these demands, chrysotile based front disc brake lining materials were limited in their ability to meet the established design criteria in the more demanding environment created by the vehicle downsizing programs. The most significant limitation on

the continued use of chrysotile linings for front disc brakes was its thermal, or heat capacity.

The disc brakes on some vehicles may encounter temperatures beyond the heat capacity of chrysotile based linings. The need for a friction material which could withstand these temperatures led to the development of a lining composed of metallic fibres in various binders, fillers and additives. These brake linings are called semi-metallic.

Today virtually all domestically built GM passenger cars and light trucks have front disc brakes with semi-metallic linings. Some medium and heavy trucks are equipped with disc brakes using semi-metallic linings and their use in these truck classes is expanding.

However, semi-metallic pads created a new set of problems for the brake designer, for example:

- They are more susceptible to corrosion.
- They can be noisy, particularly when hot.
- They are generally less effective on the first few cold stops.
- They are good heat conductors. As a result, in some brake configurations, the brake fluid can be vaporized by the intense heat generated during repeated hard braking. To help alleviate this, some semi-metallic pads include an asbestos backing which serves as a thermal insulator.
- They are more expensive than chrysotile linings.
- They are more difficult to manufacture than chrysotile linings.

Approximately nine years of production experience has resulted in solutions to most of these problems for front disc brake applications, but similar successes have not been accomplished on applications for rear drum brakes.

Since semi-metallic lining materials have successfully supplanted asbestos in disc brakes, there has been some hope that these materials could lead to the elimination of asbestos from vehicle brakes altogether. Thus far, attempts to develop drum brake linings using semi-metallic materials have had very limited success. One reason for limited success in this area is the relative inflexibility of semi-metallic linings.

The rear brake drum is a curved surface, so the rear brake shoe is curved to fit the drum. The flexible, resilient nature of chrysotile fibres in the brake lining mix allows the shoe to be fabricated and curved in an arc shape, as opposed to the flat configuration of a disc brake pad. Since the stresses on a lining are not equally distributed over the arc of the shoe, it is important that the shoe and lining remain flexible over their life. Attempts to develop drum linings from semi-metallic materials, which are less flexible than chrysotile, have often been set back by cracks that appear in the lining.

The challenges in developing passenger car non-asbestos drum brake linings are compounded in heavy duty truck brakes -- the brakes are

larger, the energy dissipation requirements are greater, and the stresses on the lining are far more severe.

Although use of disc brakes on the rear for passenger cars and light trucks has the potential for asbestos elimination, rear disc brake usage has been limited by a number of factors. These include the fact that rear disc brakes are generally more expensive and heavier than drum brakes because both the mechanical and hydraulic mechanisms that apply force in a disc brake must apply higher forces than those required in a drum brake. Also, although a disc brake by itself is inherently self-adjusting, when it also functions as a parking brake (e.g., when used as a rear brake) an adjuster mechanism must be added. An additional problem is that rear disc brakes which perform the parking brake function, which relates to the entire mass of the vehicle, must be made large enough for this purpose. On some vehicles this may make them too effective for service brake applications for which only the rear mass is important. Furthermore, in a rear disc brake the higher forces required for parking brake applications can require more complicated and costly apply mechanisms, such as ratcheting foot brakes and more efficient cable systems. Another consideration is that when rear disc parking brakes are applied while hot, they are subject to loss of hill-holding capability when they cool down. Because of these factors, the likelihood of universal usage anytime in the immediate future is unrealistic, although GM is in the process of increasing usage of rear disc brakes.

The above difficulties notwithstanding, General Motors maintains strong programs to seek alternatives to asbestos in brakes, being careful to assure comparable or improved performance when substitutes are considered. One reason we are investigating alternatives is to find materials that will withstand high braking temperatures as well as asbestos. Most recently, a new generation of brake lining materials, known as "non-asbestos, non-metallic," has entered the testing programs. However, these linings contain materials for which there is very little information on their potential health effects. Future use of these materials must be contingent upon favorable results of extensive health studies, as well as tests for mechanical durability and performance.

Our statement has dealt with the issue of original equipment brake linings, but the Citizens' Petition also addressed the aftermarket issue. In the opinion of General Motors engineers, it is not a sound idea to substitute non-asbestos linings in a brake system designed for asbestos linings, and vice versa. Because of differences in the design and operating parameters between asbestos and non-asbestos brake linings, only service linings meeting the manufacturer's original equipment specifications should be used.

Some have suggested that non-asbestos lining can be used on older vehicles if the application system is altered to make it compatible with different materials. The engineers also advise against altering the

vehicle brake system (such as changing proportioning valves or wheel cylinder sizes) in an attempt to make it compatible with a lining material for which it was not designed. Such alterations can result in unacceptable braking characteristics if the brake balance intended in the design is disturbed.

General Motors brake linings are pre-ground at the factory and need no additional grinding during installation as replacement linings. The packaging box containing the linings has a cautionary label indicating that the linings contain asbestos fibres, that the user should avoid creating dust, and that breathing asbestos dust may cause serious bodily harm. This warning is provided despite the fact, as explained previously, that chrysotile is the least toxic mineral of the asbestos family.

AVAILABILITY OF SUBSTITUTES

It has been alleged that for nearly all purposes, including motor vehicle brakes, asbestos substitutes are currently available on a commercial basis. This is a gross over-generalization and must be conditioned by product-specific and application-specific constraints.

In motor vehicles an asbestos-containing material or component is usually part of some larger system. For example, chrysotile-containing friction materials (brake linings) are part of the larger brake system, which includes many interconnected parts like the front discs and the hydraulic cylinders. Thus, the overall question of suitable asbestos substitutes must be addressed with a view to the performance of that total system, not just the performance of the asbestos-containing part. Direct substitution of some other fibre for chrysotile requires modification of the larger system. Therefore, a substantial research, design, and testing effort would be required before a substitute material could be released for full production. This effort is necessary even though there may be existing substitute materials for other, similar (but not identical) applications.

Within a total systems concept, substitution must be approached on a product-by-product, function-by-function basis long before a vehicle design is released for production tooling. Thus, substitute materials must be fully tested for performance in the vehicle. Safety, consumer acceptability, health, and environmental considerations all must be evaluated well before production can begin. When considering chrysotile substitutes an overriding consideration is that no material will be acceptable if it (1) compromises vehicle safety, (2) results in unacceptable vehicle performance, or (3) would result in an unacceptable public health hazard at expected levels of exposure.

Chrysotile offers a unique combination of properties in a single material. In spite of extensive research and development efforts to resolve the problems referred to previously, General Motors is not aware of any substitute material that matches adequately the properties of chrysotile for drum brake usage.

SUMMARY

Developing and approving acceptable substitute materials is a task requiring extensive research and testing programs. Potential substitute materials and component configurations must be evaluated for safety, durability and consumer acceptability over the wide range of environmental conditions under which motor vehicles operate.

The "ripple effects" of a substitution must also be investigated to be sure the performance of other vehicle components will not be adversely affected.

Redesigned braking systems using non-asbestos brake lining materials are in varying stages of development and testing. Some engineers predict that many of the non-asbestos systems can be brought on-line within a short--three to five year--time frame. However, many other engineers agree there are certain applications for which the prospects of finding acceptable chrysotile substitutes are not bright.

Any health risk from asbestos, even in the chrysotile form, in factories where brakes (linings, etc.) are manufactured, is controlled by requirements of the Occupational Safety & Health Administration (OSHA). Auto mechanics who reline brakes and take no steps to protect themselves from dust are exposed at most to a minimal quantity of asbestos, in a form and for such a brief period of time, that no significant health risk is presented. The general public sustains even less risk. Consequently, no threat to health which would justify EPA intervention seems evident.

Finally, we believe it would be unwise to mandate use of substitute materials, where the health effects of these materials are unknown. With respect to chrysotile, extensive use has demonstrated its acceptable performance under many conditions, and no significant threat to public health because of that use has been shown.

General Motors agrees with the Agency's plan to assemble data on, and review the current status of, substitutes for asbestos in motor vehicle brake systems. We also agree with the Agency's conclusion that current data do not support a finding of "unreasonable risk," justifying an immediate ban on use of asbestos in brakes.

* * * * *

Attachment: "Motor Vehicle Manufacturers Association of the United States Comments on Proposed Asbestos Standard of the Occupational Safety and Health Administration," dated May 24, 1984.

References:

(1) J. R. Lynch, "Brake Lining Decomposition Products," Jour. Air Pollution Control Assoc., 18, 824 (1968)

(2) A. E. Anderson, R. L. Gealer, R. C. McCune, and J. W. Sprys, "Asbestos Emissions from Brake Dynomometer Tests," Paper 730549, Presented at Society of Automotive Engineers (SAE) International Automotive Engineering Congress, Detroit, MI, 1973

(3) M. G. Jacko and R. T. DuCharme, "Brake Emissions: Emission Measurements from Brake and Clutch Linings from Selected Mobile Sources," Bendix Research Laboratories, Southfield, MI, Report 68-04-0020, March 1973

(4) R. L. Williams and J. L. Muhlbaier (1980), "Characterization of Asbestos Emissions From Brakes," Environmental Science Department, General Motors Research Laboratories, Warren, MI, pub. ENV #89, 20 p.

(5) R. L. Williams and J. L. Muhlbaier (1980), "Gas and Particulate Emission Rates From Asbestos Brake Linings," Environmental Science Dept., General Motors Research Laboratories, Warren, MI, pub. ENV #91, 19 p.

(6) R. L. Williams (1980), "Design and Construction of a Test Facility to Characterize Brake-wear Emissions," Environmental Science Dept., General Motors Research Laboratories, Warren, MI, pub. ENV #96, 12 p.

(7) R. L. Williams and J. L. Muhlbaier (1980), "Contribution of Brake Lining Wear to Urban Airborne Asbestos," Environmental Science Dept., General Motors Research Laboratories, Warren, MI, pub. ENV #97, 12 p.

(8) R. L. Williams and J. L. Muhlbaier (1982), "Asbestos Brake Emissions," Environmental Research, vol. 29, pp. 70-82

(9) S. Cha, P. Carter, and R. L. Bradow, "Simulation of Automobile Brake Wear Dynamics and Estimation of Emissions," paper 831036, presented at Society of Automobile Engineers, Passenger Car Meeting, Dearborn, Michigan, 1983

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 8 2 3

May 1, 1985

ASBESTOS CLAIMS FACILITY

Enclosed is a press release on establishment of the "Asbestos Claims Facility." This is a private sector initiative by producers and insurers to effect reasonable solutions to claims of parties for asbestos-related injuries. Mr. Comins, President, suggested that information on this facility would be of interest to the Membership.

This press release was the source for articles that appeared in industry magazines over the past several weeks.

Essentially, this is an attempt by the industry-insurance group to provide equitable solutions to the massive asbestos claims litigation crowding the country's courts. Most producer - members of the group are those involved with the construction trades who bore the brunt of the early asbestos litigation. While the Manville Corporation is listed as a "conditional" producer sign-up, it withdrew from the group after filing for Chapter 11 protection.

There is no formal contact or Office at this time. It is expected that a headquarters Office will be set up in Boston within the next several months.

The foregoing is for your information.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates
Regional Members (U.S. Dues)

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

April 8, 1985

Mr. John Riopelle
Allied Automotive
Bendix Friction Materials Division
P.O. Box 238
Troy, NY 12181

Dear Rip:

The Annual Meeting will be the week of June 17, 1985 at Dunfey-Hyannis, Cape Cod. I'm now asking for a report for your Health and Environmental Affairs Committee. A copy of your report for the June 1984 Meeting is enclosed. Actually, we did not hold a meeting of the H.E.A. Committee in fiscal 1984-85 (July 1, 1984 - June 30, 1985). The last meeting was May 1, 1984 where we primarily prepared a response to OSHA on their proposed rules for Occupational Exposure to asbestos.

Since that time, we had a meeting of Mr. Comins' ad hoc Committee for preparation of a ballot on an asbestos ban petition which was changed to consider the Natural Resources Defense Council petition filed in the Fall of 1984. You then met with the Board of Directors and the remnants of that ad hoc Committee on October 25, 1984 after which we prepared comments that were sent to EPA on November 13, 1984. Then, of course, EPA responded to the NRDC petition, granting it but seeking ing more information.

Then later, EPA passed the asbestos question to OSHA and CPSC, which referral is now being reconsidered. In the meanwhile, there was a flurry of activity in Maryland in late January on a proposed bill calling for the prohibition of distribution and sale of brakes containing asbestos. That fortunately died in Committee.

And, we asked EPA to see that our November 13, 1984 comments were considered, wherever the question on asbestos brake linings was to be studied. That's about it. I hope you can prepare a report which may enliven or enlighten the Members in June. If there is something I can do to help with your report, please let me know.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

March 13, 1985

To: Officers and Board of Directors
Health and Environmental Affairs Committee

Subject: Comments to the Environmental Protection Agency

On February 21, 1985 we sent Officers, Directors and HEA Committee Members a notice referring to a Institute letter drafted for the EPA concerning comments on the Natural Resources Defense Council (NRDC) petition advocating a prohibition on the use of asbestos in automotive brake linings. The trigger for this proposed letter was the EPA plan to transfer authority for regulation of asbestos to the Occupational Safety and Health Administration (OSHA) and the Consumer Product Safety Commission (CPSC).

There were no criticisms of the letter as drafted. However, as a result of questions arising from a possible suspension of the decision to transfer responsibilities, Mr. Riopelle and I agreed that the wording of the comments to EPA should be changed.

I am enclosing a copy of the letter that the Institute is now sending to the EPA. For your information.

E. W. Drislane
Executive Director

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

March 13, 1985

TSCA Public Information Office (TS-793)
Office of Toxic Substances
Environmental Protection Agency
Room E-107
401 M Street, SW
Washington, DC 20460

Subject: Grant of Petition Filed by the Natural Resources Defense Council on the prohibition of the use of asbestos in automobile and truck brakes (FEDERAL REGISTER 12-19-84)

Gentlemen:

The Friction Materials Standards Institute commented earlier on subject Natural Resources Defense Council petition.

Because of questions on the transfer of authority for regulation of asbestos hazards from the Environmental Protection Agency to the Occupational Safety and Health Administration and the Consumer Product Safety Commission, the Institute is uncertain as to what regulatory actions will be taken as regards the possible prohibition of asbestos in automotive brakes.

We ask, therefore, that the Institute comments of November 13, 1984 on this petition be forwarded to those to be responsible for regulation concerning asbestos in brakes. Also, we ask that those considering regulation of asbestos in brakes advise the Institute so that it can provide input in this regulatory area which could so profoundly impact the manufacturers of brake linings.

We are enclosing a copy of our November 13, 1984 comments referred to above.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

February 21, 1985

To: Officers and Board of Directors
Health and Environmental Affairs Committee

Subject: Comments to the Environmental Protection Agency

In recent correspondence, we have asked for input as to whether the Institute should comment further on the EPA grant of a petition by the Natural Resources Defense Council to prohibit the use of asbestos in automobile brake linings. Subsequently, we advised that EPA had transferred authority for asbestos regulation to the Occupational Safety and Health Administration and the Consumer Product Safety Commission.

After reviewing input - which was primarily to be sure that the Directors reviewed and approve any comments - I worked with Mr. John Riopelle, Chairman of the Health and Environmental Affairs Committee and we prepared the enclosed draft.

Unless we hear comment to the contrary, it is my intention to send the enclosed comments to the EPA prior to the March 25, 1985 comment cut-off date.

The foregoing is for your information.

E. W. Drislane
Executive Director

E.P.A. PULLS BACK ON ASBESTOS RULES

Says It Will Suspend Decision to Turn Over the Regulation to Two Other Agencies

By PHILIP SHABECOFF
Special to The New York Times

WASHINGTON, March 8 — The Environmental Protection Agency pulled back today from a decision announced last month to turn over the regulation of asbestos to two other Federal agencies.

The environmental agency also said tonight that it would publish rules next week for reducing the pollution from truck and bus engines. The announcement of the pollution standards came after Lee M. Thomas, the agency's Administrator, met with David A. Stockman, director of the Office of Management and Budget, who had objected to the rules.

A spokesman for the environmental agency said this evening that differences had been worked out and the rules would be published as drafted.

The truck and bus emission regulations, like the asbestos issue, had been regarded by some members of Congress and by environmental groups as a test of whether Mr. Thomas could resist efforts by the budget office to set regulatory policy for the E.P.A. Mr. Thomas became head of the agency in January.

Asbestos Rules Opposed

The agency decided last month to transfer regulatory authority over asbestos after the budget office withheld approval of proposed E.P.A. rules to ban some uses of asbestos immediately and to gradually eliminate all other commercial uses over 10 years.

At the time, the agency said it was required under the Toxic Substances Control Act to defer to other agencies that were in a better position to assess and control the risks of hazardous substances. E.P.A. officials said they had no choice other than to transfer regulatory authority over asbestos to the Labor Department's Occupational Safety and Health Administration and to the Consumer Product Safety Commission.

Critics in environmental organizations and labor groups complained that the agency had given in to pressure by the budget office, which strongly opposed the rules for banning and phasing out asbestos.

Today, however, the assistant environmental administrator, A. James Barnes, said that closer examination of the issue had turned up a number of unanswered legal and policy questions regarding the transfer of authority. The agency is is suspending its decision until it determines the answers to those questions, he said.

Mr. Barnes also said that the decision to re-examine the issue had been influenced by the fact that Representative John D. Dingell, Democrat of Michigan, had raised questions about the legality of the transfer of authority and had asked the Investigations Subcommittee of the House Energy and Commerce Committee to conduct an inquiry into the circumstances of the transfer.

In a telephone interview this afternoon, Mr. Dingell said his subcommittee had opened its investigation because the law required the E.P.A. to make decisions on hazardous substances such as asbestos and "the things we saw suggested that O.M.B. was making the decisions and that the decisions were not being made in accordance with law."

Moynihan Raised Questions

Mr. Barnes also said questions raised about the issue by Senator Daniel Patrick Moynihan, Democrat of New York, and Senator Dave Durenberger, Republican of Minnesota, had played a role in the decision to take a fresh look at the agency's legal responsibilities for regulating asbestos.

According to officials within the E.P.A., one reason for the agency's retreat from the earlier decision was a widespread belief in the agency that the Labor Department's safety and health arm did not have the resources or the interest to be an effective force in protecting the general public from the dangers of asbestos.

Asbestos, long used as a building and insulating material, has been found to cause lung cancer and other diseases. The proposal for regulating asbestos had been at the budget office for more than a year without a resolution.

The new final rules for trucks and buses, which are being issued under a court-ordered timetable, will require traps to be installed on all vehicles to catch solid particles from diesel and gasoline engines no later than 1994. They would require reductions in emissions of nitrogen oxides by 1988.

David D. Doniger, a lawyer for the Natural Resources Defense Council, which had successfully sued to force the agency to issue the truck and bus standards, said tonight he was glad that Mr. Thomas and not Mr. Stockman had determined what the rules would be. But he said the rules would still be inadequate to protect public health and the environment in a timely way.

[OPTS 140052; BH-FRL 2796-7]

Asbestos; Disclosure of Confidential Business Information to Congress

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce of the House of Representatives has requested information from EPA concerning the submission of two draft proposed rules on asbestos to the Office of Management and Budget (OMB) in 1984 and the withdrawal of the draft proposed rules in 1985 to allow for the implementation of section 9 of the Toxic Substances Control Act (TSCA). To comply with this request, EPA will provide the Subcommittee copies of numerous documents surrounding the development of the draft asbestos rules and the decision to invoke section 9. One of those documents contains information which has been claimed as confidential by asbestos miners, importers, and processors.

DATE: Documents containing information claimed as confidential will be provided to the Subcommittee no sooner than March 23, 1985.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M St., SW, Washington, D.C. 20466, Toll-Free: (800-424-9065), In Washington, D.C.: (554-1404), Outside the USA: (Operator-202-554-1404).

SUPPLEMENTARY INFORMATION: In a letter to EPA dated February 25, 1985, the Chairman of the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce stated that the Subcommittee has initiated an inquiry into the circumstances surrounding EPA's submission of two draft proposed rules on asbestos to the Office of Management and Budget in 1984, the withdrawal of those rules in early 1985, and the subsequent referral of potential asbestos regulation to the Occupational Safety and Health Administration under section 9 of TSCA. As part of that inquiry, the Chairman requested information and copies of documents relating to the drafting of the proposed asbestos rules and to communications among EPA, OMB, and other Federal agencies concerning the draft proposed asbestos rules.

Included in the documents responsive to the Chairman's request is the Regulatory Impact Analysis (RIA) for the draft proposed asbestos rules. That document contains detailed information on all aspects of the asbestos industry, including figures on asbestos consumption, production, importation, pricing, and exposure. Much of this information was obtained directly from asbestos producers and processors under the authority of section 8(a) of TSCA. Some of this information submitted to the Agency and incoporated into the RIA has been claimed confidential by is submitters.

Under 40 CFR 2.306(h), EPA is required to provide confidential business information to a congressional subcommittee in response to a written request by its chairman. Before providing that information, however, 40 CFR 2.209(b) requires that the submitters of the information be notified of the proposed disclosure at least 10 days in advance of its occurrence. This Federal Register notice is being published to provide notification to all asbestos producers and processors who have submitted asbestos information to EPA under section 8(a) of TSCA that the Agency will permit the House Subcommittee on Oversight and Investigations to have access to the RIA containing information claimed confidential. This access will occur no sooner than 10 days after publication of this notice.

Before being provided access to confidential business information, the Subcommittee staff members designated by the Chairman to have access will be briefed on the appropriate security procedures to be followed and will be informed of the provisions of section 14 of TSCA, which set criminal penalties for unlawful disclosure of confidential business information. Portions of the document containing information claimed confidential will be clearly designated.

The Subcommittee has not indicated when it will review the TSCA confidential business information.

Dated: March 11, 1985.

John A. Moore,

Assistant Administrator for Pesticides and Toxic Substances.

[FR Doc. 85-6145 Filed 3-12-85; 8:45 am]

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

February 1, 1985

To: Health and Environmental Affairs Committee
Officers and Board of Directors

Subject: Transfer of Authority Over asbestos regulation from EPA's Office of Toxic Substances to OSHA

Enclosed is a copy of the news article that appeared in the NEW YORK TIMES of February 1, 1985 concerning asbestos regulation. In effect, EPA has transferred responsibility of regulation of asbestos to OSHA. (The Consumer Product Safety Commission is not involved with asbestos in friction materials).

This is a major development in the regulation of asbestos. It is certain to bring on controversy from the environmental and consumer activist groups.

What effect it will have on the current call by EPA for comments on consideration of a possible prohibition on the use of asbestos in automotive brakes is not known. When the dust settles on this, I will try to determine what action is likely as regards asbestos in friction materials.

It would appear that this action should help guarantee employment for many of the young men and women who have recently graduated from Law Schools, particularly in the Washington, DC area.

E. W. Drislane
Executive Director

EWD/e

NEW YORK TIMES, February 1, 1985

E.P.A. to Transfer Authority Over Asbestos to 2 Agencies

By PHILIP SHABECOFF
Special to The New York Times

WASHINGTON, Jan. 31 — The Environmental Protection Agency will turn over the regulation of asbestos hazards to two other agencies, A. James Barnes, Acting Deputy Administrator of the E.P.A., said today.

The transfer of authority means that the environmental agency's proposal to ban several uses of asbestos immediately and eliminate other uses gradually over the next 10 years will be shelved, at least for the time being.

Mr. Barnes said the Toxic Substances Control Act required the agency to defer to other Federal bodies that were in a more favorable position to assess and regulate the risks from hazardous substances. Accordingly, the agency is sending its data on asbestos to the Labor Department's Occupational Safety and Health Administration and to the Consumer Product Safety Commission for evaluation and regulatory action.

"There is not much room for us to do anything else on this," he said.

Option to Reconsider

He said that if the two other agencies did not act, then the environmental agency would "re-evaluate its position." But he also said that if the occupational safety agency ruled that asbestos did not present an unreasonable risk to workers' health, than regulatory action would be halted.

He also said that the environmental agency was considering whether it needed to develop rules for situations not covered by OSHA or the consumer safety agency.

The decision is likely to provoke strong reaction. Labor organizations and environmental groups have been especially critical of the occupational safety agency in the Reagan Administration for what they describe as its failure to enforce rules to protect workers' health and safety.

The decision to transfer authority came after the E.P.A.'s proposed rules to ban asbestos had been under scrutiny at the Office of Management and Budget, agency officials noted. They said the suggestion that OSHA and the consumer agency were the proper places to regulate asbestos originated with the budget office.

Asbestos, long a widely used building and insulation material, has been found to cause lung cancer and other diseases in humans.

Responsibility for Schools

Officials of the environmental agency said that while the regulation of asbestos was generally being transferred to the other Federal agencies, their agency would continue to be responsible for dealing with the problem of asbestos in schools. The agency is requiring school systems to inspect their buildings for asbestos hazards, but it does not require specific actions to remove the hazards.

The environmental agency is also transferring authority to OSHA to regulate 4,4-methylenediamialine, a widely used component of polyurethane, epoxy resins and other products that has caused cancer in test animals. The agency plans to turn over its regulatory functions on a number of other chemicals to different Federal agencies, officials there said today.

The reason, an agency expert said, is that the toxic substances law requires that jurisdiction over chemicals be given to the agency that can regulate the substances most effectively. OSHA would be responsible for asbestos because the most exposed citizens are workers. Where consumers are directly affected, the consumer safety commission would have jurisdiction.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

January 28, 1985

To: Health and Environmental Affairs Committee

Subject: State of Maryland proposal to legislate the prohibition of the sale of "brakes containing asbestos"

This morning, several Members called advising that Mr. Dairl Bragg, now with Motor and Equipment Manufacturers Association (MEMA), had called advising that the State of Maryland legislature was to hold a hearing on a bill which was to be introduced calling for the prohibition of the distribution, sale or offering for sale of "certain.....brakes containing asbestos."

I had been aware that Maryland was considering introduction of such legislation as a result of a phone conversation I had earlier this month with the State of Maryland Department of Health and Mental Hygiene. I had asked at that time that they send me a copy of the proposed legislation. Their letter with the copy of the proposed bill was received later this morning.

I am enclosing a copy of the proposed bill, as well as the letter received from that Department.

After being advised of the hearing scheduled for Tuesday January 29 in Annapolis, I called Dairl Bragg. He may be attending this hearing. I discussed the materials I had sent to Maryland's Department of Health and Mental Hygiene, who had been asked to give background to the Maryland Legislature concerning this bill. I discussed the differences in certain brake lining types (disc brake pads, drum brake linings and brake blocks) as regards progress with substitutes. I sent Mr. Bragg the same package I had sent the Maryland Department of Health earlier. This package was:

Natural Resources Defense Council (NRDC) Petition
Friction Materials Standards Institute Comments
Asbestos Information Association Comments

The foregoing is sent as a matter of information, and the Institute would welcome comments and suggestions as to a possible position.

E. W. Drislane
Executive Director

EWD/e

Copy: Officers and Board of Directors

State of Maryland

OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 • 383- 2759

TTY FOR DEAF: Balto. Area 383-7555
D.C. Metro 565-0451

Adele Wilzack, R.N., M.S., Secretary

William M. Eichbaum, Assistant Secretary

January 18, 1985

Ed Drislane, Executive Director
Frictin Material Standards Institute
E. 210; Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Thank you for the information on brake linings provided during our January 11, 1985 phone conversation. I greatly appreciate the follow-up information which came in today's mail. As promised, enclosed is a copy of a bill on the subject, currently before the Maryland Legislature.

Please call me at 383-2759, if I can be of assistance.

Sincerely,

James W Lewis

James W. Lewis
Industrial Hygienist
Division of Environmental
Disease Control

JWL:mm
Enclosures

H O U S E O F D E L E G A T E S

51r1214 No. 298 (PRE-FILED) 29

By: Delegate DiPietro
Requested: November 15, 1984
Introduced and read first time: January 9, 1985
Assigned to: Economic Matters

A BILL ENTITLED

AN ACT concerning

Asbestos - Automobile Brakes

FOR the purpose of prohibiting the distribution, sale, or offering for sale of certain motor vehicle, trailer, semitrailer, and pole trailer brakes containing asbestos; and requiring the Motor Vehicle Administrator to enforce the provisions of this Act.

BY adding to

Article - Transportation
Section 22-306(a) and (b)
Annotated Code of Maryland
(1984 Replacement Volume and 1984 Supplement)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article - Transportation

22-306.

(A) A PERSON MAY NOT DISTRIBUTE, HAVE FOR SALE, OFFER FOR SALE, OR SELL FOR USE ON OR AS PART OF THE EQUIPMENT OF A MOTOR VEHICLE, TRAILER, SEMITRAILER, OR POLE TRAILER ANY BRAKE THAT CONTAINS ASBESTOS.

(B) THE ADMINISTRATOR SHALL ENFORCE THIS SECTION.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July 1, 1985.

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.

JAN 28 1985

Hearing: House Office Building
Economic Matters Committee
Tuesday, January 29, 1985, 1:00 PM

Introduced by: Delegate Di Pietro

Bill House of Delgates No. 298

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

January 24, 1985

To: Health and Environmental Affairs Committee

Subject: Environmental Protection Agency (EPA) Response to Natural Resources Defense Council (NRDC) Petition to Prohibit the Use of Asbestos in Automotive Brake Linings

In late December we distributed copies of the EPA response to the NRDC petition. On December 20 we distributed copies of Mr. Ruckelshaus' response and on December 26 we sent copies of the response as it appeared in the Federal Register. I have now discussed the response with Mr. Riopelle, Chairman of the Health and Environmental Affairs Committee.

Your Chairman is asking if the Institute should take action on EPA's request for comments. As may be noted in the Federal Register notice, they are asking for written comments before March 18, 1985. The question is whether the Institute should comment further, and if so, to what areas should comments be directed?

1. Should the Institute comment on errors which are of a background nature? For example, it could be more clearly stated that disc brake linings are used on almost 100% of light to medium vehicles on an original equipment basis, and drum brake linings are only used on the fronts of older light to medium vehicles and on most rears.

2. Should we re-submit the comments made in the Institute letter of November 13, 1984 on the NRDC petition? Should these be re-submitted as written earlier?

3. In the earlier letter, we left openings for possible additional comments. Should the Institute present additional comments, and if so, what specific comments?

4. Should the Institute make essentially new or stronger comments on such subjects as the availability of substitutes and the need for such a prohibition. This would involve a new position paper.

5. Should the Institute address the subject of specifications on friction materials, covering certain performance criteria with which all manufacturers must comply. This question is posed because the search for replacement materials having the desirable characteristics of asbestos has, and will continue to be, a difficult task. Thus, would it be of value to relate this search to product specifications.

Please consider the EPA's response as it appeared in the Federal Register, and suggest what action, if any, the Institute should take.

E. W. Drislane
Executive Director

Copy: Officers & Board of Directors

ALLIED Automotive

Bendix Friction Materials Division
P.O. Box 238
Troy, NY 12181
Telephone (518) 273-6550

January 18, 1985

Mr. Edward Drislane
Friction Materials Standards
Institute, Inc.
East 210 Route 4
Paramus, New Jersey 07652

Dear Ed:

Per our phone conversation today, here is a draft of item No. 5 for the letter on EPA's response to the NRDC petition. If you agree, let's add it to the letter. If not, let me know - and I'll go over your head to Bruce.

> "No. 5 - Should the Institute address the subject of specifications on friction materials, covering certain performance criteria with which all manufacturers must comply. This question is posed because the search for replacement materials having the desirable characteristics of asbestos has, and will continue to be, a difficult task. Thus, would it be of value to relate this search to product specifications."

Regards,

John A. Riopelle
Director
International Technology

JAR:da

ID-R007

FEDERAL REGISTER NOTICE OF DECEMBER 19, 1984: EPA RESPONSE TO PETITION FILED BY NATURAL RESOURCES DEFENSE COUNCIL TO PROHIBIT THE USE OF ASBESTOS IN AUTOMOTIVE BRAKES

40 CFR Part 763

[OPTS-211015; TSH-FRL 2726-8]

Asbestos; Response to Citizens' Petition

AGENCY: Environmental Protection Agency (EPA).

ACTION: Response to Citizens' Petition.

SUMMARY: The Environmental Protection Agency (EPA) is granting a petition filed under section 21 of the Toxic Substances Control Act (TSCA) by the Natural Resources Defense Council, Inc., to prohibit the use of asbestos in automobile and truck brakes. EPA has commenced an appropriate proceeding to address the risks which may be posed by this use of asbestos.

DATE: Submit written comments on or before March 18, 1985.

ADDRESS: Submit written comments in triplicate identified by the document control number (OPTS-211015) to: TSCA Public Information Office (TS-793), Office of Toxic Substances, Environmental Protection Agency, Rm. E-107, 401 M. St., SW., Washington, D.C. 20460.

A copy of the petition and related information (with any confidential business information deleted) is located in: Room E-107, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

This material is available for viewing and copying from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M St., SW., Washington, D.C. 20460, Toll-free: (800-424-9065), In Washington, D.C.: (554-1404), Outside the USA: (Operator—202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Introduction

Section 21 of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2620, provides that any person may petition the Administrator of EPA to initiate a proceeding for the issuance, amendment, or repeal of a rule under various sections of the Act. EPA may hold a public hearing or may conduct an appropriate investigation to determine whether the petition should be granted. EPA must either grant or deny the petition within 90 days. If EPA grants the petition, EPA shall promptly commence an appropriate proceeding. If EPA denies the petition, the reasons for denial must be published in the Federal Register, and the petitioner may commence a civil action in a district court of the United States to compel EPA to initiate a rulemaking proceeding as requested in the petition. Any such civil action must be filed within 60 days after EPA's denial of the petition or, if EPA fails to grant or deny the petition within 90 days after the petition is filed, within 60 days following expiration of the 90-day response period.

II. Evaluation of the Petition

A. Introduction

On September 12, 1984, EPA received a petition from the Natural Resources Defense Council, Inc. (NRDC), requesting that EPA prohibit the further use of asbestos in automobile and truck brakes under section 6 of TSCA. The petition requested a prohibition of asbestos in both brakes for new cars and trucks and in replacement brakes for existing vehicles. The petition argued that the risks posed by asbestos in brakes are unreasonable and that economically and technically feasible substitutes are available.

In order to promulgate any rules under TSCA section 6, the Agency must consider a number of factors, including, among other things, the effects of a chemical substance on human health and the magnitude of exposure; the benefits of utilizing the substance; and the availability of substitutes for the use or uses of the substance being assessed. 15 U.S.C. 2605(c)(1). The Agency has conducted a review of the available information pertaining to the use of asbestos in brakes, including the information in NRDC's petition. A summary of that review, including an evaluation of the risks posed by this use and the availability of substitutes, is presented below.

B. Risk Presented by Asbestos

Asbestos is a demonstrated human carcinogen that causes lung cancer and mesothelioma (a cancer of the chest and abdominal linings), as well as other lung disorders. People are exposed to asbestos throughout the life cycle of the substance—when asbestos is mined, milled, processed, fabricated into industrial and consumer products, and when those products are used, repaired, and disposed of.

With regard to the use of asbestos in brakes, it has been estimated that about 2,750 people are potentially exposed during primary manufacturing of brake friction materials, and that about 550,000 people are potentially exposed to asbestos during servicing and repair of vehicle brakes (Ref. 6). For example, persons in brake service and repair shops typically are exposed to asbestos when dust is blown out of brake drums being replaced, when brake linings are roughened to increase friction properties, and when brake shoes are relined.

Use of asbestos in vehicle brakes may also result in increased asbestos fiber concentrations in the ambient air. For example, EPA has evidence that motor vehicle braking most likely contributes between 0.23 to 1.3 percent of the concentration of asbestos in the ambient air (Ref. 7). Both general population and workplace exposures to asbestos fibers from its use in brakes may result in an increased number of asbestos-related illnesses, including cancer.

C. Availability of Substitutes

The petitioner asserts that economically and technically feasible substitutes, most prominently semimetallic friction materials and aramid fibers, are available to replace asbestos in brakes. EPA has analyzed the availability of substitutes for many asbestos products, including brakes, and that analysis is summarized in Appendix A of the "Regulatory Impact Analysis of Controls on Asbestos Products" (Ref. 2), which is included in the public record established for NRDC's section 21 petition. EPA acknowledges that new substitutes for asbestos use in brakes are being developed and that EPA's analysis (summarized below) may not include recent developments.

1. *Heavy vehicle brake blocks.* Brake blocks are components of brakes that are riveted or bolted to the insides of brake shoes to provide protection against the heat and wear caused by braking. Heavy vehicle brake blocks are used on heavy duty trucks, buses, and other heavy duty vehicles. About 34 percent of all asbestos used in brakes is in this category of use. Asbestos heavy vehicle brake blocks account for about 99 percent of the market for heavy vehicle brake blocks.

Until recently, the only commercially available substitute for asbestos heavy vehicle brake blocks was a semimetallic brake block using brass and zinc chips in an organic binder. It is not considered as good as asbestos because it performs erratically at different temperatures. It is also considered inferior to the asbestos brake block in resisting wear and minimizing brake fade. Recently, aramid fiber products, such as Kevlar, have been introduced, but aramid fiber products are now more expensive than asbestos products, and there is not sufficient evidence to determine whether aramid fiber products will be as effective as asbestos in this application. Information suggests that such products may last longer than asbestos-based

products, but verification of this information as well as information on price and efficacy of the products are needed before EPA can determine whether continued use of asbestos in brake blocks presents an unreasonable risk.

2. *Light and medium vehicle drum brake linings.* Drum brake linings are made of friction materials which cover curved metal shoes in a drum brake. About 46 percent of all asbestos used in brakes is in this category of use. Light vehicle asbestos drum brake linings may be used in both the front and rear brakes of light and medium vehicles, primarily on the front wheels. However, most passenger vehicles still use drum brake linings on the rear wheels. At least 99 percent of drum brake linings are still asbestos.

Until recently the only substitutes for asbestos brake linings which appeared to have any potential were semimetallic brake linings. However, these products tend to perform erratically at different temperatures, fade, and produce more noise than asbestos-based linings. More recently, brake linings made with aramid fiber have been developed. However, these are more expensive than the asbestos product and there is not currently enough information available to judge the performance of aramid fiber brake linings. Furthermore, EPA's evidence indicates that large volume production of aramid fiber brakes may require substantial retooling by brake manufacturers. Therefore, aramid fiber brakes may not be available in substantial quantitites for several years.

3. *Heavy vehicle disc brake pads.* Disc brake pads are steel plates lined with friction materials which rub against a rotor. Heavy vehicles rarely use disc brakes. About 0.1 percent of all asbestos used in brakes is in this category of use.

Semimetallic disc brake pads are about 20 percent more expensive than the asbestos disc brake pads but they last about 30 percent longer. The semimetallics disc brake pads are not considered to be good general replacements for asbestos disc brake pads for heavy vehicles because semimetallics perform better than asbestos only in hostile, high-friction, high-heat environments.

4. *Light and medium vehicle disc brake pads.* These are the same as disc brake pads for heavy vehicles, except they are smaller. About 20 percent of all asbestos used in brakes is in this category of use. In the disc brake market, semimetallic brakes have already made larger inroads, and as in the drum brake linings market, aramid-based brakes are just beginning to be introduced. Approximately 50 percent of discs brakes in the original equipment market are asbestos and 50 percent are semimetallic. In the replacement brakes after-market approximately 70 percent of disc brakes are asbestos and 30 percent are semimetallic.

Semimetallic disc brakes cost approximately 3 times as much as the asbestos disc brake pads, but they last about 40 percent longer than the asbestos pads. Semimetallic disc brake pads cannot substitute for asbestos disc brake pads in every application because of inferior performance characteristics. EPA has information indicating that semimetallic disc brakes should be used only in cars with power brake systems because otherwise the semimetallic brakes may not provide enough stopping power. EPA also has information that the semimetallic brakes are slightly inferior because the user has to push harder on them before they are warmed up to get the same performance as with asbestos brakes.

EPA is aware that a good deal of product research is being done to develop effective substitutes for asbestos in brakes. EPA is seeking additional information on substitutes for asbestos in brakes.

III. Conclusion

EPA has decided to grant NRDC's petition because the Agency believes that the use of asbestos in brakes does present risks to human health. EPA is initiating a proceeding to gather information on the desirability and feasibility of reducing risks associated with the use of asbestos in brakes. EPA will analyze the exposure from uses of asbestos, the risk presented by those uses, and the substitutes for such uses. EPA will also gather information of the price, efficacy, and availability of substitutes for asbestos in brakes. After analysis of this information, EPA will determine what further action is appropriate to address the risks which may be posed by this use of asbestos.

Based on information reviewed to date, EPA is not prepared to make an unreasonable risk finding for an immediate ban of all uses of asbestos in brakes at this time. Effective substitutes may not be available for certain applications of asbestos in brakes and substitutes for other applications are not available in sufficient quantity because of limited production capacity. Retooling may be required to make substitutes available in large volumes.

The Agency invites the public to submit comments on issues relating to the petition. EPA is particularly interested in receiving information on both the current availability of substitutes for asbestos in brakes and on new substitute products that are currently being developed. The Agency has an ongoing workgroup, which will review these comments, will continue to investigate the availability of effective asbestos-free substitutes for use in vehicle brakes, and consider appropriate options to address the risk presented by asbestos in brakes.

IV. Record

EPA has established a record for information relating to the NRDC petition. The record includes information considered by EPA in developing this response and consists of the following categories of information:

(1) The NRDC petition.

(2) Appendix A of the "Regulatory Impact Analysis of Controls on Asbestos Products."

(3) Other information on substitutes for asbestos in brakes.

(4) Information received from the public concerning the petition.

(5) Memoranda summarizing meetings and telephone conversations with the public concerning the petition.

(6) Appendix J of the "Regulatory Impact Analysis of Controls on Asbestos Products."

(7) Appendix N of the "Regulatory Impact Analysis of Controls on Asbestos Products."

A public version of the record, without any confidential business information, is available to the public in the Office of Toxic Substances Public Information Office, from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays. The Public Information Office is located in Rm. E-107, 401 M St., SW., Washington, D.C.

Dated: December 14, 1984.

William D. Ruckelshaus,

Administrator.

[FR Doc. 84-33120 Filed 12-17-84; 1:14 pm]

BILLING CODE 6560-50-M

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

December 26, 1984

To: Health and Environmental Affairs Committee

Subject: EPA Response to NRDC Petition to Prohibit the Use of Asbestos in Automotive Brake Linings

On December 20, 1984 we distributed our BULLETIN NO. 813 which enclosed a copy of the response made by the Environmental Protection Agency (EPA) to the Natural Resources Defense Council (NRDC) on their petition asking EPA to prohibit the use of asbestos in automotive brake linings.

In that Bulletin we noted that we had not as yet received the copy of the text as it would appear in the FEDERAL REGISTER. It was printed in the FEDERAL REGISTER on December 19, 1984. A copy of that notice is enclosed.

While I have not made a word-for-word proofing of the texts, the FEDERAL REGISTER Notice appears identical to the earlier text except for the addition of the comment date (March 18, 1985) and re-numbering of major sections of the response.

This is sent to the Committee for its consideration.

E. W. Drislane
Executive Director

EWD/e

Copies:
Delegates and Alternates
IRC Committee

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

December 26, 1984

To: Health and Environmental Affairs Committee

Subject: EPA Response to NRDC Petition to Prohibit the Use of Asbestos in Automotive Brake Linings

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This is sent to the Committee for its consideration.

E. W. Drislane
Executive Director

EWD/e

Copies:
Delegates and Alternates
IRC Committee

FEDERAL REGISTER NOTICE OF DECEMBER 19, 1984: EPA RESPONSE TO PETITION FILED BY NATURAL RESOURCES DEFENSE COUNCIL TO PROHIBIT THE USE OF ASBESTOS IN AUTOMOTIVE BRAKES

40 CFR Part 763

[OPTS-211015; TSH-FRL 2726-8]

Asbestos; Response to Citizens' Petition

AGENCY: Environmental Protection Agency (EPA).

ACTION: Response to Citizens' Petition.

SUMMARY: The Environmental Protection Agency (EPA) is granting a petition filed under section 21 of the Toxic Substances Control Act (TSCA) by the Natural Resources Defense Council, Inc., to prohibit the use of asbestos in automobile and truck brakes. EPA has commenced an appropriate proceeding to address the risks which may be posed by this use of asbestos.

DATE: Submit written comments on or before March 18, 1985.

ADDRESS: Submit written comments in triplicate identified by the document control number (OPTS-211015) to: TSCA Public Information Office (TS-793), Office of Toxic Substances, Environmental Protection Agency, Rm. E-107, 401 M. St., SW., Washington, D.C. 20460.

A copy of the petition and related information (with any confidential business information deleted) is located in: Room E-107, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

This material is available for viewing and copying from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M St., SW., Washington, D.C. 20460, Toll-free: (800-424-9065), In Washington, D.C.: (554-1404), Outside the USA: (Operator—202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Introduction

Section 21 of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2620, provides that any person may petition the Administrator of EPA to initiate a proceeding for the issuance, amendment, or repeal of a rule under various sections of the Act. EPA may hold a public hearing or may conduct an appropriate investigation to determine whether the petition should be granted. EPA must either grant or deny the petition within 90 days. If EPA grants the petition, EPA shall promptly commence an appropriate proceeding. If EPA denies the petition, the reasons for denial must be published in the Federal Register, and the petitioner may commence a civil action in a district court of the United States to compel EPA to initiate a rulemaking proceeding as requested in the petition. Any such civil action must be filed within 60 days after EPA's denial of the petition or, if EPA fails to grant or deny the petition within 90 days after the petition is filed, within 60 days following expiration of the 90-day response period.

II. Evaluation of the Petition

A. Introduction

On September 12, 1984, EPA received a petition from the Natural Resources Defense Council, Inc. (NRDC), requesting that EPA prohibit the further use of asbestos in automobile and truck brakes under section 6 of TSCA. The petition requested a prohibition of asbestos in both brakes for new cars and trucks and in replacement brakes for existing vehicles. The petition argued that the risks posed by asbestos in brakes are unreasonable and that economically and technically feasible substitutes are available.

In order to promulgate any rules under TSCA section 6, the Agency must consider a number of factors, including, among other things, the effects of a chemical substance on human health and the magnitude of exposure; the benefits of utilizing the substance; and the availability of substitutes for the use or uses of the substance being assessed. 15 U.S.C. 2605(c)(1). The Agency has conducted a review of the available information pertaining to the use of asbestos in brakes, including the information in NRDC's petition. A summary of that review, including an evaluation of the risks posed by this use and the availability of substitutes, is presented below.

B. Risk Presented by Asbestos

Asbestos is a demonstrated human carcinogen that causes lung cancer and mesothelioma (a cancer of the chest and abdominal linings), as well as other lung disorders. People are exposed to asbestos throughout the life cycle of the substance—when asbestos is mined, milled, processed, fabricated into industrial and consumer products, and when those products are used, repaired, and disposed of.

With regard to the use of asbestos in brakes, it has been estimated that about 2,750 people are potentially exposed during primary manufacturing of brake friction materials, and that about 550,000 people are potentially exposed to asbestos during servicing and repair of vehicle brakes (Ref. 6). For example, persons in brake service and repair shops typically are exposed to asbestos when dust is blown out of brake drums being replaced, when brake linings are roughened to increase friction properties, and when brake shoes are relined.

Use of asbestos in vehicle brakes may also result in increased asbestos fiber concentrations in the ambient air. For example, EPA has evidence that motor vehicle braking most likely contributes between 0.23 to 1.3 percent of the concentration of asbestos in the ambient air (Ref. 7). Both general population and workplace exposures to asbestos fibers from its use in brakes may result in an increased number of asbestos-related illnesses, including cancer.

C. Availability of Substitutes

The petitioner asserts that economically and technically feasible substitutes, most prominently semimetallic friction materials and aramid fibers, are available to replace asbestos in brakes. EPA has analyzed the availability of substitutes for many asbestos products, including brakes, and that analysis is summarized in Appendix A of the "Regulatory Impact Analysis of Controls on Asbestos Products" (Ref. 2), which is included in the public record established for NRDC's section 21 petition. EPA acknowledges that new substitutes for asbestos use in brakes are being developed and that EPA's analysis (summarized below) may not include recent developments.

1. *Heavy vehicle brake blocks.* Brake blocks are components of brakes that are riveted or bolted to the insides of brake shoes to provide protection against the heat and wear caused by braking. Heavy vehicle brake blocks are used on heavy duty trucks, buses, and other heavy duty vehicles. About 34 percent of all asbestos used in brakes is in this category of use. Asbestos heavy vehicle brake blocks account for about 99 percent of the market for heavy vehicle brake blocks.

Until recently, the only commercially available substitute for asbestos heavy vehicle brake blocks was a semimetallic brake block using brass and zinc chips in an organic binder. It is not considered as good as asbestos because it performs erratically at different temperatures. It is also considered inferior to the asbestos brake block in resisting wear and minimizing brake fade. Recently, aramid fiber products, such as Kevlar, have been introduced, but aramid fiber products are now more expensive than asbestos products, and there is not sufficient evidence to determine whether aramid fiber products will be as effective as asbestos in this application. Information suggests that such products may last longer than asbestos-based

products, but verification of this information as well as information on price and efficacy of the products are needed before EPA can determine whether continued use of asbestos in brake blocks presents an unreasonable risk.

2. *Light and medium vehicle drum brake linings.* Drum brake linings are made of friction materials which cover curved metal shoes in a drum brake. About 46 percent of all asbestos used in brakes is in this category of use. Light vehicle asbestos drum brake linings may be used in both the front and rear brakes of light and medium vehicles, primarily on the front wheels. However, most passenger vehicles still use drum brake linings on the rear wheels. At least 99 percent of drum brake linings are still asbestos.

Until recently the only substitutes for asbestos brake linings which appeared to have any potential were semimetallic brake linings. However, these products tend to perform erratically at different temperatures, fade, and produce more noise than asbestos-based linings. More recently, brake linings made with aramid fiber have been developed. However, these are more expensive than the asbestos product and there is not currently enough information available to judge the performance of aramid fiber brake linings. Furthermore, EPA's evidence indicates that large volume production of aramid fiber brakes may require substantial retooling by brake manufacturers. Therefore, aramid fiber brakes may not be available in substantial quantitites for several years.

3. *Heavy vehicle disc brake pads.* Disc brake pads are steel plates lined with friction materials which rub against a rotor. Heavy vehicles rarely use disc brakes. About 0.1 percent of all asbestos used in brakes is in this category of use.

Semimetallic disc brake pads are about 20 percent more expensive than the asbestos disc brake pads but they last about 30 percent longer. The semimetallics disc brake pads are not considered to be good general replacements for asbestos disc brake pads for heavy vehicles because semimetallics perform better than asbestos only in hostile, high-friction, high-heat environments.

4. *Light and medium vehicle disc brake pads.* These are the same as disc brake pads for heavy vehicles, except they are smaller. About 20 percent of all asbestos used in brakes is in this category of use. In the disc brake market, semimetallic brakes have already made larger inroads, and as in the drum brake linings market, aramid-based brakes are just beginning to be introduced. Approximately 50 percent of discs brakes in the original equipment market are asbestos and 50 percent are semimetallic. In the replacement brakes after-market approximately 70 percent of disc brakes are asbestos and 30 percent are semimetallic.

Semimetallic disc brakes cost approximately 3 times as much as the asbestos disc brake pads, but they last about 40 percent longer than the asbestos pads. Semimetallic disc brake pads cannot substitute for asbestos disc brake pads in every application because of inferior performance characteristics. EPA has information indicating that semimetallic disc brakes should be used only in cars with power brake systems because otherwise the semimetallic brakes may not provide enough stopping power. EPA also has information that the semimetallic brakes are slightly inferior because the user has to push harder on them before they are warmed up to get the same performance as with asbestos brakes.

EPA is aware that a good deal of product research is being done to develop effective substitutes for asbestos in brakes. EPA is seeking additional information on substitutes for asbestos in brakes.

III. Conclusion

EPA has decided to grant NRDC's petition becuase the Agency believes that the use of asbestos in brakes does present risks to human health. EPA is initiating a proceeding to gather information on the desirability and feasibility of reducing risks associated with the use of asbestos in brakes. EPA will analyze the exposure from uses of asbestos, the risk presented by those uses, and the substitutes for such uses. EPA will also gather information of the price, efficacy, and availability of substitutes for asbestos in brakes. After analysis of this information, EPA will determine what further action is appropriate to address the risks which may be posed by this use of asbestos.

Based on information reviewed to date, EPA is not prepared to make an unreasonable risk finding for an immediate ban of all uses of asbestos in brakes at this time. Effective substitutes may not be available for certain applications of asbestos in brakes and substitutes for other applications are not available in sufficient quantity because of limited production capacity. Retooling may be required to make substitutes available in large volumes.

The Agency invites the public to submit comments on issues relating to the petition. EPA is particularly interested in receiving information on both the current availability of substitutes for asbestos in brakes and on new substitute products that are currently being developed. The Agency has an ongoing workgroup, which will review these comments, will continue to investigate the availability of effective asbestos-free substitutes for use in vehicle brakes, and consider appropriate options to address the risk presented by asbestos in brakes.

IV. Record

EPA has established a record for information relating to the NRDC petition. The record includes information considered by EPA in developing this response and consists of the following categories of information:

(1) The NRDC petition.

(2) Appendix A of the "Regulatory Impact Analysis of Controls on Asbestos Products."

(3) Other information on substitutes for asbestos in brakes.

(4) Information received from the public concerning the petition.

(5) Memoranda summarizing meetings and telephone conversations with the public concerning the petition.

(6) Appendix J of the "Regulatory Impact Analysis of Controls on Asbestos Products."

(7) Appendix N of the "Regulatory Impact Analysis of Controls on Asbestos Products."

A public version of the record, without any confidential business information, is available to the public in the Office of Toxic Substances Public Information Office, from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays. The Public Information Office is located in Rm. E-107, 401 M St., SW., Washington, D.C.

Dated: December 14, 1984.

William D. Ruckelshaus,

Administrator.

[FR Doc. 84-33120 Filed 12-17-84; 1:14 pm]

BILLING CODE 6560-50-M

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 8 1 3

December 20, 1984

ENVIRONMENTAL PROTECTION AGENCY (EPA) RESPONSE TO NATURAL RESOURCES DEFENSE COUNCIL (NRDC) PETITION TO PROHIBIT USE OF ASBESTOS IN AUTOMOTIVE BRAKE LININGS

In earlier bulletins, the Institute advised on the petition submitted by the NRDC asking a prohibition on the use of asbestos in automotive brake linings. Our last bulletin on this subject was that of November 13, 1984, where we enclosed a copy of the comments the Institute submitted relating to the NRDC petition.

The EPA has now replied to the NRDC petition. A copy of the response is enclosed. There are some gross errors in the EPA response, particularly in the comments on "Light and medium vehicle drum brake linings. There are other comments that are debatable. However, it is not necessary to critique this response.

While the EPA states that they are granting the petition, they will not now go to the rulemaking process. They will gather more information on the merits of the petition and in particular the availability of substitute materials. The EPA did not concur with NRDC that the continued use of asbestos brake linings "presents an unreasonable risk to health." Based on this action, it is unlikely that the EPA will propose a prohibition on the use of asbestos in friction materials in the near future.

In summary, the EPA action leaves this question about where it was before the NRDC filed its petition.

We have not as yet received the text of the EPA document that will appear in the FEDERAL REGISTER. The attached is for your information.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates
Regional Members (U.S. Dues)
HEA Committee
IRC Committee

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

November 13, 1984

United States - Environmental Protection Agency
TS - 794
401 M Street - SW
Washington, DC 20460

Subject: Natural Resources Defense Council Petition to Prohibit The Use of Asbestos in On-Highway Brakes

Gentlemen:

The Friction Materials Standards Institute, Inc. (FMSI) is a trade association of twenty-two friction materials manufacturers in the United States, with associate Members worldwide. The FMSI has read the petition submitted by the Natural Resources Defense Council (NRDC) to the Environmental Protection Agency (EPA) for the purpose of prohibiting "the use of asbestos in brakes for new cars and trucks and in replacement brakes in existing vehicles."

We wish to comment at this time on certain sections of the petition. While we are not now taking a position for or against said petition, we believe it is important to submit the following comments. Should it be deemed appropriate, these comments may be supplemented at a later date by a more in-depth critique. We will refer to the sections as headed in the NRDC petition.

I - INTRODUCTION

The stated reasons for the submission of the petition do not appear to be based upon irrefutable evidence. Whether or not the occupational asbestos

standards and/or the national emissions standards are insufficient to protect against unreasonable risk posed by asbestos in brakes is highly debatable. Further, the availability of economically and technologically feasible substitutes for asbestos is an issue in which the friction materials manufacturers are deeply involved. The identification of such substitutes is a major ongoing program with the manufacturers, and is not a completed program at this point in time.

II - JURISDICTION

The FMSI concerns relate to in-plant regulations versus control of general public exposure to asbestos dust. While one agency has proposed to tighten worker exposure to asbestos, another is being petitioned to eliminate asbestos in friction materials. The disparity between these two situations could well create implementation and economic problems for friction materials manufacturers. If asbestos is to be regulated out of friction materials the manufacturers should not be saddled, in the meantime, with compliance to new tighter regulations of asbestos in the workplace. The industry must know which direction regulatory activity will take.

III - DESCRIPTION OF PETITIONER

No comment.

IV - CONTINUED USE OF ASBESTOS...POSES AN UNREASONABLE RISK TO HEALTH

The FMSI does not necessarily agree with the credibility of the conclusions drawn from the evidence presented on friction materials in this section. Therefore, the FMSI reserves the right to comment in detail on

this section at some future date.

V - SUBSTITUTES

Sufficient data is not available at this time on the substitute materials to state that they do not pose a hazard in the workplace environment or to the general public. We wish to cite a recent study by the (Canadian) Royal Commission on Matters of Health and Safety Arising from Use of Asbestos in Ontario, and an earlier paper on Non-asbestos Related Malignant Mesothelioma.

These comments follow:

> ...If the production of substitute fibres in the future should increase the exposure of workers to long, thin, durable fibres of dimensions similar to those we have found hazardous for asbestos, we cannot be sure that serious health consequences would not result. In the face of the existing evidence, we believe it would be risky to allow the exposure of workers to respirable fibres longer than 5 microns, with small diameters, of any material, if those fibres are likely to be very durable in the lungs.[1]
>
> It has been generally accepted now that the fibre which is carcinogenic is a durable long and thin fibre, the diameter of less than 1.5 micron and length of more than 8 micron appearing critical. A number of fibrous materials other than asbestos can appear in this size and shape and indeed have thus been established as cause of mesothelioma in animals, such as: glass fibres, aluminum oxide, tremolite, attapulgite, dawsonite, silicon carbide and potassium titanate.[2]

---

[1]Report of the Royal Commission of Matters of Health and Safety Arising from the Use of Asbestos in Ontario (1984) Ontario Ministry of the Attorney General, Toronto

[2]Non-asbestos Related Malignant Mesothelioma - A Review of the Scientific and Medical Literature, Premysl V. Pelnar, MD, citing a paper by Stanton, Layard, Tegeris, Miller, May and Kent that appeared in the J. Natl. Cancer Inst., March 1977

The advantages of semi-metallic brake linings cited in Section V-A are not necessarily supported by test results generated by friction materials manufacturers. While certain of these claimed advantages may be true where the application generates high braking temperatures, they are not necessarily true for the average consumer.

Total endorsement of Section V-B of the petition is not appropriate, since friction materials manufacturers produce disc pads and drum segments for passenger cars and light to medium trucks, as well as brake blocks for heavy trucks. The claims made in Section V-B relate to brake blocks and cannot be endorsed for all product lines. Further, actual experience to date has proven that substantial processing modifications and new equipment are required for the asbestos substitute materials.

VI - A REQUIREMENT UNDER THE TOXIC SUBSTANCES CONTROL ACT...

No comment.

VII - CONCLUSION

No comment.

* * * * *

An immediate ban on the use of asbestos in passenger car and truck brakes cannot be supported because of the importance of safe brake systems on the nation's highways. Brake linings are a safety related product. We stress consideration of these facts:

1. There are legitimate questions on the health hazards of the fibrous substitutes suggested for asbestos replacement in friction materials.

2. There are programs in place by industry to eliminate the use of asbestos in friction materials, and these programs realistically address health, safety, economic, performance, timing, and materials availability issues.

3. The industry must be given time to develop a total line of products which will meet all highway safety requirements.

We believe the industry will accept a properly planned program pointed towards the eventual elimination of asbestos in its products. We urge that EPA study the suggested substitute materials as well as the feasibility, economic impact, realistic necessity - if it exists, and timing requirements appropriate to the elimination of asbestos in friction materials before responding to the petition or proposing a ban on the use of asbestos in friction materials.

Respectfully submitted,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

May 22, 1984

Docket Officer
Docket No. H-033C
Room S-6212
U. S. Department of Labor
Third Street and Constitution Avenue, NW
Washington, DC 20210

Subject: Comments on Proposed Rules for
Occupational Exposure To Asbestos

Gentlemen:

The Friction Materials Standards Institute is a trade association of manufacturers of friction materials--primarily brake linings and clutch facings. Its 21 United States Members account for about 90% of the United States production of friction materials. Our Members include those supplying original equipment materials to vehicle manufacturers as well as those participating in the automotive and industrial replacement markets. Some employ over 1,000 workers and others employ less than 50 workers.

The Institute asks that its comments concerning the feasibility of OSHA's proposals in the April 10, 1984 FEDERAL REGISTER be made part of the record and be considered in arriving at the final rules for occupational exposure to asbestos.

THE FRICTION MATERIALS PRODUCT

There are several aspects of the friction materials product that differ markedly from other asbestos products. This industry does not have the uniformity of formula which characterizes other asbestos products manufacturers. The larger friction materials manufacturers have in excess of 200 different formulations. While chrysotile is the predominant asbestos type, friction materials manufacturers work with several different fiber lengths as well as with non-asbestos fibers, and with many other non-fibrous ingredients. Exposure levels at a work station will vary from one day to the next based not on the lack of control but on the specific compound being processed at that operation and in other factory areas nearby, and on several other factors.

This industry is regulated, its products being one of the critical materials in hydraulic and air brake systems. Brake linings used in new vehicle brake systems must undergo lengthy qualification and certification tests by the producer and customer before release. Formula or significant processing

changes on released products cannot be put in effect without requalification and recertification. There is also considerable lead time involved when formula or processing change is planned. Change is not only time-consuming but it is costly. Development of a new formula along with the required testing for compliance with either DOT Standard 105 (Hydraulic Brake Systems) or 121 (Air Brake Systems) and moving the product into production can cost in excess of $250,000, and product or process modification costs may also approach this figure.

Some friction materials manufacturers have been evaluating substitutes for asbestos in automotive friction materials for over twenty years. Fibrous substitutes such as steel fiber, Kevlar and fiberglass have been added or substituted in some products and are handled in the same work areas as asbestos fibers. In certain cases use of the substitute fibers complicates measurement of the permissible exposure level due to inability to positively discriminate between fiber types. The industry advocates evolutionary progress in the development of products and processes remembering well the difficulties that developed when the Federal Government forced engineering change in the DOT 121 Air Brake Systems Standard which was subsequently invalidated by the courts.

Products using substitute materials have a material cost two to three times the cost of the asbestos based product being replaced. The cost increase is not limited to material costs. Most substitute materials require substantial capital equipment investment as well as additional labor cost. While there has been progress in the automotive on-highway market, the industrial off-highway market is almost an entirely different market. One cannot substitute certain fibers in friction products used in underground mining equipment for fear of a spark-induced explosion. The friction material used in overhead cranes handling hot metal or heavy loads may not accept a substitute material without adding another hazard. These off-highway friction products have requirements above and beyond normal highway usage and must be tailored to the product line.

The Institute does not have epidemiological data to challenge the evidence associating asbestos with lung cancer and mesothelioma. We do wish to point out, however, that the most complete study of the linkage of asbestos to cancer in a friction materials factory concluded that there was no higher incidence of lung cancer in the friction materials cohort so exposed, and that any incremental occurrences of mesothelioma were demonstrated in those exposed also to crocidolite asbestos. Chrysotile asbestos is the only asbestos type used in brake linings manufactured in the United States. We are aware of only one manufacturer using anthophyllite in a specific clutch application. To the best of our knowledge, crocidolite and amosite are not used by any United States manufacturer of friction materials. A most graphic illustration of the lack of lung cancer for the friction materials manufacturing cohort is shown in publication of the Berry-Newhouse paper in the British Journal of Industrial Medicine "Mortality of Workers Manufacturing Friction Materials Using Asbestos." (Refer to the Berry-Newhouse report cited as Ex. 84-021 in the Emergency Temporary Standard, page 51114 of November 4, 1983 FEDERAL REGISTER).

The Institute wishes to emphasize that not only is the friction materials product unique among those industries using asbestos, but the epidemiology in the friction materials factory manufacturing chrysotile-containing asbestos products may also be substantially different. With this background, we would like to address several areas in the proposal considering the differences we have indicated.

DEFINITIONS

The Institute concurs with the definition of "asbestos fiber" as "a particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1, and with a maximum diameter of 5 micrometers." The Institute supports addition of the adjective "asbestiform" in front of the nouns "tremolite, anthopyllite, and actinolite" in the current definition.

8 HOUR TIME WEIGHTED AVERAGE PERMISSIBLE EXPOSURE LIMIT (PEL)

With the knowledge gained from controlling asbestos levels for many years, and knowing the difficulties in the measurement technique, as well as the problems with compulsory respirator usage, the Institute believes that:

1. The 0.2 fiber per cc TWA PEL is not feasible.

2. The 0.5 fiber per TWA PEL is feasible in a friction materials factory.

Our position that the 0.2 fiber PEL is not feasible is based on exposure levels resulting from engineering and work practice controls without the respirator (and its 10X multiplier for assumed PEL reduction).

Further, the feasibility of the 0.5 fiber PEL is conditioned on the application of statistical analysis in the measurement of dust counts. Consideration must be given to the development of measurement capability and the associated tolerances, which require that many tests be run in the friction materials factory. Compliance would be aided by the use of control charts at questionable operations and agreement that the regulatory requirements would be met by statistical compliance. We believe that this 0.5 fiber PEL is more protective of the worker as it is based on engineering and work practice controls without the enforcement difficulties and the real-world non-compliance with compulsory respirator programs. It must be noted that these engineering and work practice controls will add significantly to the cost of manufacturing and it will take considerable time to put them in place--up to four years for the most difficult areas.

CEILING LIMIT PEL

We believe that a 5 fiber per cc Ceiling Limit PEL is attainable in the friction materials factory using a combination of engineering and work practice control and respiratory protection, assuming the 10X multiplier for exposure level reduction through use of the respirator.

ACTION LEVELS

The Institute recommends the following action levels to trigger the response:

Medical Surveillance - 0.1 fiber per cc TWA
Regulated Area - 0.5 fibers per cc TWA
Exposure Monitoring - 0.5 fibers per cc TWA
Hygiene Facilities - 0.5 fibers per cc TWA
Protective Clothing - 5.0 fibers per cc Ceiling

These recommendations are stronger than those in the existing standard. All except Protective Clothing are levels based on engineering and work practice controls, without the use of the respirator. Several of these activities are discussed in later sections. We emphasize that the 0.1 and the 0.5 fiber per cc action levels are without respirator usage and are based on using statistical process capability in the measurement of the counts. These levels are supported in this industry by considerations of variability in the work place and reliability of the measurement.

EXPOSURE MONITORING

It is recommended that the frequency of exposure monitoring be maintained at 6 months, with condition that where a count is statistically over the 0.5 fiber per cc action level that respirator usage be mandated in the area until that area is back in compliance with engineering and work practice controls.

REGULATED AREAS

Separate buildings and separate walled areas are not the rule in friction materials factories. The operations change as product demand changes. Signs designating certain areas as Regulated Areas and stating that unauthorized personnel should not be in these areas are practical and enforceable if the suggested action level of 0.5 fibers per cc is adopted. This will allow personnel at other operations to move to and from their work stations without impractical barriers or enforcement techniques. Provision for movement of these other employees through these areas must be considered. In most cases this movement would not add more than 10 minutes exposure during the typical 8 hour work day.

METHODS OF COMPLIANCE

As stated earlier, the Institute believes that 0.5 fiber per cc TWA PEL is feasible in the friction materials work place with engineering and work practice controls without the use of the respirator. The Institute believes that the respirators should not be substituted for engineering controls and work practices because mandatory respirator programs are difficult to enforce and less protective of the employee because of employee opposition to the respirator. The respirator is called for where certain work station counts exceed the PEL until engineering and work practice controls can bring those areas back into compliance.

PROTECTIVE CLOTHING

The Institute advocates that the rules provide for employer provision of protective clothing to the employee at no cost where the work place exposure is above the 5 fiber per cc Ceiling PEL. This provision of protective clothing would include laundering the clothing and/or the use of disposable protective clothing.

MEDICAL SURVEILLANCE

Our industry is concerned with the health of its employees. The Institute generally finds no difficulty with the current or proposed rules for medical surveillance, believing that surveillance should be triggered at the 0.1 fiber per cc TWA level. We claim no expertise on the need for additional tests.

METHODS OF MEASUREMENT

We have a major concern where the permissible levels and action levels are being reduced below 1.0 fiber per cc TWA. First, the use of statistical process capability must be permitted for the measurement of dust counts if OSHA moves to the 0.5 fiber per cc TWA PEL. We disagree that phase contrast microscopy is a feasible and effective method for measuring airborne asbestos fibers to determine compliance at levels lower than 0.5 fiber per cc. We wish to emphasize that this industry has an additional problem due to its use of other fibers and the resulting fiber identification questions during the dust count. Any so-called improvement in the technique will have to be evaluated in the real world over a period of time. We object to the costs involved in the idea of a quarterly "asbestos counting workshop" for all counters. The variances in counts have been exhibited several times in certain "round-robin" count comparisons over the past several years. We object to the lowering of the PEL below 0.5 fiber per cc if that lowering is in any way dependent on new NIOSH or other counting procedures which have not been proven in a real world environment.

HYGIENE FACILITIES

A reasonable improvement in the hygiene facilities would be the addition of showering facilities. This added to the two locker provision for employees in the change room should be a significant step in reducing the movement of asbestos from the work place. Separate change room facilities for clean clothes and dirty clothes would be unwarranted costly additions to the rules. The reduced PEL and shower provisions will greatly enhance the cleanliness of the single change room.

EFFECTIVE DATE

The phase-in of the engineering and work practice controls necessary to achieve the lower PEL is not a short term move. Our Industry will face unique problems with its multiplicity of formulations and the on-going search for reductions in asbestos content in the product. Product and process changes as well as training and preventive maintenance programs will be

necessary in the friction materials industry. We have referred to time problems for change earlier. For the conventional automotive and on-highway friction products we believe the changes can be phased in as follows:

1. Reduction to a 1.0 fiber per cc TWA PEL at two years from adoption of new rules.

2. Reduction to a 0.5 fiber per cc TWA PEL at four years from adoption of new rules.

3. Reduction to the 5.0 fiber per cc Ceiling PEL at four years from adoption of new rules.

For the non-automotive friction material product, it is recommended that there be no intermediate reduction to the 1.0 fiber per cc TWA PEL, but that the rules establish an effective date of 4 years from adoption of new rules for the final TWA and Ceiling PEL's.

Respectfully Submitted,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

May 4, 1984

To: Health and Environmental Affairs Committee

Subject: Draft Response to OSHA Proposals on Occupational Exposure to Asbestos

Our usual procedure for preparing responses to Government Agencies has been to outline a draft at a meeting, as we did on May 1. Then I usually prepare a draft for the Chairman to correct as he feels proper. This is to avoid trying to have Committee Members all re-write a draft that would take too long to reconcile. We usually operate under short time frames for comments, and in this case the comments are due by May 25, 1984.

Mr. Riopelle, Chairman, will be gone next week to South America and will not be able to review the draft comments until his return. We discussed this and it was decided to send all Committee Members a copy of this preliminary draft. I expect the single-spaced letter to take 4 or 5 pages.

This is to solicit input in two areas: (1) Is there something in the draft that is incorrect? (2) Do you now take strong disagreement with a position taken in the comments? If you have any input on these two items, please give me a call by Thursday, May 10 so that I can organize input for Mr. Riopelle.

E. W. Drislane
Executive Director

EWD/dr

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

May 4, 1984

Mr. John Riopelle
Bendix Corporation
Friction Materials Division
P. O. Box 238
Troy, NY 12181

Dear John:

Enclosed is the initial draft of a response to OSHA per our Meeting of May 1, 1984.

This is, of course, recast from the meeting. Please review it closely particularly the wording on statistical control for the counts. Also, check it to be sure this is what the Committee said. I may have taken some notes that were statements but not the conclusions of the Committee.

The report is double spaced to aid in correction. In other words, tear it apart as you see fit.

In the meanwhile, based on your trip to Brazil giving us a few more days, I am sending copies to the Committee for their specific input where they see: (1) a mistake on my part, or (2) substantial disagreement with a position taken in the comments. I would hope to have any such Committee comment ready for you by Monday, May 14.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/dr
Enc.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 9 3

April 17, 1984

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
PROPOSALS ON OCCUPATIONAL EXPOSURE TO ASBESTOS

The April 10, 1984 Notice on OSHA's proposals for occupational exposure to asbestos are enclosed with the Delegate's, the Committee's and List B copies. Single copies will be sent to other Members on request. This notice proposes two alternative permissible exposure levels: 0.2 fibers per cc or 0.5 fibers per cc.

In addition, OSHA asks for comments on certain of their proposed changes as well as for comments which might suggest changes. Among the areas addressed are:

1. Definition of Asbestos
2. Changes in medical surveillance
3. Reliability of measuring asbestos concentrations at these lower exposure limits
4. Methods for compliance beyond engineering and work practice controls
5. Proposals for exposure monitoring
6. Provisions for restricted areas
7. Cost Effectiveness of controls

In addition, it would appear that OSHA would welcome comments or suggestions on special areas of concern to the friction materials business, both at the manufacturing area and at rebuilders, brake repair shops and the like.

The Institute's Health and Environmental Affairs Committee will be meeting shortly to consider an Institute response.

Those wishing to make a direct response may do so, and the addresses for comments are shown on the first page of the notice.

E.W. Drislane
Executive Director

Copies:
Delegates and Alternates
Health and Environmental Affairs Committee
Active Members - List B

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

April 10, 1984

To: Health and Environmental Affairs Committee

Subject: OSHA Proposals on the Asbestos Standard

This morning's papers reported that OSHA had proposed a reduction in the permissible exposure level (PEL) for asbestos in the work place. The paper states that the PEL would be one quarter of that now permitted. However, the article further states that the standard may be lowered to either 0.5 or 0.2 fibers per cc from the current 2 fibers per cc.

I have not as yet seen the FEDERAL REGISTER notice. I hope to have a copy of the notice tomorrow. As soon as I have a copy I will forward it on to the Committee.

In the meanwhile, I called Mr. John Riopelle, Chairman of the Committee to plan a Committee Meeting. Mr. Riopelle is out of town and will not be back in his Office until Monday, April 16. I will contact him at that time and attempt to arrange a Committee Meeting.

The foregoing is for your information.

E. W. Drislane
Executive Director

Enclose:
Copy of BULLETIN NO. 792

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 9 2

April 10, 1984

FEDERAL REGULATORY ACTIVITY CONCERNING ASBESTOS

This is to advise that Federal Regulatory Agencies took action on certain asbestos related regulations this week. The action by the Occupational Safety and Health Administration (OSHA) may have a profound effect on the friction products industry. The other, by the Environmental Protection Agency (EPA) has little impact on our industry, it being more the concern of the Construction Industry.

OSHA PROPOSALS FOR A PERMANENT ASBESTOS STANDARD

These proposals have been forthcoming for some period of time. They were apparently delayed during the Court action on OSHA's November 1983 invoking of an Emergency Temporary Standard (ETS). This was the standard, that among other things, dropped the permissible exposure level (PEL) to 0.5 fibers per cc time weighted average(TWA). The ETS was overturned by the Courts in March 1984.

I have not as yet received the full content of the propsals on the asbestos standard. When they are received, copies will be sent to Delegates, the Health and Environmental Affairs Committee, and certain other parties that have asked for this information. Others who wish copies should write the Institute Office.

It is expected that the Institute's Health and Environmental Affairs Committee (HEAC) will meet shortly to discuss any Institute comments on these proposals.

EPA NATIONAL EMISSION STANDARDS FOR ASBESTOS

The EPA published these final regulations on Thursday, April 5, 1984.

These regulations essentially reinstated work practices standards for working with asbestos in the construction industry. These had been invalidated by the Courts some years ago but legislation since that time permitted reinstatement of such regulations. They concern roadway surfacing, building demolition and the handling of loose asbestos during demolition. While we have copies of the FEDERAL REGISTER concerning this action, copies will only be sent on request.

E. W. Drislane
Executive Director

Copies:
Delegates and Alternates
H.E.A. Committee

NY TIMES - APRIL 10, 1984 - OSHA PROPOSALS FOR PERMANENT ASBESTOS STANDARD

U.S. PROPOSES CUT IN ASBESTOS LIMIT

Agency's Suggestion Would Make the Workplace Safer for 375,000 in Industry

By BEN A. FRANKLIN
Special to The New York Times

WASHINGTON, April 9 — The Reagan Administration today proposed a reduction in the amount of asbestos permitted in workplaces to one-quarter of the current limit.

The proposal by the Labor Department's Occupational Safety and Health Administration, which is to be published Tuesday in the Federal Register, would affect 375,000 industrial workers.

It would cut the permissible exposure level from 2 fibers of asbestos for each cubic centimeter of workplace air, which has been the Federal standard since 1976, to either 0.5 or 0.2 fibers for a cubic centimeter.

The final choice between the two levels, among other options of a highly technical nature, are to be made later this year after a 60-day period in which the safety agency will receive written comments and hold a public hearing on all aspects of the revised asbestos regulations.

The Standards and Deaths

After a working lifetime of exposure, the safety agency said, the current standard would result in 64 more cancer deaths per 1,000 workers than would occur among a 1,000 people not exposed to asbestos. The standard of 0.5 fibers per cubic centimeter would result in 17 additional cancer deaths for 1,000 workers, the agency said, and there would be 7 more cancer deaths for 1,000 workers at the level of 0.2 fibers per cubic centimeter.

The formal publication of the asbestos proposal comes a week after the resignation of Thorne G. Auchter as the Administrator of the agency. Mr. Auchter was a Reagan Administration appointee who was frequently accused by labor unions of "gutting" occupational health and safety enforcement. Last November Mr. Auchter tried to put into effect the 0.5-fiber standard as an emergency regulation, but the asbestos industry sued immediately to block it.

The emergency regulation was overturned on March 7 by the United States Court of Appeals for the Fifth Circuit. The court questioned the Government's data submitted to back up its claim.

Asked today for his view of the safety agency's new proposal for a permanent standard as low as 0.2 fibers a cubic centimeter, B. J. Pigg, the head of the Asbestos Information Association, the industry group which sued to block the emergency rule, said: "We have no plans for further litigation."

'Impossible to Meet'

But at the safety agency's regulatory hearing set for June 12 he said the association would oppose a standard of 0.2 fibers as "impossible to meet."

"The industry will oppose putting its people in respirators eight hours a day," Mr. Pigg said.

Respirators, or face masks containing air filters that are hot and cumbersome and are never popular with workers, are among the methods available to limit the inhalation of asbestos fibers. Other methods include forced ventilation and limiting the time spent in the work place.

More than a score of unions belonging to the American Federation of Labor and Congress of Industrial Organizations have pressed OSHA to lower the asbestos standard to 0.1 fibers a cubic centimeter. Kevin Foley, assistant director for health and safety of the federation's building trades department, said, "We would be very happy with the level of 0.2 fibers, but we are still saying we want 0.1."

He cited studies by the Federal safety agency that showed that even at the 0.1-fiber exposure level there would be three excess cancer deaths for 1,000 workers.

Rise in Pressure for Revision

Pressures to revise the asbestos exposure standard began to rise in the 1970's when thousands of World War II shipyard workers or their survivors successfully brought suits against Johns-Mansville Inc., a major asbestos supplier, for long-delayed occupational illnesses and cancer deaths. The parent concern, the Manville Corporation, went into bankruptcy to avoid the full brunt of hundreds of millions of dollars in damage claims.

Federal studies of the asbestos work force, however, have found that thousands of other groups of workers were even more highly exposed. According to the safety agency, those most at risk, that is exposed to as many as 20 fibers of asbestos a cubic centimeter of air, are 13,000 building demolition and dry-wall removal workers.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 9 2

April 10, 1984

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E. W. Drislane
Executive Director

Copies:
Delegates and Alternates
H.E.A. Committee

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FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 8 7

March 8, 1984

THE OSHA STANDARD FOR ASBESTOS EXPOSURE

This is to update the Membership on the status of OSHA activity relative to the asbestos standard.

Emergency Temporary Standard (ETS) for Asbestos Exposure

On March 7, 1984 the Fifth Circuit Court acted in favor of the Asbestos Information Association (AIA) petition for review of OSHA's ETS on asbestos exposure. The Court voted unanimously to vacate the ETS. As of this decision, the Emergency Temporary Standard is vacated.

OSHA Proposal for a Permanent Standard for Asbestos Exposure

We had been expecting the OSHA notice of proposed rulemaking for revision of the permanent standard, and that such notice would have been published by this time.

The Court decision noted above may impact proposals in the permanent standard. Further, there has been some interchange between OSHA and the Office of Management and Budget (OMB) who must review regulatory proposals of this type. At this time, it appears that OSHA proposals on the permanent standard will not be published until late March or early April.

* * * * *

The foregoing is sent the Membership as a matter of information.

E. W. Drislane
Executive Director

Distribution:
Delegates and Alternates
Regional Members
HEA Committee
Active Members - List B

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

February 15, 1984

To: Health and Environmental Affairs Committee

Subject: Occupational Safety and Health Administration (OSHA) Draft Report on the Asbestos Standard Prepared For An OSHA Advisory Committee On Construction Safety and Health

We are enclosing a draft copy of a document prepared by OSHA which is marked on each page: "This draft is not final and bears no official endorsement. It should not be reproduced...." In addition, we are enclosing a document by the National Institute of Occupational Safety and Health (NIOSH) on a revised method for counting asbestos fibers. I've attached a Table of Contents for the draft OSHA document. Please note that I have not included pages 56-78 of that document, as they apply to the Construction Industry. Except for these pages, the document is complete.

These papers relate to the comments that the Institute may make once the Notice of Proposed Rulemaking on the asbestos standard is released in the Federal Register. These may help Committee Members in organizing their comments for any near-term meeting of the Committee.

Major items of concern and possible comment could be:

1. The feasibility of a 0.5 fiber per cc standard.

2. The feasibility of reducing the ceiling (peak) PEL from 10 fibers per cc to possibly 3 fibers per cc.

3. An action level of 0.2 fibers per cc (rather than 2 fibers per cc) to trigger certain control techniques.

4. The reliability of fiber counts in the 0.1 to 1.0 fiber per cc range with optical microscopy.

5. Tighter rules on regulated areas.

6. Respirator use as a control technique.

7. Changes in protective clothing, medical surveillance, hygiene facilities, signs and labeling, and recordkeeping.

These documents are sent for your review at this time. When the notice is published in the Federal Register, I expect to get back to you on a Committee Meeting to prepare comments.

E. W. Drislane
Executive Director

EWD/dr
Enc.

THIS DRAFT IS NOT FINAL AND BEARS NO OFFICIAL ENDORSEMENT. IT SHOULD NOT BE REPRODUCED NOT REPORTED UPON AS OFFICIAL OSHA POLICY.

TABLE OF CONTENTS

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

February 10, 1984

To: Health and Environmental Affairs Committee

Subject: Occupational Safety and Health Administration (OSHA) proposals on the asbestos standard

Enclosed is a copy of the Asbestos Information Association (AIA) notice concerning OSHA's Advisory Committee on Construction Safety and Health comments on their draft proposal on asbestos. This Committee listed certain issues which OSHA should solicit comments on. The AIA notice covers the issues.

As of now, it appears that OSHA should be issuing its proposal for rulemaking no earlier than March 1, 1984. When the proposal appears in the Federal Register, I would hope to have copies off to the Committee. At that time, Mr. Riopelle, Chairman, may call a meeting of the Committee so that an Institute response can be prepared.

In the meanwhile, the court stay on the Emergency Temporary Standard (ETS) is still in effect. There still have not been any rulings issued as a result of the January 12 hearing.

The foregoing is sent as a matter of information.

E. W. Drislane
Executive Director

EWD/e

AIA NORTH AMERICA

NEWS & NOTES

January 31, 1984

CONSTRUCTION ADVISORY COMMITTEE REVIEWS DRAFT OSHA PROPOSAL

On Jan. 11, OSHA's Advisory Committee on Construction Safety and Health met in Washington, DC to review a draft proposal on asbestos. Draft is to be basis of final, permanent asbestos standard that OSHA is required by law to have in place within six months of publication of its emergency temporary standard (ETS). ETS appeared in Federal Register of Nov. 4, but is presently stayed by order of 5th Circuit U.S. Court of Appeals. A hearing on merits of ETS action took place before court on Jan. 12, but as of yet, no ruling has been issued.

Draft proposal consists of 84 pages of prefatory discussion and three pages of regulatory text. Regulatory text is identical to wording of ETS. However, prefatory discussion includes list of 19 major issues upon which OSHA will solicit comments in proceedings for promulgation of final standard. These issues, which also formed basis of Advisory Committee discussion, give a good indication of agency's areas of concern, and are as follows:

1. What exposure limits would provide protection of employees against known and suspected workplace hazards of asbestos and what feasibility limitations exist in setting any given limit.

2. Whether the permissible ceiling limit should be reduced and, if so, what the revised limit should be. What feasibility limitations exist.

3. To what extent, if any, should the standard be modified for workplaces which are of a non-fixed nature or otherwise engage a highly transient workforce, e.g., the construction industry.

4. Whether the changes in the definitions of "asbestos" and "asbestos fiber" would clarify the standard's intended scope, and properly relate to known or suspected workplace hazards; whether specifying the mineralogic

definition of asbestos, such as using the term "tremolite asbestos" rather than the current "tremolite," would better define the health hazard.

5. Whether an action-level below the PEL should trigger certain requirements and, if so, which requirements, and what level(s):

6. Whether OSHA should modify the existing medical surveillance provisions (29 CFR 1910.1001 (j)) to change the frequency of exams, their content, or otherwise.

7. Whether an expanded medical removal program should be provided where, as a result of the medical surveillance program, it is determined that an employee is at an increased risk of material impairment of health from further exposure to asbestos.

8. Whether and under what circumstances and conditions it is feasible to reliably measure asbestos concentrations at levels of 0.1 f/cc, 0.2 f/cc and 0.5 f/cc.

9. Whether the evidence cited by OSHA associating asbestos exposure with the following health effects is complete and whether OSHA's Assessment is scientifically valid:

   a. Lung Cancer
   b. Mesothelioma
   c. Gastrointestinal Cancer
   d. Asbestosis
   e. Other Malignant and Nonmalignant Diseases

10. Whether a linear model should be used to extrapolate the risks of certified disabling asbestosis from lifetime exposure levels below 0.5 f/cc: should oHSA quantify risks for other stages of asbestosis and if so, how.

11. Whether OSHA's analysis of the evidence for carcinogenicity and toxicity differentials by asbestos fiber types is appropriate or whether regulatory distinctions should be made for different asbestos fiber types.

12. Whether OSHA should permit any method of compliance to reach the new permissible exposure limits after 2 f/cc has been achieved by use of engineering controls or whether it should require the use of engineering and work practice controls down to the PEL established in the final standard.

13. Whether proposed procedures for initial and subsequent exposure monitoring are adequate to reliably determine employee exposure to asbestos.

14. Whether provisions for regulated areas are reasonably necessary and appropriate for all covered industries.

15. Whether provisions for hygiene facilities are reasonably necessary and appropriate for all covered industries.

16. Whether the standard should have a delayed effective date for any industry sector and, if so, the extent to which a phased schedule for compliance would be appropriate.

17. What are the environmental impacts of the proposal.

18. Whether the provisions of the proposed standard are cost-effective and, if not, how can they be made cost-effective.

19. Whether OSHA should develop appendices, as it has with other health standards, that give appropriate information concerning the health hazards arising from human exposure to asbestos, substance technical information and medical surveillance guidelines.

Before discussing these issues, Advisory Committee agreed on some preliminary points. These included making no distinctions as to different kinds of asbestos fibers in final standard, and passing a resolution that "OSHA need proceed to immediately develop a separate and different Asbestos Standard for the construction industry."

Publication of proposal in Federal Register is expected by mid-February, but may slip some to a later date.

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

November 15, 1983

Mr. John Riopelle
Bendix Corporation
Friction Materials Division
P.O. Box 238
Troy, NY 12181

Dear Mr. Riopelle:

After our phone conversation yesterday, I discussed the makeup of the Institute's Health and Environmental Affairs Committee, with Mr. Bob Nelson, President of the Institute.

Mr. Nelson has asked me to extend you an invitation to serve as Chairman of the Health and Environmental Affairs Committee. This Committee has representation from the following Members of the Institute: Abex Corporation, Bendix Corporation, Carlisle Corporation, Nuturn Corporation, Raymark Corporation and Friction Division Products, Inc. (formerly Thiokol).

To familiarize you with some of the work of the Committee I am enclosing the following:

1. Charter of the Health and Environemtnal Affairs Committee
2. Minutes of October 25, 1979 Committee meeting where the "Purpose, Scope and Name of Committee" were discussed.
3. Copy of "Friction Materials Work Practices Guide" published in 1978 - a work of the Committee
4. A one-page insert for our catalogs entitled "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing," a work of the Committee

Please let me know if you will be able to serve as Chairman of this Committee. If you have any questions, please give me a call.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

FRICTION MATERIALS STANDARDS INSTITUTE

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

CHARTER

I. General Responsibility:

Responsible for the monitoring of existing and proposed worldwide Federal, State and Provincial legislation, regulations and literature on safety, health and environmental matters affecting members of the Friction Materials' Standards Institute and the proposal of Institute positions on these matters.

II. Specific Responsibilities:

- Develop action plans and position papers on Safety, Health and Environmental Protection matters for approval and direction of the FMSI Board of Directors.
- Provide direct coordination with the Asbestos Information Association Committees of concern to FMSI.
- Develop and administer a continuing education program for the members of the Institute.
- Monitor the membership's experience with meeting regulatory requirements in order to provide technical assistance.
- Establish and maintain a working relationship with Federal, State, Trade and other agencies and organizations.

Approved by the Board of Directors at February 25, 1980 Meeting.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 7 9

November 9, 1983

ASBESTOS INFORMATION ASSOCIATION (AIA) PETITION FOR REVIEW OF OSHA'S EMERGENCY TEMPORARY STANDARD FOR ASBESTOS EXPOSURE

Mr. Bob Pigg of the Asbestos Information Association (AIA) advised that his association had filed a petition with the U. S. Court of Appeals for the Fifth Circuit to review OSHA's Emergency Temporary Standard (ETS) for asbestos exposure in the work place. The Fifth Circuit Court is New Orleans. Mr. Pigg is asking for support from Members of this Institute as well as his association. I am enclosing a copy of Mr. Pigg's cover letter with all copies of this bulletin, but am distributing the Kirkland & Ellis letter and sample affidavit to one person in each member company only. For your company, the Kirkland & Ellis letter and sample affidavit are being sent to:

The materials sent the Institute included a copy of the FEDERAL REGISTER notice of November 4, 1983, which was distributed to our Membership with BULLETIN NO. 778 of November 8, 1983. The other enclosures were:

1. Memorandum from Mr. B. J. Pigg addressed to Members, "OSHA Emergency Temporary Standard on Asbestos" dated November 4, 1983.

2. Letter from Kirkland & Ellis, AIA's Attorneys, addressed to AIA/NA Members, dated November 4, 1983.

3. Sample Affidavits to be filed with the Court on worker exposures, distribution of asbestos products, size of this asbestos product market, secondary fabrication of the product and impact of the ETS on a company.

Any input or completed affidavits should be sent direct to Kirkland & Ellis in care of either Mr. Tim Hardy or Art Sampson.

The Institute has not taken any position on this ETS, but we are sending this information to the Membership should they wish to support the AIA/NA at this time. From the Kirkland & Ellis letter, they urge quick action on participation in this information gathering.

E. W. Drislane
Executive Director

EWD/dr
Enc.

Distribution:
Delegates & Alternates
Active Members - List B
H.E.A. Committee

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 7 8

November 8, 1983

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) ISSUES EMERGENCY TEMPORARY STANDARD (ETS) REDUCING PERMISSIBLE EXPOSURE LEVEL (PEL) FOR ASBESTOS

OSHA issued an ETS on the permissible workplace exposure level for asbestos on Friday, November 4, 1983. Articles in the WALL STREET JOURNAL and the NEW YORK TIMES advised in their November 3 editions on OSHA plans. Enclosed with this bulletin is a copy of the NEW YORK TIMES article as well as a digested copy of the notice as it appeared in the FEDERAL REGISTER.

The FEDERAL REGISTER copy includes the specifics on this emergency standard, but we have not included 44 pages on medical, epidemiological and statistical studies cited by OSHA in support of the emergency standard. The sections not included are those cited below, with the respective page numbers:

III	OSHA Rationale for the ETS	51088
	A Grave Danger	51088-51091
	B Need for an ETS	51091-51099
IV	Occupational Health Data	51099-51122
V	Quantitative Risk Analysis	51122-51132

The most important parts of this notice are those indicating the amendment of Section 1910-1001 of Part 1910 of Title 29 of the CFR, as written on pages 51139-51140 of this notice.

In summary, OSHA is reducing the 8 hour TWA PEL for asbestos from 2 fibers per cc. to 0.5 fibers per cc. This standard is effective with publication in the FEDERAL REGISTER on November 4, 1983. In addition, in no more than thirty days from November 4, employers must institute training programs for all employees exposed to concentrations in excess of the 0.5 fiber limit. Compliance can be achieved by any feasible combination of controls, work practices and personal protection equipment. OSHA also indicated required respiratory protection for certain concentration levels.

An ETS is limited to six months, and this notice requests comments on whether the ETS provisions should become permanent revisions to the asbestos standard. OSHA notes that it will soon issue a separate notice of proposed rulemaking concerning the permanent standard.

There is an industry petition for review of this ETS in the Courts, but no one can now predict the outcome of legal challenges to this action. The foregoing is for your information.

EWD/dr
Enc.

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H.E.A. Committee

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

November 8, 1983

To: Officers and Board of Directors
Health and Environmental Affairs Committee

Subject: OSHA's Emergency Temporary Standard (ETS) on Permissible Exposure Levels, and the Restructuring of the Health and Environmental Affairs Committee

Concurrent with this memorandum, the Institute Membership is being sent a copy of our BULLETIN NO. 778, which covers OSHA's Emergency Temporary Standard reducing the 8 hour time weighted average (TWA) permissible exposure level (PEL) for asbestos from 2 fibers per cc to 0.5 fibers per cc. That bulletin, along with a copy of the OSHA notice as it appeared in the FEDERAL REGISTER covers details of this ETS.

While this OSHA move is not unexpected, the Institute first learned of the ETS in the NEW YORK TIMES on Thursday, November 3, 1983. The Institute would ordinarily refer an action of this significance to our Health and Environmental Affairs Committee for possible action or comment.

However, on Wednesday, November 2, 1983, Mr. Jim Armstrong of Bendix, who has chaired this Committee for the last several years, called to advise that as of January 1, 1984, he would no longer be with the Bendix Corporation. I am enclosing a copy of Mr. Armstrong's letter of October 28, which arrived here after our phone conversation.

The timing of this OSHA action and Mr. Armstrong's resignation was referred to Mr. Nelson, President of the Institute. I have contacted others with the intent of installing a new Chairman, but we cannot take any action on this activity until the Committee is reorganized.

As the OSHA action is an Emergency Temporary Standard, it was effective on November 4. There is an industry petition for review in the Courts. Also, as OSHA intends to publish a notice on amendment of the permanent standard, Institute action may be taken after that notice. It is likely that a meeting of the Health and Environmental Affairs Committee will be called after OSHA's notice on proposed rulemaking is published.

The foregoing is for your information.

E. W. Drislane
Executive Director

EWD/dr
Enc.

Federal Register

Friday
November 4, 1983

Part VII

Department of Labo

Occupational Safety and Health Administration

Occupational Exposure to Asbestos; Emergency Temporary Standard

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

[Docket No. H-0330]

Occupational Exposure to Asbestos

AGENCY: Occupation Safety and Health Administration (OSHA), Labor.

ACTION: Emergency temporary standard.

SUMMARY: OSHA is issuing an emergency temporary standard (ETS) to reduce the permissible exposure limit (PEL) for asbestos from 2 fibers (longer than 5 micrometers) per cubic centimeter (2 f/cc) as an eight-hour time-weighted average, to 0.5 f/cc. During the period of the emergency standard, employers may use all practicable control methods, such as engineering controls, work practices and personal protective equipment to meet the new limit of 0.5 fibers per cubic centimeter (0.5 f/cc). Training programs are also required to be instituted within 30 days.

The basis for this ETS is OSHA's determination that continued employee exposure to asbestos under current conditions that exceed 0.5 f/cc presents a grave danger of developing asbestos-induced cancer and asbestosis to exposed employees, and that an emergency standard is necessary to protect them. The ETS serves also as a proposal to revise the current asbestos standard pursuant to section 6(b) and 6(c) of the Act.

This notice also requests comments on the appropriateness of including the provisions of the ETS as permanent revisions to the asbestos standard. In addition, OSHA will soon publish a separate notice of proposed rulemaking that further explains the issues under consideration for the permanent standard and which raises some additional issues regarding the application of certain provisions of the asbestos standard to the construction industry. That notice will invite public comments and will schedule a rulemaking hearing pursuant to Section 6(b) of the Act concerning the proposed permanent revision to the asbestos standard.

DATES: The effective date for this ETS is November 4, 1983. Comments and evidence concerning the proposed revisions to the permanent standard made by the ETS must be received on or before January 3, 1984. As noted, OSHA will publish a notice of proposed rulemaking shortly that will set due dates for submissions to the asbestos docket for the issues raised therein.

ADDRESSES: Written comments should be submitted to the Docket Officer, Docket No. H-033C, Room S-6212, U.S. Department of Labor, Third Street and Constitution Avenue, N.W., Washington, D.C. 20210.

FOR FURTHER INFORMATION CONTACT: James F. Foster, Director, Office of Information and Consumer Affairs, OSHA, U.S. Department of Labor, Room N-3637, 200 Constitution Avenue, NW, Washington, DC 20210. Telephone (202) 523-8151.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction

This is an emergency temporary standard (ETS) issued pursuant to section 6(c) of the Occupational Safety and Health Act of 1970 (the Act) (84 Stat. 1596; 29 U.S.C. 655), the Construction Safety Act (Pub. L. 91-54; 40 U.S.C. 333), the Longshoremen's and Harbor Workers Compensation Act (33 U.S.C. 941), the Secretary of Labor's Order No. 9-83 (48 FR 35736), and 29 CFR Part 1911. This emergency standard consists of revisions to the existing standard covering occupational exposure to asbestos, 29 CFR 1910.1001, in order to protect employees from a grave danger from continued exposure to asbestos at current exposure levels.

OSHA has determined that workers exposed to asbestos under exposure conditions existing under the current standard face a grave danger of developing incurable cancer and asbestosis. Further, OSHA has found that an immediate reduction in exposure levels to 0.5 f/cc or below is necessary to protect such employees from this grave danger. Therefore OSHA is issuing this ETS to compel reduced exposures to respond to this emergency situation.

OSHA's determination that a grave danger currently exists is predicated upon quantitative risk estimates in this record which point to a large number of excess deaths from cancer (and asbestosis) among currently exposed workers which are attributable to continued exposures under present working conditions. OSHA estimated the number of cancer deaths avoided through lowering of the exposure to 0.5 f/cc, based on 6 months, 1-year, 20-year and 45-year periods of exposures at current levels.* The predicted cancer deaths avoided that result from these periods of exposure are respectively 210, 426, 5725 and 7815. A more detailed discussion of these estimates is found in the sections, Quantitative Risk Analysis (Section V), Grave Danger (Section III A), and Need for an ETS (Section III B). Risks of this magnitude at permitted and actual exposure levels defined a situation which demanded immediate regulatory action. Evaluation of the relevant scientific data, policy considerations and exposure patterns of workers has convinced OSHA that continued exposure at the current PEL and under actual workplace conditions constitutes a "grave danger" to employees, and that an ETS is needed to protect them.

The ETS requires that employees may not be exposed to concentrations of asbestos exceeding 0.5 f/cc on an 8-hour time-weighed average basis, and permits the employer to choose among engineering controls, work practices and respirators to reduce exposures to the new PEL. However, the requirement in § 1910.1001(c) to utilize feasible engineering controls and work practices to reduce exposure levels to 2 f/cc remains in effect under this temporary standard. The ETS also requires employers to institute a training program within thirty days of the effective date of this emergency standard. The training progam will include instruction on respirator fitting and use, handling of asbestos, medical information, the relationship between smoking and lung cancer, and a review of the asbestos standard. The ETS applies to all industries covered by the Act, including "general industry", construction and maritime industries.

* OSHA is aware, of course, that Section 6(c) of the Act limits the effective time of an ETS to 6 months and OSHA concludes that a grave danger exists and an ETS is necessary even if OSHA focuses exclusively on this six month period. However, the Agency believes it is appropriate to calculate benefits deriving from an ETS using lifetime risks from 20 and 45 years of exposure to the PEL of 0.5 f/cc established by the ETS. Although the ETS expires within 6 months, Section 6(c) requires that rulemaking on a permanent standard also be completed within 6 months, so that there will be no gap in protection for exposed employees. In OSHA's experience and judgment, complying with this stetutory directive and completing rulemaking for a permanent standard within 6 months of an ETS has and can be done.

As provided in 29 CFR 1953.22, the 24 States with their own OSHA-approved occupational safety and health plans are expected to adopt a comparable standard within 30 days of this publication date. These States are: Alaska, Arizona, California, Connecticut (for State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming.

Also, in response to the emergency conditions faced by exposed workers, OSHA is stepping up its enforcement activities in targeting workplaces where asbestos is handled.

The temporary provisions that are being added to the existing asbestos standard prescribes the major components of an occupational safety and health standard. In general, most of the current requirements remain unaffected by the emergency temporary standard. However, compliance with some requirements will be triggered by the new exposure limit of 0.5 f/cc instead of the former PEL of 2 f/cc. For example, requirements such as change rooms remain unaffected by the ETS and the trigger level for change rooms remains the former PEL of 2 f/cc (§ 1910.1001(d)(4)). However, the ETS requires that where concentrations may exceed the new PEL, the employer must post signs indicating such locations (§ 1910.1001(k)(6)).

OSHA based its decisions concerning appropriate provisions for the ETS on its determinations of the kind and degree of protective action needed to protect against a grave danger and the feasibility of instituting these provisions during the period of the ETS.

Under section 6(b) of the Act, OSHA will shortly schedule an informal rulemaking hearing on the proposed permanent changes to the standard. OSHA will also propose other revisions to the asbestos standard that will be explained in the separate notice of proposed rulemaking. Application of certain provisions of the asbestos standard to the construction industry will be raised at that time. OSHA anticipates that this notice will be published shortly. OSHA is now accepting written comments on those issues raised in the ETS which are relevant to revising the permanent rule. The Secretary must promulgate a section 6(b) standard no later than six months after publication of the emergency standard.

II. Legal Authority and Background

A. Legal Authority

Section 6(c) of the Act provides for immediately effective emergency temporary standards in certain circumstances. The Secretary has the authority to issue such a standard, without rulemaking, "if he determines (A) that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and (B) that such emergency standard is necessary to protect employees from such danger." 29 U.S.C. 655(c)(1). Thus, the danger must be "from" worker exposure and it must be "grave," not merely significant and the regulation must be "necessary" to address "such danger," not merely reasonably necessary or appropriate to provide safe employment. In addition, as in section 6(b) permanent standards, OSHA may impose requirements in the emergency standard only to the extent that they are "feasible" within the meaning of section 6(b)(5) of the Act.

The Fifth Circuit has emphasized the importance of the severity of health effects in OSHA's consideration of whether an ETS is appropriate:

> "... the danger of incurable, permanent, or fatal consequences to workers, as opposed to easily curable and fleeting effects on their health, becomes important in the consideration of the necessity for emergency measures to meet a grave danger." *Florida Peach Growers Association, Inc.* v. *United States Department of Labor*, 4898 F.2d, 132 (CAS).

OSHA also has interpreted relevant judicial decisions to require that its evaluation of the gravity of the danger and the necessity for emergency action must be made in the context of actual workplace conditions.

B. Background

1. *Events Leading to the ETS.* In June, 1983, OSHA received a petition for an ETS from the International Association of Machinists and Aerospace Workers (Exs. 84–244). Subsequently letters supporting this petition were received from 16 other unions (Ex. 84–284 to 84–294, 84–387 to 84–391). The petition requested an ETS to reduce the PEL to 0.1 f/cc, to modify some existing work practice requirements, and to require other protective provisions regardless of exposure level. The main reasons set forth in the petition and supporting letters are that continued exposure under current workplace conditions constitutes a grave danger and that delaying remedial action until a permanent standard is promulgated would cost large numbers of currently-exposed workers their lives. OSHA shares the genuine concern expressed by the petition and letters from unions representing thousands of employees who are directly faced with the threat of asbestos-related disease from continued exposure. And OSHA concludes that failure to issue this ETS may cost a number of exposed workers their lives.

In August 1983, OSHA completed a comprehensive risk assessment based on numerous human studies which estimated the number of excess deaths from the three major asbestos-related cancers, i.e., lung cancer, mesothelioma and gastrointestinal cancer, at the current permissible exposure level of 2 f/cc and at various reduced exposure levels. OSHA placed this document, "Quantitative Risk Assessment for Asbestos-Related Cancers", in the Asbestos docket in August 1983 (Ex. 84-349). OSHA subsequently revised this document (See Ex. 84–392).

2. *History of the Asbestos Standard.* OSHA has regulated asbestos since 1971. A 12 f/cc limit for asbestos was included in the initial promulgation of OSHA standards pursuant to section 6(a) of the Act, on May 29, 1971 (36 FR 10466). In response to a petition by the Industrial Union Department of the AFL–CIO, OSHA issued an ETS on asbestos on December 7, 1971, which established a PEL of 5 f/cc on a time-weighted average basis and peak exposures of 10 f/cc.

The current standard, promulgated in June 1972, first established an 8-hour time-weighted average PEL of 5 f/cc and a ceiling limit of 10 f/cc. The limits were intended primarily to protect employees against asbestosis, and it was hoped that they would provide some incidental degree of protection against cancer. Effective July 1976, the TWA limit was reduced by the standard to 2 f/cc. This limit has remained in effect since that time. The standard also includes provisions covering methods of compliance, monitoring, medical surveillance and housekeeping.

Court review of this standard upheld all major provisions, but remanded two issues for OSHA's reconsideration. *IUD* v. *Hodgson*, 499 F. 2d 467 (CADC 1974). These issues were whether the July 1976 date for the 2 f/cc standard should be accelerated for some industries and the adequacy of the 3 year retention period for exposure monitoring records. Subsequently, OSHA increased this retention period to 20 years (41 FR 11504) and the acceleration issue became moot.

After reviewing the then available scientific data, in October 1975 OSHA published a notice of proposed

rulemaking to revise the asbestos standard because OSHA believed that "sufficient medical and scientific evidence had been accumulated to warrant the designation of asbestos as a human carcinogen" and that advances in monitoring and protective technology made reexamination of the standard "desirable." This proposal would have reduced the time-weighted average to 0.5 f/cc and imposed a ceiling limit of 5 f/cc for 15 minutes (40 FR 47652).

The basis for the 1975 proposal's reduced permissible level of 0.5 f/cc was OSHA's then current policy for carcinogens that no safe threshold level was demonstrable and, therefore, the Act required OSHA to set the PEL as low as technologically and economically feasible. This policy was rejected by the Supreme Court in the benzene decision (*IUD* vs. *API*, 448 U.S. 603 (1980)). OSHA limited the proposed revisions in the 1975 notice to all industries except construction. No hearing was scheduled on the 1975 proposal. Also, although OSHA announced its intention to develop a separate proposed revision applicable to the construction industry, no such proposal has been published to date.

OSHA is basing its present decision to issue an ETS, and to propose revisions to the permanent standard covering all employees, on information and analyses which postdate the 1975 proposal. Therefore, this ETS marks a new regulatory initiative, related to, but not part of the 1975 proceeding. On May 24, 1983, OSHA consulted the Construction Advisory Committee for Occupational Safety and Health (CACOSH) concerning applicability of a new asbestos standard for the construction industry. CACOSH endorsed OSHA's position that changes in the PEL made for general industry should also apply to the construction industry. OSHA is also including the comments and data received in response to the 1975 notice in the record of this proceeding, with the understanding that some commenters may have changed their positions based on intervening scientific developments and policy shifts.

In the decision to issue an ETS, the Agency has reviewed this regulatory history of asbestos. However, the Agency bases the decision to issue an ETS on the actual emergency conditions which now confront exposed workers, on epidemiologic studies that provide data to make numerical estimates of risks and on interpretations of these studies using quantitative risk analysis.

3. *The Rulemaking to Revise the Permanent Standard.* The 6(b) rulemaking initiated by this proposal is intended to be limited to the revisions made by the ETS and the additional proposed amendments raised in the notice of proposed rulemaking to be published soon. The major subjects of the 6(b) rulemaking will be: reducing the permissible exposure limit, revising the definitions of asbestos and asbestos fibers, reassessing the methods of compliance to achieve such limits, revising the provisions regarding respirator selection, revising the sampling and analytical method to improve reliability, and adding a training requirement. OSHA will also raise issues regarding the application of the permanent standard to the construction industry. As previously stated, OSHA will soon publish a separate notice of proposed rulemaking to further explain these issues.

The medical, epidemiological and statistical studies cited by OSHA to support their issuing this ETS are not included in this copy. The sections not in this copy are:

This copy starts again at Page 51132:

VI. Technical and Economic Feasibility

Based on an evaluation of evidence contained in the record, OSHA finds that the provisions required by the ETS are technically and economically feasible. OSHA has examined the various industries and work operations impacted by the standard and their ability to comply with the provisions of the ETS. Because the ETS requires prompt reduction of risk, OSHA

assessed the industry's ability to implement the required controls immediately.

The ETS allows considerable flexibility in achieving the PEL. As a result, three options are available to lower the asbestos fiber concentrations to which workers are exposed: (1) Engineering controls such as automatic bag opening devices, specialized vacuum equipment and increased ventilation; (2) work practices, such as wet treatment of the asbestos material and increased clean-up of the work place, and (3) use of approved respirators. Due to the emergency nature of this action which requires immediate response to reduce worker exposure, OSHA assumes that respirators will be the initial method used to comply with the ETS. A full discussion of the technological and economic feasibility of the alternative methods for each industry and for the various PELs under consideration for revising the permanent standard will accompany the proposal which will be published separately.

OSHA believes that, consistent with the estimates of current exposure levels, engineering controls are currently in place and work practices, in operation which, if applied conscientiously, would immediately result in concentrations at least as low as 0.5 in many industries (Ex. 84–262; Ex. 84–263; Ex. 84–9 and Ex. 84–295). For purposes of assessing the technological and economic feasibility, however, OSHA assumed a worst-case scenario in which each industry segment would have to implement a respirator program in order to achieve immediate reduction in worker exposure levels below the estimated current concentrations. Furthermore, for purposes of worst-case analysis, OSHA assumed that none of these industries has any respirator program except for the shipbuilding and construction segments. OSHA makes this assumption because OSHA estimates that most workers in industries other than shipbuilding and construction are exposed to eight-hour time-weighted averages less than 2 f/cc, and the OSHA standard issued in 1972 only requires a respirator program when engineering controls and work practices cannot bring exposures to 2 f/cc. To the extent that some firms do have an existing respirator program the costs are overestimated.

A. Technical Feasibility

The following table presents the assumptions OSHA made regarding the respirator program elements required by each industry to obtain a PEL of 0.5 f/cc. The types of respirators needed for each industry sector were determined using the respirator selection table in the ETS with reference to the estimated current exposure conditions. OSHA assumed that the least costly approved respirator would be selected. For example, where industries have exposures less than ten times the PEL, OSHA anticipated that disposable respirators would be purchased, because of their lower short-term costs. When exposures exceeded ten times the PEL, OSHA assumed that some plants would either use air line respirators, or full facepiece respirators, depending upon the operation. To the extent that firms choose a higher-cost respirator to increase the protection factor or durability, respirator costs may be understated. Furthermore, OSHA has not included in the cost analysis a consideration for lost worker productivity due to wearing respirators. Costs may be understated by whatever amount productivity is reduced. Other anticipated respirator program elements required to determine costs for the ETS are listed below. These elements are derived from the existing provisions found in the Asbestos Standard, 29 CFR 1910.1001 and the standards for respirators, 29 CFR 1910.134.

All of the required respirators and filters are readily available and can be purchased through local distributors. Since the program relies mostly on disposable respirators, OSHA considers that there will be no supply constraints. As the worst-case (or high) estimate, OSHA assumes that approximately 50,000 workers will wear respirators because of the ETS who did not previously wear respirators. OSHA has concluded that the use of respirators will be effective in providing improved worker protection during the period of the ETS. In addition to encouraging generally more widespread use of respiratory protective measures, the ETS will stimulate a heightened understanding of the health hazards from asbestos exposure and will result in more effective use programs and strategies. Issues involving the appropriateness of respirator use as a long-term solution to controlling asbestos exposures are raised in the section 6(b) rulemaking proceeding (see Ex. 84–345, 84–346, 84–347, 84–348).

BILLING CODE 4510-26-M

TABLE 16
Anticipated Respirator Program Elements Required to Meet PEL

Industry Segment	Anticipated Type of Respirators Used to Meet the PEL	Other Program Elements
Primary Manufacturing A/C Pipe & Sheet Friction Materials	1 disposable/workday/worker 2 air-line/plant (for high concentration situations)[a]	Full admin. costs[b] Fit Test[c] Training[d]
Asbestos Paper Gaskets	1 disposable/worker/day for portions exposed at 0.75	50% admin. costs Fit Test Training
Floor Tile	(Nothing for PEL of 0.5)	
Paints, Coatings and Sealants	1 disposable/worker/day for 75% of workers	75% admin. costs Fit Test Training
Textiles Wet Process	1 disposable/worker/day	Full admin. costs Fit Test Training
Dry Process	1 disposable/worker/day	Full admin. costs Fit Test Training
Secondary Fabricators Cement Sheets, Paper Products, Packing and Gaskets	1 disposable/worker/day 2 air-line/plant for high concentration situations	1% admin. costs Fit Test Training
Textiles	1 disposable/worker/day	1% admin. costs Fit Test Training
Automotive Aftermarket Rebuilding and Refacing	1 disposable/worker/day 1 air-line/plant	1% admin. costs Fit Test Training

Respirator Program Requirements (Cont.)

Industry Segment	Anticipated Type of Respirators Used to Meet the PEL	Other Program Elements
Brake Repair	Nothing	
Gasoline Stations	Nothing	
Shipbuilding/Repair		20% of admin. costs
Shipbuilding	Nothing	Fit Test
Ship Repair	1 disposable/worker/day for 20% of total workforce	Training
Construction		10% admin. costs
Installation	1 disposable/worker/day	Fit Test
A/C Pipe		Training
A/C Sheet		
Roofing Felts	Nothing	
Demolition/Renovation	1 HEPA full face for 25% of the workforce	25% admin. costs Fit Test Training
Repair & Maintenance	Nothing	

[a]OSHA assumes that certain jobs such as cleaning of vacuum equipment will produce exposure levels greater than 10 times the PEL. Consequently, OSHA assumes 2 air line respirators will be required per plant except for small operations which will require only one air-line respirator per plant.

[b]Administrative costs represent the salary of one full time professional at $30,000 per annum and one full time clerk at $15,000 per annum. OSHA has adjusted administrative costs to represent expected reasonable time spent administering a respirator program in each industry. In the secondary fabrication and automotive aftermarket sectors, for example, OSHA anticipates that supervisors will spend 15 minutes a day distributing and monitoring the use of disposable respirators. These sectors have far less of a management burden than large firms, and thus, administrative costs are calculated at 1 percent of the full administrative amount. OSHA believes that administrative costs have been overstated in most segments in order to present a worst case scenerio.

[c]OSHA assumes that every employee must be fit tested for respirator use at a cost of $21 per employee.

[d]OSHA has allowed 3 hours for respirator and asbestos training. OSHA considers that this is very liberal, especially in industry segments characterized by small plants and by the use of disposable respirators. Costs for this element are therefore overstated to present the worst-case scenario.

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OSHA also examined the feasibility of analytical methods for measuring asbestos air concentrations at the 0.5 f/cc limit established by the ETS. OSHA's existing standard requires that all measurements of airborne concentrations of asbestos fibers be made by the membrane filter method at 400–450 × (magnification) (4 millimeter objective) with phase contrast illumination (29 CFR 1910.1001(e)). After reviewing the relevant evidence made available since the 1975 proposal, OSHA finds that phase contrast microscopy is a feasible and effective method for measuring airborne asbestos fibers to determine compliance with the permissible exposure levels set by the Emergency Temporary Standard.

The most important issue raised by comments to the 1975 notice is whether phase contrast microscopy analysis is capable of reliably measuring airborne concentrations of 0.5 fibers/cc and less. OSHA acknowledges that asbestos airborne measurement procedures using phase contrast microscopy, as with any industrial hygiene analytical procedure, inherently contains several error sources. These errors have been statistically evaluated by Leidel et al. (Ex. 84–62), and, in 1979, by the Air Monitoring Committee of the Asbestos Information Association/North America, referred to herein as AIA (Ex. 86–002) both using round-robin sample exchange data. Chatfield also examined this question (Ex. 84–319). In the Leidel et al. and the AIA evaluations, the error, measured as a coefficient of variation (CV), was found to be related to the number of particles counted from the filter. For 100 fibers counted Leidel, et al. found a CV of 0.12, whereas the AIA report found a CV of 0.35 [1] or errors associated with interlaboratory-intrafilter variability.

Based upon these studies, taken at their face value, it appears that the phase contrast microscope analysis is capable of reasonably reliable measurements at 0.5 fibers/cc. As stated in the AIA report (Ex. 86–002, p. AB–2), "The calculated results indicate that the 95% confidence limits on a measured 8-hour TWA can be relatively constant with a wide, but usable, range down to concentrations approaching 0.5 fibers/cc [less than] 5M."

The AIA report shows a higher error than does the Leidel et al. report. One possible reason for this difference may be that the AIA report assessed the variability in measurements as they are being made today by the many laboratories who are making the measurements. For example, only 27 of the 46 laboratories participated in the PAT program and no counting guidelines were given, whereas, the Leidel et al. report included only a small number of laboratories operated by Johns Mansville Company, that probably used very similar procedures and conducted similar training.

In late 1982, Chatfield prepared a report entitled "Measurement of Asbestos Fibre Concentrations in Workplace Atmospheres" for the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario (Ex. 84–319). Chatfield analyzed intra-and inter-laboratory variability and arrived at conclusions somewhat similar to those of AIA and Leidel. Chatfield also recommended methods by which the accuracy and precision of phase contrast microscopic analytical techniques could be improved. Significantly, he noted "in view of the number and frequency of measurements required, there is currently no fully developed alternative method [to phase contrast microscopy] which could be immediately implemented."

OSHA notes that the authorities cited above believe that it may be possible to reduce phase contrast microscopy errors if improved and standardized procedures are followed, perhaps by adding requirements to the standard. It does not appear, however, that improvements of this nature can be quickly made in the immediate format of this ETS. Therefore, based on the evidence before it at the time of issuance of this emergency standard, OSHA believes that it is generally not possible to measure asbestos concentrations below 0.5 f/cc reliably and reproducibly using phase contrast microscopy under current laboratory practices. OSHA finds that the phase contrast microscopy method can be feasibly used to measure asbestos air concentrations down to 0.5 f/cc.

B. Economic Feasibility

The industry costs based on the program elements described in Table 16 are presented in Table 17. For the ETS, the costs of asbestos training are included with respirator training. Costs for warning signs are not included, since, for the purposes of the ETS, these signs could be hand-made at very low costs. OSHA did not analyze costs associated with the alternate benefits scenario (See Table 4) since that scenario was constructed to show a lower range of benefits but does not represent an estimate of current industry practice.

The costs are overstated to the extent that some firms already have a current respirator program and to the extent that careful application of existing engineering controls and work practices would reduce concentrations to the PEL in some firms and thereby make respirator use unnecessary. Furthermore, the costs assume that dust masks and filters will have to be replaced every 8-hour day. Some of this cost (i.e., the disposable respirators, filters and administrative overhead) can be in fact spread over the period during which the ETS is in effect.

Finally, the costs assigned to the Shipbuilding/Repair and Construction-Demolition/Renovation segments represent cost which reflect increased compliance with current obligations (e.g. increased respirator use to meet the current standard as a result of the ETS training requirements) and are not directly attributable to the ETS.

Note.—OSHA anticipates that the ETS will spur many employes who previously were not in compliance to expend the necessary resources in order to come into compliance with the ETS.

The total cost is estimated at $35,565,402 for 6 months. This translates into an average cost per employee of $708. Average 6 month costs per worker presented on an industry basis in Table 17 range from $251 in the automotive aftermarket segment to $973 in the construction segment. These costs are not a large portion of industry shipments as presented in Table 18. Moreover, firms in these industries will be able to pass the costs forward because asbestos substitutes in most industries are not immediately available. For all these reasons, OSHA finds that the ETS is economically feasible.

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[1] The AIA report also reports a separate CV for overall variability in the sample evaluation step plus "random variability in the sample collection step." This "random variability of sample collection" as described in this study may be a measure of the true difference in air concentrations from one location to the next and may not be a measure of random variability. A more carefully designed sampling strategy with precise control of instrumentation placement, air currents, and dust generation is necessary to eliminate differences in airborne dust concentrations from one location to another.

Table 17

Estimated Costs of Respirator Program
for ETS with PEL of 0.5

Industry Segment	Total Costs ($) 1 - year	6 - months	6-mo. average Cost/employee
Primary Manufacturing	6,404,965	4,143,242	481
Secondary Fabricators	13,547,224	9,435,532	548
Automotive Aftermarket	1,620,197	1,027,864	251
Shipbuilding/repair	626,286	324,526	533
Construction	36,329,740	19,634,236	973
Total	58,528,412	34,565,402	708

Table 18

ETS Compliance Costs Compared
to Sales by Industry Segment

Industry Segment	Cost/Sales
Primary Manufacturing	.003
A/C Pipe & Sheet	.002
Frictin Materials	.008
Asbestos Paper	.003
Paints, Coatings and Sealants	.005
Gaskets, Seals and Packings	.001
Textiles	.014
Secondary Fabricators	.011
Cement Sheets	.072
Paper Products	.011
Packings and Gaskets	.010
Textiles	.014
Automotive Aftermarket	
Rebuilding and Refacing	.0004
Shipbuilding/Repair	.0001
Construction	.0004

Note: Sales values are for 1977 and 1978. Values for Primary Manufacturing and Secondary Fabricators were taken from 84-003; values for the Automotive Aftermarket were taken from U.S. Industrial Outlook, 1983; and values for Shipbuilding/Repair and Construction were taken from the 1982/83 Statistical Abstract. The value for Construction was adjusted by substracting the value for Highway & Streets and Residential and adding the value for Demolition/Wrecking.

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VII. Environmental Impact, Requirements of Executive Order 12291, and the Regulatory Flexibility Act

The National Environmental Policy Act (NEPA) of 1969 (U.S.C. 4321 et seq.), as implemented by the guidelines (40 CFR Part 1500) of the Council on Environmental Quality (CEQ), requires that federal agencies assess their regulatory actions to determine if there is a potential for a significant impact on the quality of the human environment and, if necessary, to prepare an environmental impact statement.

In accordance with these requirements and DOL NEPA regulations (29 CFR Part 11 [Subpart B, 11.10 (a) (4)]) OSHA had determined that because of the emergency nature of this standard, no environmental impact statement will be perpared for the ETS. The courts have held that NEPA does not require advance preparation of an environmental impact statement for an OSHA ETS (*Dry Color Manufacturing Assocation* v. *U.S. Department of Labor* 486 F.2d 98, 107 (3rd Cir. 1973)). OSHA will assess, however, the environmental effects of the proposed permanent regulation of asbestos. The results of this study will be available for review and comment prior to the hearings on the proposed permanent standard and will be an appropriate issue for discussion at the public hearing.

In the interim, OSHA welcomes any comments on any environmental effects that might occur as a result of promulgation of a rule on asbetos.

Pursuant to the authority of Section 8(a)(1) of Executive Order 12291 OSHA has not prepared a Regulatory Impact Analysis of this ETS. Preparation of such an analysis was not practicable for OSHA to perform in time to issue this ETS to respond to the grave dangers faced by asbestos exposed workers. OSHA, however, is completing a Preliminary Regulatory Impact Analysis of the proposal to revise the permanent standard which will be made public at the time the proposal is published.

The Regulatory Flexibility Act requires an agency to prepare a Regulatory Flexibility Analysis only for those rules for which a notice of proposed rulemaking is published. OSHA's issuance of an ETS therefore is not covered by the Regulatory Flexibility Act because the OSHA Act provides that ETS's be issued without regard to notice, public comment and other requirements in the Administrative Procedure Act. The proposal to revise the permanent asbestos standard, however is subject to the requirements of the Regulatory Flexibility Act and OSHA will evaluate the proposal to ascertain whether analysis under the Regulatory Flexibility Act is required.

VIII. Summary and Explanation of the ETS

The requirements of this emergency temporary standard are set out in a new paragraph, § 1910.1001(k). They are limited to additional provisions to the existing asbestos standard which OSHA considers essential and feasible to protect employees from the grave danger resulting from asbestos exposure until OSHA can promulgate more comprehensive revisions in accordance with section 6(b) of the Act. The major changes in the standard made by the ETS are: (1) The new permissible exposure level; (2) methods of compliance permitted to achieve the new level; and (3) a requirement for the establishment of training programs within 30 days. The following section discusses the major provisions of the ETS, the necessity for including these provisions in the ETS, and some additional provisions to trigger certain requirements at the reduced permissible level of 0.5 f/cc.

1. *Paragraph (k)(1) Scope.* As part of the ETS, OSHA is adding a paragraph on the scope of the standard. The paragraph is intended to make clear that the emergency standard applies to all workplaces where employees may be exposed to asbestos in all industries covered by the current asbestos standard *ie.* general industry, construction and maritime.

2. *Paragraph (k)(2) Permissible level of exposure.* As part of the ETS, OSHA is adding paragraph (k)(2) which sets a new PEL, effective immediately, of 0.5 f/cc on an 8 hour time weighted average basis. This reduced level may be achieved by any feasible combination of engineering controls, work practices and respiratory protection in order to allow employers to institute effective measures to reduce employee exposures immediately.

OSHA chose 0.5 f/cc as the permissible exposure level primarily because it believes that reducing employee exposures to 0.5 f/cc in all industries will greatly reduce the risk of developing asbestos induced cancers, primarily lung cancer, mesothelioma and gastrointestinal cancer. As set out in the discussion on "grave danger" and "benefits", the number of lives OSHA believes may be saved through an immediate reduction of exposure to 0.5 f/cc is substantial.

OSHA also believes that the 0.5 f/cc level is appropriate for several other reasons. First, because an emergency standard must be feasible, and employers must be able to comply with the standard in a short period of time, OSHA has set a level which is likely to be achieved immediately, using equipment and control techniques that are currently available.

Second, OSHA believes, based on the data generated by OSHA's contractor, Research Triangle Institute, that some workplaces, especially in the manufacturing sector, may be close to achieving a 0.5 f/cc level through the more rigorous use of engineering controls, work practices and housekeeping methods which are now in place. OSHA encourages employers to continue their efforts to implement these methods in order to assure that, for the long term, the most comprehensive and effective program of protection from asbestos exposure will be provided.

Third, OSHA believes that reliability of the currently required asbestos measurement methods to measure asbestos exposures less than 0.5 f/cc should be open for discussion during a rulemaking hearing, rather than imposed through an ETS. OSHA has therefore not adopted the 0.1 f/cc level petitioned by the unions but instead is considering adding provisions to the asbestos standard that may improve the reliability of both sampling and analysis in the 6(b) rulemaking for the permanent standard and thus allow lower levels to be reliably measured.

3. *Paragraph (k)(3) Methods of compliance.* The ETS adds a new paragraph (k)(3), which permits employers to reduce the permissible exposure limit from the current 2 f/cc limit to the 0.5 f/cc limit by any feasible combination of engineering controls, work practices and respiratory protection. The current requirement in paragraphs (c)(1) and (c)(2) to first utilize engineering controls and work practices to reduce exposure levels to 2.0 f/cc remains unaffected by this ETS.

Flexibility in choosing compliance strategies for the period of an ETS has been incorporated in most other previously issued emergency standards. The policy reflects OSHA's determination to craft emergency standards that are truly responsive to emergency conditions and which afford immediately available protection to affected workers.

4. *Paragraph (k)(4) Employee information and training.* The ETS adds a paragraph to the asbestos standard requiring the employer to provide a training program within 30 days of publication of the emergency standard for all employees whose exposures are reasonably expected to exceed the PEL of 0.5 f/cc, without regard to the use of

respirators, and to assure that all such employees participate in the program and are informed of specified categories of information. OSHA considers this provision to be "necessary" within the meaning of section 6(c) of the Act, to reduce the grave danger faced by asbestos exposed employees. The absence of a training program requirement in the asbestos standard has been pointed out as one of the serious deficiencies of the current standard. OSHA believes that participation in an adequate training program is essential for the protection of employees because most protective provisions enlist the employee as an active participant. For example, many employees handling asbestos depend on effective work practices. Without training in applying these work practices, employee protection would be inadequate. Where the employee plays a more passive role in his protection such as where engineering controls are relied on, training is also essential, because the employee must know the sources of workplace asbestos contamination, and the health hazards of asbestos exposure, in order to assess his own exposure situation and to help recognize when engineering controls are not operating properly. Certainly where housekeeping plays an important role in control, instruction about housekeeping methods, for example, frequent vacuuming, is essential. Perhaps most importanly, where employee protection depends upon respirator use, OSHA's experience shows that training employees in the use, fitting and limitations of respirators is critical to the effectiveness of respirator protection. Accordingly this requirement applies where airborne concentrations are reasonably expected to exceed 0.5 f/cc, even if employees use respirators to reduce breathing zone concentrations and thereby comply with the ETS.

As set forth in paragraph (k)(4) the employer must inform the employee of the health effects of asbestos exposure; the relationship between asbestos and smoking in producing lung cancer; the operations exposing employees to asbestos fibers and necessary protective steps to minimize exposure; the purpose, proper use, fitting instructions and limitations of respirators, and the contents of all the provisions of the Asbestos Standard at 1910.1001.

5. *Paragraph (k)(5) Respiratory protection during the ETS.* The ETS adds a new paragraph (k)(5) which includes a table which ties respirator selection to the 0.5 f/cc PEL. Under the ETS, the concentration cut-offs for various kinds of respirators are multiples of the reduced PEL of 0.5 f/cc, rather than multiples of the previous 2 f/cc permissible limit. For example, approved air purifying respirators may be used only where asbestos concentrations are not expected to exceed 5 f/cc (10 x the PEL). Before the ETS, because the PEL was 2 f/cc, such respirators could be used where asbestos concentrations would not have exceeded 20 f/cc (10 x the PEL of 2 f/cc).

Similarly, powered air purifying respirators may be used where asbestos concentrations do not exceed 100 times the PEL, which at the new level of 0.5 f/cc is 50 f/cc. Previously, employers could have used such respirators at concentrations up to 200 f/cc.

It is likely that the main impact of the reduced PEL on respirator choice will be in operations and industries where exposure levels are between 5 f/cc and 20 f/cc. Formerly, employees exposed in this range could use half-mask air purifying respirators; now they must be protected by a powered air purifying respirator or a full facepiece respirator, or they may use a supplied air respirator.

6. *Paragraph (k)(6). Warning signs during the ETS.* The ETS requires that legible signs warning of the health hazards of asbestos be displayed at locations where airborne concentrations of asbestos fibers exceed the reduced exposure limit of 0.5 f/cc. No specific legend is required signs for newly posted during the ETS. OSHA wishes to make as practicable as possible the rapid posting of signs, especially in workplaces where there has been previous non-compliance and in areas where asbestos concentrations were formerly below the 2.0 f/cc PEL.

XI. Public Participation

Interested persons are invited to submit written data, views and arguments with respect to the revisions to the asbestos standard made by the ETS. These comments must be postmarked on or before January 3, 1984 and sent to the Docket Officer, Docket No. H-033C, Occupational Safety & Health Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Room S-6212, Washington, D.C. 20210.

The data, views and arguments that are submitted will be available for public inspection and copying at the above address. All timely written submissions will be made a part of the record of the proceeding.

List of Subjects in 29 CFR Part 1910

Occupational safety and health, Asbestos, Health, Emergency temporary standard, Cancer.

Authority and Signature

This document was prepared under the direction of Thorne G. Auchter, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210. Pursuant to Sections 6(b), 6(c), 8(c) and 8(g) of the Act, 29 CFR 1910.1001 is amended by adding a new paragraph (k) as set forth below.

(Secs. 6(b), 6(c), 8(c) and 8(g), Pub. L. 91-596, 84 Stat. 1593, 1596, 1599, 1600; 29 U.S.C. 655, 657; Sec. 107, Pub. L. 91-54, 83 Stat. 96 (40 U.S.C. 333); 29 CFR Part 1911; Secretary of Labor's Order No. 9-83 (48 FR 35736))

Signed at Washington, D.C., this 2nd day of November 1983.

Thorne G. Auchter,

Assistant Secretary of Labor.

PART 1910—[AMENDED]

Section 1910.1001 of Part 1910 of Title 29 of the Code of Federal Regulations is hereby amended by adding a new paragraph (k) reading as follows:

§ 1910.1001 Asbestos.

* * * * *

(k) *Emergency temporary standard effective November 4, 1983.*—(1) *Scope.* This emergency temporary standard is issued pursuant to section 6(c) of the Act and applies to all workplaces where employees may be exposed to asbestos in all industries covered by the Act, including, general industry, construction and maritime. Except to the extent modified by this emergency temporary standard all provisions of § 1910.1001 remain in effect.

(2) *Permissible levels of exposure.* The 8-hour time-weighted average airborne concentration of asbestos fibers to which any employee may be exposed shall not exceed one-half (0.5) fiber, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

(3) *Methods of compliance with the emergency temporary standard.* Notwithstanding any other requirements of this section, compliance with the reduced exposure limit of 0.5 f/cc shall be achieved by any feasible combination of engineering controls, work practices, and personal protective equipment and devices.

(4) *Employee information and training.*—(i) As soon as possible, but not later than thirty (30) days from the effective date of this emergency temporary standard, the employer shall institute a training program for all employees exposed to airborne concentrations of asbestos in excess of

0.5 f/cc, without regard to the use of respirators and shall assure their participation in the program during the effective period of this emergency temporary standard.

(ii) The employer shall assure that each such employee is informed of the following:

(A) The health effects associated with asbestos exposure;

(B) The relationship between asbestos and smoking in producing lung cancer;

(C) The nature of operations which could result in exposure to asbestos and necessary protective steps to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping and protective clothing;

(D) The purpose, proper use, fitting instructions and limitations of respirators permitted by the standard; and

(E) A review of all the provisions contained in 1910.1001.

(5) *Respiratory protection during the ETS.* Notwithstanding any other requirement of this section, where respirators are used to achieve the permissible exposure limit of 0.5 f/cc they shall be selected according to Table 1.

(6) *Warning signs during the ETS.* In addition to the requirements of paragraph (g)(1) of this section, legible signs warning of the health hazards of asbestos shall be provided and displayed at each location where airborne concentrations of asbestos fibers may exceed 0.5 f/cc.

TABLE 1

Respiratory Protection

For Airborne Concentrations of Asbestos

Airborne Concentration of Asbestos (TWA)	Required Respirator[1]
Not in excess of 5 f/cc (10 X PEL)	Reusable or single use air purifying respirator
Not in excess of 50 f/cc (100 X PEL)	Full facepiece air purifying respirator, or a powered air purifying respirator
Greater than 50 f/cc	A type "C" continuous flow or pressure demand, supplied air respirator.

[1] Respirators specified for high concentrations may be used at lower concentrations of asbestos.

(Secs. 6(b), 6(c), 8(c) and 8(g), Pub. L. 91-596, 84 Stat. 1593, 1596, 1599, 1600; 29 U.S.C. 655, 657; Sec. 107, Pub. L. 91-54, 83 Stat. 96 (40 U.S.C. 333); 29 CFR Part 1911, Secretary of Labor's Order No. 9-83 (48 FR 35736))

[FR Doc. 83-30073 Filed 11-2-83; 1:45 pm]
BILLING CODE 4510-26-M

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

November 3, 1983

To: Officers and Board of Directors

Subject: OSHA Emergency Standard for Asbestos Exposure and the Institute's Health and Environmental Affairs Committee

Today's NEW YORK TIMES front-paged the decision of OSHA to proceed with an Emergency Temporary Standard lowering the maximum 8 hour Time Weighted Average (TWA) asbestos exposure level from 2 fibers per cc. to 0.5 fibers per cc. A copy of the article as it appeared in the TIMES is enclosed. As noted, a spokesperson stated that OSHA hoped that the emergency rule would be published in the FEDERAL REGISTER on Friday, November 4, 1983.

Before distributing this information to the full Membership, I will wait for the FEDERAL REGISTER document to spell out the details.

Any action or response to this OSHA move would ordinarily be coordinated by our Health and Environmental Affairs Committee. However, Mr. Jim Armstrong of Bendix Corporation, who has chaired our Health and Environmental Affairs Committee called me yesterday on his plans. In summary he noted that due to the Allied Corporation takeover of the Bendix Corporation, that he will not be with Bendix after January 1. Mr. Armstrong indicated that he would write me concerning his move, and noted that he would no longer be able to serve as Chairman or a Member of this Committee.

Based on this OSHA move and Mr. Armstrong's plans, I called Mr. Bob Nelson of Abex, President of the Institute, but was advised that Mr. Nelson was not in the office, being out ill.

I will await Mr. Nelson's return to the office as concerns restructuring the Committee. When the FEDERAL REGISTER publishes details on this Emergency Temporary Standard, I will advise the Membership. Any action on the Institute's part will depend on input from Mr. Nelson and the Committee.

The foregoing is for your information.

E. W. Drislane
Executive Director

EWD/dr
Enc.

NEW YORK TIMES, November 3, 1983

EMERGENCY RULING SET BY JOB AGENCY ON ASBESTOS PERIL

'Grave Danger' to 375,000 Is Cited — Permissible Level of Exposure Is Cut 75%

By The Associated Press

WASHINGTON, Nov. 2 — The Labor Department, warning today that 375,000 workers faced "grave danger" from asbestos fibers, reduced by 75 percent the permissible level of exposure in the manufacturing, construction and maritime industries.

An agency of the department, the Occupational Safety and Health Administration, put out an Emergency Temporary Standard lowering the legal asbestos exposure level over an eight-hour day from 2 fibers a cubic centimeter of air to half a fiber.

The emergency rule, the first by the Reagan Administration, is enforceable immediately upon publication in the Federal Register. A spokesman, Douglas Clark, said the agency hoped that would occur Friday.

Agency Risk Assessments

In announcing the action, Labor Secretary Raymond J. Donovan said the job safety agency's risk assessment predicted "three excess cancer deaths per 1,000 workers exposed for one year at the current permissible exposure level."

Those studies also showed "risk of grave danger" to people who have even short-term asbestos exposure, the agency said, adding that the mortality rate was 53 times higher for smokers who are exposed to asbestos.

Such studies indicate that lowering the asbestos level to half a fiber a cubic centimeter of air will "save many lives," the agency said.

Cancer and Lung Disease Link

Asbestos, a fibrous mineral widely used as a fire retardant in buildings and reinforcement in concrete pipes, has been shown to cause cancer and debilitating lung diseases.

Unions representing workers in construction and manufacturing industries had been pressing the Administration to take such emergency action. An asbestos health standard has been on the books since 1972, not long after the Occupational Safety and Health Administration was created, but has remained unchanged since 1976.

Under Government procedures, the job safety agency must propose a permanent asbestos standard and seek public comment on it within 60 days of publication of the emergency rule.

The agency administrator, Thorne G. Auchter, said last April that he was speeding OSHA's work on tightening the existing asbestos standard. In a letter to Sheldon Samuels, director of health and safety of the Industrial Union Department of the American Federation of Labor and Congress of Industrial Organizations, Mr. Auchter said, "Personally, I am very concerned about the asbestos problem."

He said at the time that the agency planned to issue new rules by June 1984.

Mr. Clark said the emergency standard was released today because OSHA officials had only just completed work on the document, which emerged in draft form eight weeks ago. He said that the agency was "making very minor changes" in the emergency standard as late as Tuesday morning.

He said Mr. Auchter was concerned about the fact that whenever an emergency standard was issued, OSHA was not permitted to go through the normal, time-consuming process of seeking formal comment from interested groups. So, in the last two months, Mr. Clark said, the agency circulated its risk assessment among scientists in private business to obtain their feelings on the proposal.

Asked why the emergency standard was issued when Mr. Auchter had said earlier that asbestos regulation would be handled through the normal rule-making process, Mr. Clark said, "As we got into it, and produced a risk assessment, it just seemed this was the most appropriate way to go."

Mr. Samuels said he was pleased by the agency's move against asbestos, but added: "The real test is whether they have put into place the enforcement mechanism. It's the quality, rather than the quantity, of enforcement."

Three large asbestos concerns, the Manville Corporation, UNR Industries Inc. and the Amatex Corporation, have filed for bankruptcy law protection in the face of thousands of lawsuits by former workers who claim they contracted respiratory problems as a result of their jobs.

Increasing Concern Voiced

Issuance of the emergency standard was spurred in part by increasing concern about the exposure of construction industry workers to asbestos at work sites where buildings were being demolished. The agency said in October that it was stepping up Government inspections of these sites.

The emergency standard also requires that employers train their workers in the handling of asbestos.

The standard permits wide flexibility on how companies achieve the lower exposure levels. Such methods include removing fibers from workplace sites with suction equipment, reorganizing work practices and furnishing respirators to workers.

Unions contend that strict engineering controls are the best solution to the problem.

Mr. Donovan noted, however, that the Occupational Safety and Health Act required that such health standards call for corrective measures that are "clearly feasible" to industry. Similar standards have been successfully challenged in court by industry.

Mr. Donovan said he agreed that workers were "exposed to grave danger."

Doubts Voiced by Industry

A spokesman for the asbestos industry said last night that producers were "unaware of any scientific proof to sustain any such grave danger" to workers as contended by the Labor Department.

Bob J. Pigg, executive director of the Asbestos Information Association, said in a telephone interview that the industry considered an emergency temporary standard for permissible exposure to asbestos fibers "unneeded and unwarranted."

Mr. Pigg said that although the industry opposed the emergency standard, it would comply by using one or more of several methods, such as supplying breathing apparatus to workers, increasing dust-removal equipment and relocating work stations to places where the exposure level was below the permissible limit. He said it would be difficult to estimate the added cost pending further study.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 7 6

October 25, 1983

ENVIRONMENTAL PROTECTION AGENCY ASBESTOS POLICY

At the September meeting of the Asbestos Information Association (AIA) and in an article in the WALL STREET JOURNAL earlier this month, Environmental Protection Agency (EPA) plans on asbestos were discussed. A copy of the WALL STREET JOURNAL article is enclosed.

The WSJ article reports the EPA approach as follows:

(1) EPA plans to propose a rule to ban certain asbestos product categories: Roofing felt, flooring felt, asbestos-backed vinyl flooring, vinyl asbestos floor tile and asbestos cement pipe and fittings.

(2) In addition, it was reported that EPA intends to propose regulations that will cap the amount of asbestos used in all other asbestos products, with a subsequent time table for phasing out usage over a period of years.

The first part of the EPA plans was unveiled earlier in testimony by Mr. Donald Clay of the Office of Toxic Substances (OTS) in July of this year. The second part of the control technique (capping with subsequent phase out) would of course have a major impact on the friction materials business.

I have attempted for two days to contact the Toxic Substances Control Act Assistance Office for clarification. Their line is either busy or not answered. I have in the meanwhile discussed this with others who state that the WSJ article is inaccurate. They state that Mr. Ruckelshaus had not agreed to this policy. While EPA plans to proceed with the proposed ban on the five asbestos product categories noted, the second part described above is at this stage a staff recommendation and not EPA policy. It is in essence a staff proposal which is being considered. EPA has not decided at this time that the second part is to become policy.

This does not mean that it will not become policy at some later date. The foregoing is sent as a matter of information.

E. W. Drislane

Executive Director

Distribution:
Delegates and Alternates
H.E.A. Committee
Active Members - List B

WALL STREET JOURNAL, October 4, 1983

EPA, in Major Policy Change, to Propose Ban, Phase-Out of Most Asbestos Uses

By Andy Pasztor
Staff Reporter of The Wall Street Journal

WASHINGTON—The Environmental Protection Agency, in a major policy change, intends to propose in the next few months a ban or phase-out of almost all remaining uses of asbestos.

EPA Administrator William Ruckelshaus has agreed in principle with a package of proposed regulations against the carcinogen that goes far beyond any action the Reagan administration was considering only a few months ago, agency officials said.

The EPA intends to ban all uses of certain construction products such as cement pipes, roofing materials and floor coverings that contain asbestos, a fibrous mineral used in fireproof materials. In addition, the agency is writing proposed regulations that cap the amount of asbestos used for all other products and set up a timetable for phasing out all but a few minor uses over the next few years.

The decision indicates Mr. Ruckelshaus's willingness to reverse policies that he believes pose an excessive public health risk, according to career EPA officials who have been advocating such a ban for years. Mr. Ruckelshaus also apparently hopes to convince agency critics in Congress and elsewhere that the EPA is willing to change policies even when the result is likely to be costly for industry. A senior agency policy maker said asbestos is likely to be among EPA's top-priority regulatory issues next year.

In the past, senior Reagan administration appointees at the EPA have argued that there wasn't adequate scientific evidence to warrant tough action against asbestos. They also asserted that banning or phasing out the material would be too costly in most instances, and they wanted voluntary action by industry to reduce public exposure to asbestos.

Edward Klein, director of the office that is drafting the proposals, confirmed in an interview that Mr. Ruckelshaus and his top aides approved the concept some time ago. Mr. Klein said the EPA now considers asbestos to be "a proven carcinogen" that should be phased out quickly. He noted that industry has developed a variety of substitutes for most uses.

Mr. Klein said the agency decided that continued use of asbestos constitutes "an unreasonable" public health hazard. In reaching that decision, the agency considered the cumulative health risks posed by asbestos mining, milling, manufacturing, use and disposal. In the past, Mr. Klein suggested, top agency officials tended to focus primarily on the direct hazards posed by asbestos use in construction and other materials.

In a related development, the Labor Department said its Occupational Safety and Health Administration will expand workplace inspections seeking possible violations of its asbestos exposure rules. The job-safety agency estimated it will triple such inspections to about 700 over the next year in the construction and manufacturing industries, focusing on demolition sites and manufacturers with a high record of asbestos violations.

OSHA said it will inspect demolition sites that have notified the EPA that asbestos demolition or removal will occur. Previously, OSHA inspectors often didn't know about possible asbestos rule violations at such sites because the work was completed quickly. The cooperative effort with the EPA is to last six months.

In the 1970s, the government banned certain sprays containing asbestos used for insulation and decoration of new buildings. And the EPA ordered schools to perform safety checks to determine if fibers from asbestos insulation posed a health threat to students. Recently, the EPA has been under increasing pressure from lawmakers, environmental groups and cancer experts at other federal agencies to crack down on future use of the material.

Despite years of federal efforts to reduce its use, the EPA estimates that about 280 million pounds of asbestos are still used in the U.S. each year, Mr. Klein said.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

September 7, 1983

To: Health and Environmental Affairs Committee

Subject: EPA/OSHA Regulatory moves concerning asbestos

EPA OFFICE OF TOXIC SUBSTANCES (OTS) PLANS ON ASBESTOS

On August 22, 1983 I advised the Committee on a letter from the EPA's Office of Toxic Substances (OTS) concerning testimony on TSCA plans. I indicated that I would contact TSCA asking for copies of the testimony.

The testimony by Mr. Clay of OTS dealt with an update on TSCA responsibilities under Federal Law: Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). In a section of his testimony, Mr. Clay discussed TSCA programs for existing substances, and in this testimony he commented on asbestos. A copy of his testimony on asbestos is enclosed.

Mr. Clay's cover letter was more specific in that he noted the asbestos-containing products which were under consideration for a ban, those being:

Roofing felt (both saturated and unsaturated)
Flooring felt
Asbestos felt-backed vinyl flooring
Vinyl asbestos floor tile
Asbestos cement pipe and fittings

Friction materials are notably absent, but this move under TSCA's authority to ban certain products could be a forerunner of actions to directly affect our industry. It is my understanding that any proposals in this asbestos area are targeted for mid-1984.

OSHA CONSIDERATION OF EMERGENCY RULE ON EXPOSURE TO ASBESTOS

I am enclosing copies of two articles that appeared recently on possible OSHA moves to install tighter limits on occupational exposure to asbestos in the workplace. This action may take the form of invoking an emergency temporary standard that would reduce the TWA exposure level to 0.5 fibers per cc--down from the current limit of 2 fibers.

Copies of the WALL STREET JOURNAL and OCCUPATIONAL SAFETY & HEALTH REPORTER articles on these plans are self-explanatory.

* * * * *

The foregoing is sent as a matter of information.

E. W. Drislane
Executive Director

EWD/dr

Testimony of Mr. Donald R. Clay of EPA's Office of Toxic Substances relating to Asbestos July ~~28~~ 27, 1983

Asbestos has been the subject of OTS activities since the early years of the program. Recently, however, OTS has taken important steps toward consolidating its efforts toward asbestos and ensuring a coordinated approach by the various regulatory authorities concerned with this material. The establishment of an interagency Federal Asbestos Task Force to coordinate Federal efforts concerning asbestos has been a major achievement. The Task Force, which was established last year, is chaired by the Office of Toxic Substances, and includes representatives from OSHA and CPSC. Over the next year, my staff will be working with the Task Force to coordinate asbestos control.

In this regard, OSHA is working to strengthen its workplace standards for asbestos. Complementary to this activity, we plan to publish a proposed rule in the next year banning certain asbestos product categories and we plan to issue either an ANPR or a proposal which would establish a staged production cap on remaining asbestos uses. My staff is also pushing ahead this summer with a survey of asbestos in public buildings to assist us in determining the nature and extent of any problem with friable asbestos material in such places.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 6 8

July 21, 1983

ENVIRONMENTAL PROTECTION AGENCY (EPA) PROPOSED AMENDMENTS TO NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS)

The EPA announced in the FEDERAL REGISTER of July 13, 1983 its proposals for amendment of the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) as applied to its asbestos standard. A copy of the notice is enclosed.

While several of the proposals in this notice pertain to the construction industry, there are sections impacting the asbestos products manufacturing industry. These involve alternate work practices to the no visible emissions standard and proposals in the waste disposal area.

The enclosed is sent as a matter of information.

E. W. Drislane
Executive Director

EWD/dr

Distribution:

Delegates and Alternates
M. E. A. Committee

federal register

Wednesday
July 13, 1983

Part II

Environmental Protection Agency

National Emissions Standards for Hazardous Air Pollutants; Proposed Amendments to Asbestos Standard

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 61

[AD-FRL-3219-4]

National Emission Standards for Hazardous Air Pollutants; Amendments to Asbestos Standard

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Proposed rule and notice of public hearing.

SUMMARY: These proposed amendments to the national emission standard for asbestos would reinstate work practice and equipment provisions of the standard that were held not to be emission standards by the Supreme Court in 1978. They would also reword and rearrange other portions of the standard for clarity.

A public hearing will be held, if requested, to provide interested persons an opportunity for oral presentation of data, views, and arguments concerning the proposed amendments.

DATES: *Comments.* Comments must be received on or before September 9, 1983.

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing by July 27, 1983, a public hearing will be held on August 9, 1983 beginning at 10:00 a.m.

Request to Speak at Hearing. Persons wishing to present oral testimony must contact EPA by August 3, 1983.

ADDRESSES: *Comments.* Comments should be submitted (in duplicate if possible) to: Central Docket Section (LE–131), Attention: Docket Number A–83–02, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Public Hearing. If a public hearing is held, it will be held at the Environmental Research Center Auditorium, Corner of Highway 54 & Alexander Drive, Research Triangle Park, North Carolina. Persons wishing to present oral testimony should notify Mrs. Naomi Durkee, Standards Development Branch (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Docket. Docket number A–83–02, containing supporting information used in developing the proposed amendments, is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M Street, SW., Washington, D.C. 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Gene W. Smith, Standards Development Branch, Emission Standards and Engineering Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, N.C. 27711, telephone number (919) 541–5624.

Persons interested in attending the hearing should call Mrs. Naomi Durkee at (919) 541–5578 to verify that a hearing will occur.

SUPPLEMENTARY INFORMATION: On April 6, 1973 (38 FR 8826), EPA promulgated national emission standards for hazardous air pollutants (NESHAP) for asbestos in Subpart B of 40 CFR Part 61, pursuant to Section 112 of the Clean Air Act, as amended in 1970. Amendments to the NESHAP were promulgated on May 3, 1974 (39 FR 15398), October 14, 1975 (40 FR 48299), and March 2, 1977 (42 FR 12127). Parts of the NESHAP were in the form of work-practice standards, which were later held by the Supreme Court not to be emission standards within the meaning of Section 112, as amended in 1970. *Adamo Wrecking Company v. United States*, 434 U.S. 275 (1978).

On August 7, 1977, Section 112 of the Acts was amended to specifically authorize "design, equipment, work-practice and operational standards," Section 112(e). On June 19, 1978 (43 FR 26372), EPA repromulgated many of the work-practice standards in the NESHAP, pursuant to Section 112, as amended in 1977. The provisions so repromulugated were 40 CFR 61.22(d), (d)(1), (d)(2)(iii), (d)(4)(i)-(iv), (e), (e)(2) (in part), and (e)(3).

Work-practice standards contained in other portions of the NESHAP were not repromulgated in 1978 [§ 61.22(b), (d)(4)(v) and (vi), (d)(6)(iii) and (iv), (f), (i), (j)(2) and (3), (k)(2) and (3), (l)(2)-(5); § 61.23; and § 61.25(b)-(e)]. Some of these paragraphs contain both emission limits and work-practice standards. EPA intended that owners and operators could comply with either the emission limit or the work-practice standards at their option. The emission limits were not affected by the Court's ruling. The rulemaking being proposed today would reinstate the work-practice standards contained in these paragraphs. It would also reinstate the work-practice standards in other paragraphs that do not contain an alternative emission limit.

Many of these privisions are being complied with now, and most owners and operators of asbestos sources are conscientiously minimizing asbestos emission. Therefore, today's proposed action would have minimal adverse economic effects. However, this action is intended to make clear EPA's intent that asbestos emissions be controlled.

Another purpose of the proposed rulemaking is to reword and rearrange various provisions of the NESHAP for clarity. This has resulted in the addition of several sections and the redesignation of the NESHAP as Subpart M. The discussion below, however, will refer to the old paragraph numbering system for ease of understanding. A listing is provided to show the new section numbers in which the provisions contained under the old numbers can be found.

Old Designation (Subpart B) (section)	New Designation (Subpart M) (section)
61.20	61.140
61.21	61.141
61.22	
(a)	61.142
(b)	61.143
(c)	61.144
(d)	61.145
(d)(1)(i)	61.145
(d)(1)(ii)	61.146
(d)(2)	61.146
(d)(3)(i)(A), (B)	61.145
(d)(3)(ii)	61.145
(d)(4)	61.147
(d)(5)	61.145
(d)(6)	61.145
(e)	61.148
(f)	61.142–61.152
(g)	61.141
(h)	61.149
(i)	61.150
(j)	61.152
(k)	61.151
(l)	61.153
61.23	61.154
61.24	61.155
61.25	61.156

The authority and basis for this proposal is contained in Section 112(e) of the Clean Air Act, as amended in 1977. This Section provides that the Administrator may promulgate a "design, equipment, work practice, or operational standard, or combination thereof" for control of a hazardous air pollutant if it is infeasible to prescribe an emission standard under Section 112(b) for the pollutant. Such infeasibility occurs, for example, when "a hazardous pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant" or when "the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations." For some asbestos emission sources affected by this proposed rulemaking, the Administrator finds that it is not feasible to prescribe a numerical emission limitation because the asbestos cannot be emitted through a

conveyance that readily captures emissions for measurement and because such measurement, in any event, would be technologically and economically impracticable. An example of such a source is the emission of asbestos fibers during the demolition of a building containing friable asbestos materials. For other types of asbestos emission sources, a numerical emission limitation would be feasible under certain conditions but not under others. For example, under normal conditions, a waste disposal site could be operated with no visable emissions. Under high-wind conditions, however, visible emissions could occur even if good work procedures were followed. Therefore, a no visable emission limitation that would be achievable under normal operating conditions would be technologically impracticable during windy conditions. Work-practice standards provide an alternative means of compliance that would represent best available technology under these and other abnormal conditions. The Administrator believes it is important to provide alternative work-practice standards for sources that may not always be able to achieve no visible emissions even though they employ good asbestos emission control procedures. Therefore, the proposed amendments to the asbestos standard would reinstate work practice and other non-numerical standards as the only requirement for some asbestos sources and as an alternative to a numerical emission limit for other sources.

Summary of Proposed Amendments

The following sections and paragraphs were either repromulgated in June 1978 or do not contain work practice or equipment requirements. The Agency is proposing only to reword these for clarity. Therefore, only comments regarding the new wording and not the substantive content of these paragraphs will be considered in this rulemaking. The reworded sections and paragraphs are as follows: § 61.20; § 61.21; § 61.22(a), (c), (d)(1)–(3), (d)(4)(i)–(iv) and (vii), (d)(5), (d)(6)(i)–(ii), (e), (g), (h), (j)(1) and (4), (k)(1), (l)(1); § 61.24; § 61.25(a).

The following sections and paragraphs are being proposed for comment on their content as well as being reworded for clarity: § 61.22(b), (d)(4)(v) and (vi), (d)(6)(iii) and (iv), (f), (i), (j)(2) and (3), (k)(2) and (3), (l)(2)-(5); § 61.23; § 61.25(b)-(e). A discussion of these portions of the asbestos NESHAP is presented below.

Alternative Non-numerical Standards

Several of the paragraphs that are being proposed do not impose any new requirements. Some of these reinstate work practice or equipment specifications that are an alternative to the current no visible emissions standard (an emission limit not affected by the 1978 Supreme Court decision). Others reinstate means of compliance that are alternatives to work practice requirements that were repromulgated in June 1978. All of these are being proposed today to reinstate the alternative means of compliance that EPA believes should be available to those who must comply with the asbestos NESHAP. Since these paragraphs do not impose any new requirements, they would not result in adverse economic or energy impacts to source owners and operators. Following is a discussion of these paragraphs.

Section 61.22(d)(4)(vi)

This paragraph reinstates alternative work practices that may be used in lieu of those required in paragraph (d)(4)(ii) (wetting during stripping) during freezing weather. Without this alternative, it might not be possible to carry out demolition operations during freezing weather in some cases. Therefore, beneficial economic impacts may result in those cases, and there would be no adverse economic impacts.

Section 61.22(d)(6)(iii) and (iv).

Paragraph (d)(6) reinstates provisions exempting demolition operations for structurally unsound buildings from most of the NESHAP, although some requirements would apply. Paragraphs (d)(6)(iii) and (iv) contain two of these requirements. The exemption, even with the requirements in paragraphs (d)(6)(iii) and (iv), provides a less restrictive alternative for certain demolition operations. Therefore, proposal of these paragraphs would not result in any adverse economic impacts on demolition operations.

Section 61.22(f), (j)(3), (k)(3)(i) and (ii), (1)(5); § 61.23; and § 61.25(e)

These paragraphs reinstate alternative work practices that may be used in lieu of complying with a no visible emission limit. They would impose no additional costs and, therefore, would result in no adverse economic impacts.

Non-numerical Standards With No Alternatives

The remaining paragraphs being proposed for comment reinstate specific work-practice requirements for which there are no alternatives. EPA believes that these proposed requirements would not impose significant adverse economic impacts on source owners and operators, as discussed below.

Section 61.22(b)

This paragraph reinstates the prohibition of surfacing roadways with asbestos tailings or asbestos-containing waste. This prohibition is not expected to cause serious adverse economic impacts because road surfacing with asbestos tailings or waste materials is not commonly practiced in the United States. The prohibition is necessary, however, to prevent such surfacing in isolated cases.

Section 61.22(d)(4)(v)

This paragraph would reinstate the requirement that asbestos removed during demolition or renovation be kept wet until disposal is completed. It would also require that the asbestos not be dropped or thrown to the ground or a lower floor and that asbestos removed more than 50 feet above level be transported to the ground in dust-tight chutes or containers (unless it is removed in units or sections).

There would be no significant adverse economic impact resulting from this paragraph. Provisions of the asbestos NESHAP that do not require reinstatement require that the asbestos be adequately wetted during stripping and removal. They also require that there be no visible emissions during the collection, handling, and transporting of the asbestos waste. Demolition and renovation contractors typically transport the asbestos they remove from a facility to a waste disposal site on a daily basis. In order to meet no visible emissions during the collecting and transporting activities, they keep the asbestos wet until it is placed into containers and trucks, and they place it into containers as soon as possible to keep it from drying out and unnecessarily exposing workers to asbestos fibers. Therefore, this paragraph would not significantly affect asbestos removal and collection activities that would occur in its absence. EPA believes it is necessary, however, to ensure that effective asbestos emission control techniques are followed after the asbestos is stripped or removed and before it is taken away to a waste disposal site.

Section 61.22(i)

This paragraph reinstates the prohibition of commercial asbestos in certain molded and wet-applied insulating materials. It is not expected to

result in significant adverse economic materials in the United States since economical substitutes are widely available. EPA believes that there is general compliance with this provision but that the prohibition is necessary to make it clear that this use of asbestos should not be reinstituted.

Section 61.22(j)(2) and (k)(2)

These paragraphs simply refer to the requirements of § 61.25. Those portions of § 61.25 that require repromulgation are discussed below.

Section 61.22(1)(2)–(4) and § 61.25(b)–(d)

These paragraphs reinstate the requirement for warning signs and fencing around asbestos waste disposal sites if: (1) The owner or operator chooses to comply with a no visible emission limit rather than follow specified work practices, and (2) there is no natural barrier to deter access by the general public. Most disposal site owners and operators currently follow the work practices specified and thus would not be required by these amendments to install warning signs and fences, although many States require fencing for all landfills. For the few cases where signs and fencing would not be installed in the absence of these proposed paragraphs, the cost of the signs and fences would be minimal when compared to the cost of the disposal site and its operation. Therefore, there would be no significant adverse economic impacts resulting from these paragraphs.

Public Hearing

A public hearing, if requested, will be held to discuss the proposed amendments to the asbestos standard in accordance with Sections 112(b)(1)(B) and 307(d)(5) of the Clean Air Act. Persons wishing to make oral presentations on the proposed amendments should contact EPA at the address given in the **ADDRESSES** section of this preamble. Oral presentations will be limited to 15 minutes each. Any member of the public may file a written statement before, during, or within 30 days after the hearing. Written statements should be addressed to the Central Docket Section address given in the **ADDRESSES** section of this preamble and should refer to docket number A–83–02.

A verbatim transcript of the hearing and written statements will be available for public inspection and copying during normal working hours at EPA's Central Docket Section in Washington, D.C. (see **ADDRESSES** section of this preamble).

Docket

The docket is an organized and complete file of all the information submitted to or otherwise considered by EPA in the development of this proposed rulemaking. The principal purposes of the docket are: (1) To allow interested parties to identify readily and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review, except for interagency review materials [§ 307(d)(7)(A)].

Miscellaneous

The Administrator will welcome comments on all aspects of the proposed amendments in § 61.22(b), (d)(4)(v) and (vi), (d)(6)(iii) and (iv), (f), (i), (j)(2) and (3), (k)(2) and (3), (1)(2–5); § 61.23; and § 61.25(b)–(e), including economic and technological issues. For proposed amendments to the remaining portions of the asbestos standard, only comments pertaining to the rewording and rearranging of those portions will be considered by the Administrator.

This regulation will be reviewed within 5 years from the date of promulgation. This review will include an assessment of such factors as the need for intergration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and reporting requirements.

Under E.O. 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it does not meet any of the criteria specified in the Executive Order regarding the annual effect on the economy; increase in cost or prices; or adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S. enterprises to compete with foreign enterprises.

These information collection requirements have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq* and have been assigned OMB control number 2000–0264.

This regulation was submitted to the Office of Management and Budget (OMB) for review as required by E.O. 12291.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities because no significant impact will result.

Dated: June 29, 1983.

William D. Ruckelshaus,

Administrator.

PART 61—[AMENDED]

It is proposed to amend 40 CFR Part 61 by redesignating Subpart B (§§ 61.20–61.25) as Subpart M and revising New Subpart M to read as follows:

Subpart M—National Emission Standard for Asbestos

Sec.

Authority: Sec. 112 and 301(a) of the Clean Air Act, as amended (42 U.S.C. 7412, 7601(a)), and additional authority as noted below.

Subpart M—National Emission Standard for Asbestos

§ 61.140 Applicability

The provisions of this subpart are applicable to those sources specified in §§ 61.142 through 61.153.

§ 61.141 Definitions

All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in Subpart A of this part.

Active waste disposal site means any disposal site other than an inactive site.

Adequately wetted means sufficiently mixed or coated with water or an aqueous solution to prevent dust emissions.

Asbestos means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actionlite-tremolite.

Asbestos-containing waste material means any waste that contains commercial asbestos and is generated by a source subject to the provisions of

this subpart. This term includes asbestos mill tailings, asbestos waste from control devices, friable asbestos waste material, and bags or containers that previously contained commercial asbestos. However, as applied to demolition and renovation operations, this term includes only friable asbestos waste and asbestos waste from control devices.

Asbestos material means asbestos or any material containing asbestos.

Asbestos mill means any facility engaged in converting asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

Asbestos tailings means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

Asbestos waste from control devices means any waste material that contains asbestos and is collected in a pollution control device.

Commercial asbestos means any asbestos that is extracted from asbestos ore.

Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

Emergency renovation operation means a renovation operation that was not planned but results from a sudden, unexpected event. This term includes operations necessitated by nonroutine failures of equipment.

Fabricating means any processing of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites for the construction or restoration of facilities.

Facility means any institutional, commercial, or industrial structure, installation, or building (including apartment buildings having more than four dwelling units).

Friable asbestos material means any material containing more than 1 percent asbestos by weight that hand pressure can crumble, pulverize, or reduce to powder when dry.

Functional member means any pipe, duct, boiler, tank, reactor, turbine, or furnace at or in a facility.

Inactive waste disposal site means any disposal site or portion of it where additional asbestos-containing waste material will not be deposited and where the surface is not disturbed by vehicular traffic.

Manufacturing means the combining of commercial asbestos—or, in the case of woven friction products, the combining of textiles containing commercial asbestos—with any other material(s), including commercial asbestos, and the processing of this combination into a product.

Outside air means the air outside buildings and structures.

Particulate asbestos material means divided particles of asbestos material.

Planned renovation operation means a renovation operation, or a number of such operations, in which the amount of friable asbestos material that will be removed or stripped within a given period of time can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time.

Remove means to take out friable asbestos materials from any facility.

Renovation means refurbishing that includes the removal of friable asbestos materials.

Roadways means surfaces on which motor vehicles travel. This term includes highways, roads, streets, parking areas, and driveways.

Strip means to take off friable asbestos materials from any part of a facility.

Structural member means any load-supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

Visible emissions means any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

§ 61.142 Standard for asbestos mills.

Each owner or operator of an asbestos mill shall either discharge no visible emissions to the outside air from that asbestos mill or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.143 Standard for roadways.

No owner or operator of a roadway may deposit asbestos tailings or asbestos-containing waste material on that roadway, unless it is a temporary roadway on an area of asbestos ore deposits.

§ 61.144 Standard for manufacturing.

(a) *Applicability:* This section applies to the following manufacturing operations using commercial asbestos:

(1) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.

(2) The manufacture of cement products.

(3) The manufacture of fireproofing and insulating materials.

(4) The manufacture of friction products.

(5) The manufacture of paper, millboard, and felt.

(6) The manufacture of floor tile.

(7) The manufacture of paints, coatings, caulks, adhesives, and sealants.

(8) The manufacture of plastics and rubber materials.

(9) The manufacture of chlorine.

(10) The manufacture of shotgun shell wads.

(11) The manufacture of asphalt concrete.

(b) *Standard:* Each owner or operator of any of the manufacturing operations to which this section applies shall either:

(1) Discharge no visible emissions to the outside air from these operations or from any building or structure in which they are conducted; or

(2) Use the methods specified by § 61.154 to clean emissions from these operations containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.145 Standard for demolition and renovation: Applicability.

The requirements of §§ 61.146 and 61.147 apply to each owner or operator of a demolition or renovation operation as follows:

(a) If the amount of friable asbestos materials in a facility being demolished is at least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on structural or other functional members, all the requirements of §§ 61.146 and 61.147 apply, except as provided in paragraph (c) of this section.

(b) If the amount of friable asbestos materials in a facility being demolished is less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on structural and other functional members, only the notification requirements of paragraphs (a), (b), and (c) (1), (2), (3), (4), and (5) of § 61.146 apply.

(c) If the facility is being demolished under an order of a State or local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements in § 61.146 and in paragraphs (d), (e), and (f) of § 61.147 apply.

(d) If more than 80 linear meters (260 linear feet) of friable asbestos materials on pipes or more than 15 square meters (160 square feet) of friable asbestos materials on other functional and structural members are stripped or

removed at a facility being renovated, all the requirements of §§ 61.146 and 61.147 apply.

(1) To determine whether paragraph (d) of this section applies to planned renovation operations involving individual nonscheduled operations, predict the additive amount of friable asbestos materials to be removed or stripped over the maximum period of time a prediction can be made, not to exceed 1 year.

(2) To determine whether paragraph (d) of this section applies to emergency renovation operations, estimate the amount of friable asbestos materials to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.

(e) Owners or operators or demolition and renovation operations are exempt from the requirements of §§ 61.05(a), 61.07, and 61.09.

§ 61.146 Standard for demolition and renovation: Notification requirements.

Each owner or operator to which this section applies shall:

(a) Provide the Administrator with written notice of intention to demolish or renovate.

(b) Postmark or deliver the notice as follows:

(1) At least 10 days before demolition begins if the operation is described in § 61.145(a);

(2) At least 20 days before demolition begins if the operation is described in § 61.145(b);

(3) As early as possible before demolition begins if the operation is described in § 61.145(c);

(4) As early as possible before renovation begins.

(c) Include the following information in the notice:

(1) Name and address of owner or operator.

(2) Description of the facility being demolished or renovated, including the size, age, and prior use of the facility.

(3) Estimate of the approximate amount of friable asbestos material present in the facility. For facilities descried in § 61.145(b), explain techniques of estimation.

(4) Location of the facility being demonlished or renovated.

(5) Scheduled starting and completion dates of demolition or renovation.

(6) Nature of planned demolition or renovation and method(s) to be used.

(7) Procedures to be used to comply with the requirements of this section.

(8) Name and location of the waste disposal site where the friable asbestos waste material will be deposited.

(9) For facilities described in § 61.145(c), the name, title, and authority of the State or local governmental representative who has ordered the demolition.

§ 61.147 Standard for demolition and renovation: Procedures for asbestos emission control.

Each owner or operator to whom this section applies shall comply with the following procedures to prevent emissions of particulate asbestos material to the outside air:

(a) Remove friable asbestos material from a facility being demolished before any wrecking or dismantling that would break up the materials or preclude access to the materials for subsequent removal. However, friable asbestos materials need not be removed before demolition if:

(1) They are in a structural or functional member that is encased in concrete or other similar material; and

(2) These materials are adequately wetted whenever exposed during demolition.

(b) When a functional or structural member covered or coated with friable asbestos materials is being taken out of the facility as units or in sections:

(1) Adequately wet any friable asbestos materials exposed during cutting or disjointing opeations; and

(2) Carefully lower the units or sections to ground level, not dropping them or throwing them.

(c) Adequately wet friable asbestos materials when they are being stripped from functional or structural members before the members are removed from the facility. In renovation operations, wetting that would unavoidably damage equipment is not required if the owner or operator:

(1) Asks the Administrator to determine whether wetting to comply with this paragraph would unavoidably damage equipment, and, before beginning to strip, supplies the Administrator with adequate information to make this determination; and

(2) When the Administrator does determine that equipment damage would be unavoidable, uses a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the friable asbestos materials. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in § 61.154.

(d) After a functional or structural member has been taken out of the facility as units or in sections, either:

(1) Adequately wet friable asbestos materials during stripping; or

(2) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in § 61.154.

(e) For friable asbestos materials that have been removed or stripped:

(1) Adequately wet the materials to ensure that they remain wet during all remaining stages of demolition or renovation and related handling operations; and

(2) Carfully lower the materials to the ground or a lower floor, not dropping or throwing them; and

(3) Transport the materials the ground via dust-tight chutes or containers if they have been removed or stripped more than 50 feet above ground level and were not removed as units or in sections.

(f) When the temperature at the point of wetting is below 0°C (32°F):

(1) Comply with the requirements of paragraphs (d) and (e) of this section. The owner or operator need not comply with the other wetting requirements in this section; and

(2) Remove functional and structural members coated or covered with friable asbestos materials as units or in sections to the maximum extent possible.

(g) For facilities described in § 61.145(c), adequately wet the portion of the facility that contains friable asbestos materials during the wrecking operation.

§ 61.148 Standard for spraying.

The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

(a) Use materials that contain 1 percent asbestos or less on a dry weight basis for spray-on application on buildings, structures, pipes, and conduits, except as provided in paragraph (c) of this section.

(b) For spray-on application of materials that contain more than 1 percent asbestos on a dry weight basis on equipment and machinery, except as provided in paragraph (c) of this section:

(1) Notify the Administrator at least 20 days before beginning the spraying operation. Include the following information in the notice:

(i) Name and address of owner or operator.

(ii) Location of spraying operation.

(iii) Procedures to be followed to meet the requirements of this paragraph.

(2) Discharge no visible emissions to the outside air from the spray-on application of the asbestos-containing material or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(c) The requirements of paragraphs (a) and (b) of this section do not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying.

(d) Owners and operators of sources subject to this paragraph are exempt from the requirements of §§ 61.05(a), 61.07, and 61.09.

§ 61.149 Standard for fabricating.

(a) *Applicability.* This section applies to the following fabricating operations using commercial asbestos:

(1) The fabrication of cement building products.

(2) The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles.

(3) The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture, bulkheads, partitions, and ceilings for marine construction; and flow control devices for the molten metal industry.

(b) *Standard.* Each owner or operator of any of the fabricating operations to which this section applies shall either:

(1) Discharge no visible emissions to the outside air from any of the operations or from any building or structure in which they are conducted; or

(2) Use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

§ 61.150 Standard for insulating materials.

After the effective date of this regulation, no owner or operator may install insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this paragraph do not apply to spray-applied insulating materials regulated under § 61.148.

§ 61.151 Standard for waste disposal for asbestos mills.

Each owner or operator of any source covered under the provisions of §61.142 shall:

(a) Deposit all asbestos-containing waste material at waste disposal sites operated in accordance with the provisions of § 61.156; and

(b) Discharge no visible emissions to the outside air from the transfer of asbestos waste from control devices to the tailings conveyor, or use the methods specified by § 61.154 to clean emissions containing particulate particuate asbestos material before they escape to, or are vented to, the outside air. Dispose of the asbestos waste from control devices in accordance with §61.152(b) or paragraph (c) of this section; and

(c) Discharge no visible emissions to the outside air during the collection, processing, packaging, transporting, or deposition of any asbestos-containing waste material, or use one of the disposal methods specified in paragraphs (c)(1) or (2) of this section, as follows:

(1) Use a wetting agent as follows:

(i) Adequately mix all asbestos-containing waste material with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, before depositing the material at a waste disposal site. Use the agent as recommended for the particular dust by the manufacturer of the agent.

(ii) Discharge no visible emissions to the outside air from the wetting operation or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(iii) Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5°C (15°F). Determine the ambient air temperature by an appropriate measurement method with an accuracy of ±1°C (±2°F), and record it at least hourly while the wetting operation is suspended. Keep the records for at least 2 years in a form suitable for inspection.

(2) Use an alternative disposal method that has received prior approval by the Administrator.

§ 61.152 Standard for waste disposal for manufacturing, demolition, renovation, spraying, and fabricating operations.

Each owner or operator of any source covered under the provisions of §§ 61.144–61.149 shall:

(a) Deposit all asbestos-containing waste material at waste disposal sites operated in accordance with the provisions of § 61.156; and

(b) Discharge no visible emissions to the outside air during the collection, processing (inclucing incineration), packaging, transporting, or deposition of any asbestos-containing waste material generated by the source, or use one of the disposal methods specified in paragraphs (b)(1), (2), or (3) of this section, as follows:

(1) Treat asbestos-containing waste material with water:

(i) Mix asbestos waste from control devices with water to form a slurry; adequately wet other asbestos-containing waste material; and

(ii) Discharge no visible emissions to the outside air from collection, mixing, and wetting operations, or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

(iii) After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; and

(iv) Label the containers specified in paragraph (b)(i)(iii) as follows:

CAUTION

Contains Asbestos

Avoid Opening or

Breaking Container

Breathing Asbestos is Hazardous

to Your Health

Alternatively, use warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(g)(2)(ii).

(2) Process asbestos-containing waste material into nonfriable forms:

(i) Form all asbestos-containing waste material into nonfriable pellets or other shapes; and

(ii) Discharge no visible emissions to the outside air from collection and processing operations, or use the methods specified by § 61.154 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(3) Use an alternative disposal method that has received prior approval by the Administrator.

§ 61.153 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.

Each owner or operator of any inactive waste disposal site that was operated by sources covered under §§ 61.142, 61.144, or 61.149 and received deposits of asbestos-containing waste material generated by the sources, shall

(a) Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted

nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material: or

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or

(4) For inactive waste disposal sites for asbestos tailings, apply a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Use the agent as recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent. Obtain prior approval of the Administrator to use other equally effective dust suppression agents. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

(b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this section.

(1) Display warning signs at all entrances and at intervals of 100 m (330 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements for 51 cm × 36 cm (20" × 14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust	1.9 cm (¾ inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health.	14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) Fence the perimeter of the site in a manner adquate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of paragraph (a) or (b) of this section.

§ 61.154 Air-cleaning.

(a) The owner or operator who elects to use air-cleaning, as permitted by §§ 61.142, 61.144, 61.147(c)(2), 61.147(d)(2), 61.148(b)(2), 61.149(b), 61.150(b)(1)(ii), and 61.150(b)(2)(ii) shall:

(1) Use fabric filter collection devices, except as noted in paragraph (b) of this section, doing all of the following:

(i) Operating the fabric filter collection devices at a pressure drop of no more than 4 inches water gage, as measured across the filter fabric; and

(ii) Ensuring that the airflow permeability, as determined by ASIM Method D737–75, does not exceed 9 m^3/min/m^2 (30 $ft^3/min/ft^2$) for woven fabrics or 11$m^3/min/m^2$ (35 $ft^3/min/ft^2$) for felted fabrics, except that 12 m^3/min/m^2 (40 $ft^3/min/ft^2$) for woven and 14 $m^3/min/m^2$ (45 $ft^3/min/ft^2$) for felted fabrics is allowed for filtering air from asbestos ore dryers; and

(iii) Ensuring that each square meter of felted fabric weighs at least 237 grams (14 ounces) and is at least one-sixteenth inch thick throughout; and

(iv) Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun.

(2) Properly install, use, operate, and maintain all air-cleaning equipment authorized by this section. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.

(b) There are the following exceptions to paragraph (a)(1):

(1) If the use of fabric filters creates a fire or explosion hazard, the Administrator may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals.

(2) The Administrator may authorize the use of filtering equipment other than that described in paragraphs (a)(1) and (b)(1) of this section if the owner or operator demonstrates to the Administrator's satisfaction that it is equivalent to the described equipment in filtering particulate asbestos material.

§ 61.155 Reporting.

(a) Within 90 days after the effective date of this subpart, each owner or operator of any existing source to which this subpart applies shall provide the following information to the Administrator:

(1) A description of the emission control equipment used for each process; and

(2) If a fabric filter device is used to control emissions, the pressure drop across the fabric filter in inches water gage; and

(i) If the fabric filter device uses a woven fabric, the airflow permeability in $m^3/min/m^2$ and; if the fabric is synthetic, whether the fill yard is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m^2, the minimum thickness in inches, and the airflow permeability in $m^3/min/m^2$.

(3) For sources subject to §§ 61.151 and 61.152:

(i) A brief description of each process that generates asbestos-containing waste material; and

(ii) The average weight of asbestos-containing waste material disposed of, measured in kg/day; and

(iii) The emission control methods used in all stages of waste disposal; and

(iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.

(4) For sources subject to § 61.153:

(i) A brief description of the site; and

(ii) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information required by paragraph (a) of this section must accompany the information required by § 61.10. The information described in this section must be reported using the format of Appendix A of this part.

(Sec. 114, Clean Air Act as amended (42 U.S.C. 7414)

§ 61.156 Active waste disposal sites.

To be an acceptable site for disposal of asbestos-containing waste material under §§ 61.151 and 61.152, an active waste disposal site must meet the requirements of this section.

(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.

(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) or (c)(2) of this section must be met.

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements of 51 cm × 36 cm (20" × 14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust	1.9 cm (¾ inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, an active waste disposal site would be an acceptable site if at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbetos-containing waste material which was deposited at the site during the operating day or previous 24-hour period is covered with either:

(1) At least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or

(2) A resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. This agent must be used as recommended for the particular dust by the manufacturer of the dust suppression agent. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, waste crankcase oil is not considered a dust suppression agent.

(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, an active waste disposal site would be an acceptable site if an alternative control method for emissions that has received prior approval by the Administrator is used.

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[FR Doc. 83-18716 Filed 7-12-83; 8:45 am]
BILLING CODE 6560-50-M

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

June 2, 1983

To: Health and Environmental Affairs Committee

Subject: Asbestos International Association Recommended Control Procedure for Asbestos-Containing Friction Materials

Mr. Bob Pigg of the Asbestos Information Association sent along Recommended Control Procedure No. 10 (RCP 10) that was published in February 1983 by the Asbestos International Association of London, England.

I am enclosing a copy of that Procedure. As the British publish on a page size differing from our 8-1/2 x 11, I have copied this on legal size paper. You will note that some of the terms are more British than ours, and that some of the background comments are more general, as our "Friction Materials Work Practices Guide" was aimed at United States shops.

This is sent as a matter of information.

E. W. Drislane
Executive Director

EWD/dr
Enc.

AIA-Health and Safety Publication
Recommended Control Procedure No.10 (RCP 10)

ASBESTOS-CONTAINING FRICTION MATERIALS Application and Servicing

1. Application of these recommendations

These recommendations are intended for the guidance of those engaged in the assembly, application and servicing of friction materials containing asbestos fibre. For the manufacture of such materials other procedures are applicable and controls recommended for manufacturers may be found in relevant AIA publications.

2. Products covered by these recommendations

Asbestos-containing friction material (moulded and woven) such as:

Brake lining materials in roll, strip or sheet form.

Brake blocks.

Brake liners

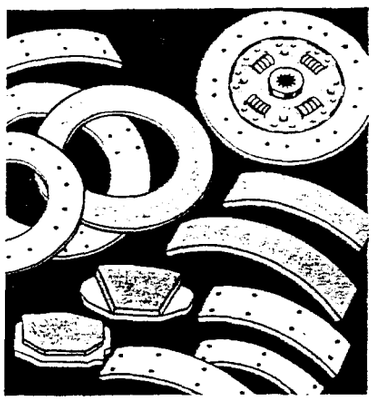
Brake lining segments.

Disc brake pads.

Clutch facings.

Automotive transmission discs and band liners.

Industrial brake linings and clutch facings.



3. Basic requirements for working with asbestos-containing friction material

3.1 Harmful effects on health from working with asbestos-containing friction materials can only result from the inhalation of asbestos respirable fine dust.

3.2 In friction materials the asbestos content is variable, generally from 30% to 60%. In all cases the asbestos fibres are locked in the binder and the product does not release any free respirable fibres under normal handling conditions. The only occasions when such fibres can be released into the atmosphere in significant quantities occur when high-speed cutting, grinding or drilling are carried out *without* the provision of proper controls as described hereunder.

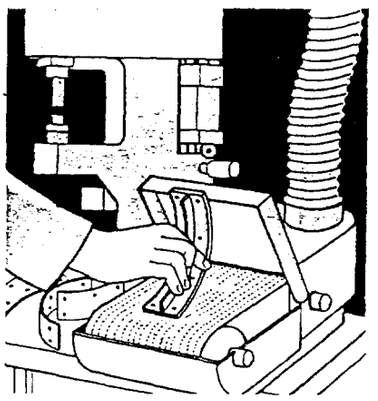
3.3 Only a very small percentage of asbestos fibre can be traced in the wear products of brake linings. Temperature, pressure and 'micro-milling' during braking operations convert the asbestos fibre into a non-crystalline amorphous material which represents no hazard. In case of doubt, concentrations of dust should be measured and analysed in order to ensure that they do not exceed the values prescribed by the Authorities.

4. Operations covered by the recommendations

Handling and machining of asbestos-containing friction material in the automotive and brake and clutch industry and in the maintenance and repair of brake and clutch assemblies, such as:

grinding
cutting
drilling
sawing
fitting
machining or linishing*
cleaning

*'linishing' is a process in which a fine grinding finish is applied



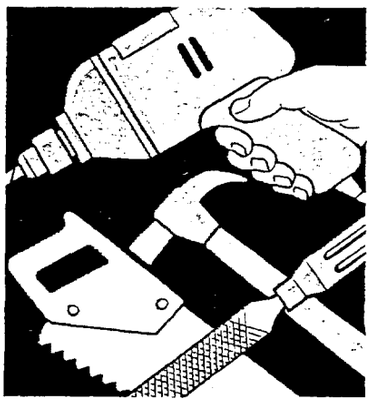
5. Recommended procedure for avoiding creation of dust in the use of asbestos-containing friction material

5.1 Remember the three main rules for eliminating any risks:

First: avoid creating dust and use *hand tools or slow running* tools which only produce coarse dust or chips; do not normally use tools which cut by abrading the material, thus generating inhalable dust;

Second: when it is necessary to use abrasive or high-speed tools, these should be fitted with dust extraction equipment suitable for use with asbestos;

Third: use local vacuum cleaning equipment (approved for use with asbestos dust) to collect dust and chips; or sweep using a dust suppresant.

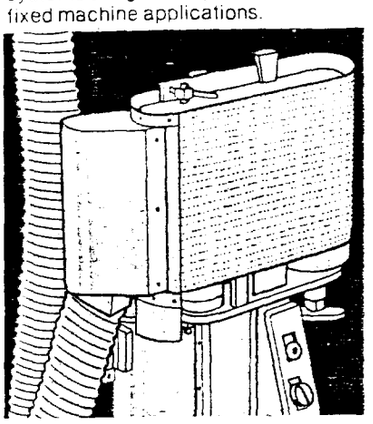


5.2 Handling, transporting, warehousing of new friction materials. Asbestos-containing friction materials supplied in boxed sets should be de-dusted by the manufacturer before packing, and therefore should not require special precautions in handling. When they are delivered in bulk quantities abrasion may result. Dust should be removed by *vacuuming*.

5.3 Work under factory or workshop conditions

5.3.1 Approved dust extraction equipment should be fitted to every cutting, drilling or grinding machine to eliminate dust and loose swarf created by such operations. High velocity, low volume equipment should be used for portable tools; industrial vacuum

cleaners are adaptable for such purposes. Low-velocity, high volume systems are generally most suitable for fixed machine applications.

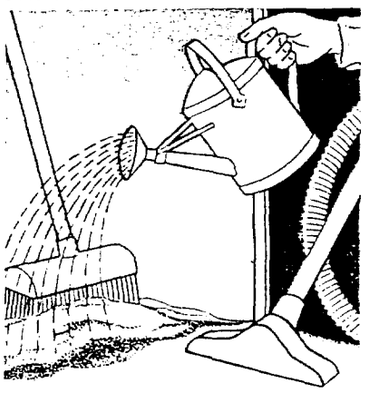


5.3.2 During application friction material dust occurs and accumulates in brake and clutch assemblies.

When removing worn friction material, remove the accumulated dust from the brake assemblies with an industrial vacuum cleaner or washing equipment. If such equipment is not available, dust must be removed with a damp cloth. Never use compressed air or dry brushing.

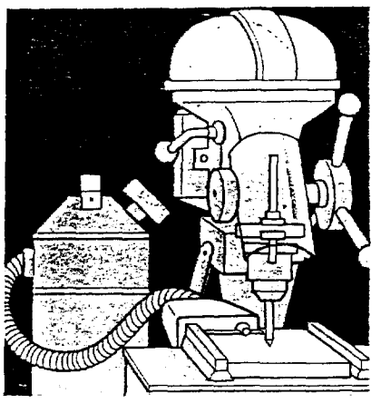
Certain industrial vacuum equipment manufacturers have developed apparatus specially designed for use in the removal of worn brake linings and the cleaning out of brake drums. Such equipment may be of interest to organisations where this work is regularly carried out. Further details can be obtained from Member Associations of the AIA.

5.3.3 Loose swarf and dust should be removed from the work place by vacuum cleaning. Where this is not possible the material should be thoroughly wetted before removal.



5.3.4 Working-areas should be kept free from dust by means of a cleaning attachment available for use with the installed exhaust ventilating system, or by using portable industrial vacuum cleaning machines suitable for use with asbestos materials. If these are not available, floors should be thoroughly wetted and/or spread with damp sawdust before sweeping.

5.3.5 There will be some operations such as the maintenance of dust filters, etc., where it is necessary for personnel to be provided with appropriate individual protective equipment.



5.3.6 Suitable equipment:

- dust extraction
- vacuum cleaning
- specialised turning equipment
- personal protective equipment

Full details of suppliers of suitable equipment which has been tested for use with products together with advice on the design and specification of such equipment may be obtained from AIA or from the Association's members. They will be pleased to supply names and addresses of national suppliers of such equipment.

5.4 Do-it-yourself operations

Simple replacement of brake shoes or disc brakes is unlikely to be a source of dust emission. The do-it-yourselfer is unlikely to have access to equipment as described in 5.3.2, but wear products can satisfactorily be removed from brake assemblies with a damp cloth. It is generally preferable, in the interests of road safety, for work on braking systems to be undertaken by properly qualified and equipped operators.

6. Waste Disposal

6.1 Loose swarf and dust collected from fabrication processes should be collected for disposal in a controlled manner and in accordance with regulations where these exist. Strong plastic bags are a suitable form of impermeable container (see RCP3).

6.2 Broken and worn linings will not normally produce harmful quantities of dust. However, to avoid unnecessary anxiety (and in some countries to comply with legal requirements), where such waste materials occur in quantity they should be collected and disposed of in a controlled manner, and in accordance with regulations where these exist (see RCP3).

7. General

Further information on any aspect of safe working with asbestos-containing friction material will gladly be supplied by the Asbestos International Association or by any of the Association members whose addresses are contained elsewhere in this publication.

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Mr. Edward W. Drislane
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

May 18, 1983

Dear Ed:

Attached is a copy of the proposed Health and Environmental Affairs Committee report for presentation to the Board and Membership at the upcoming annual meeting.

If certain sections look familiar, it is because you did an excellent job of summarizing the Committee's activity this year, of which I took advantage.

Due to my heavy involvement with the Bendix/Allied merger, there is currently a 50-50 chance I will not be in attendance. Would you please advise on the final date to which you are committed for confirmed reservations.

Sincerely,

James W. Armstrong
Corporate Director,
Safety & Protection Services

JWA:bh

Attachment

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

May 23, 1983

Mr. J. W. Armstrong
Bendix Corporation
Bendix Center
P.O. Box 5060
Southfield, MI 48037

Dear Jim:

Thank you for your report.

If you do have to cancel out, I would need your cancellation by Wednesday June 8. If it turns up later, still give me a call and I will try to cancel without penalty.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

MEMBERSHIP REPRESENTATIVES:

Robert M. Tami	Carlisle Corporation (Motion Control Industries)
Carmen A. Morello	Thiokol Corporation
George J. Bohrer	H. K. Porter Company
Charles H. Borcherding	Abex Corporation
John O. Pearson	Raybestos-Manhattan, Inc.
David E. Stone	Bendix Corporation
Rita Grisham	Nuturn Corporation
James W. Armstrong	Bendix Corporation

Since the last Committee report, there have been two additions to the Committee: Mr. Robert Tami, Motion Control Industries, Carlisle Corporation and Mrs. Rita Grisham, Nuturn Corporation. Mr. Carmen Morello replaced Mr. Richard Dean on the Committee (both from Thiokol).

Committee and Institute actions in support of the membership since the last annual meeting:

- A draft report of the NIOSH Report, prepared by Mount Sinai entitled "Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos," was circulated to the Committee. Despite the purpose of the study, no specific results linking brake repair workers to excess incidence of asbestos-related diseases was developed.

- The Institute distributed to the Membership OSHA guidelines for handling repeated violations of OSHA regulations. These guidelines were set up to "assure uniform and effective administration" of OSHA's repeated citation policy.

- The EPA released its final rule on asbestos reporting requirements for Primary and Secondary Processors of asbestos products in July 1982. The Institute advised the Membership on this final rule and sent Members copies of the forms necessary for compliance with the reporting requirements.

- Based on the presentation that Dave Pullen gave for the Asbestos Compensation Coalition at the June 1982 meeting, the Institute gathered and distributed to the Membership copies of the Coalition's draft bill and draft implementing resolution for asbestos-related disease compensation. The Coalition was subsequently disbanded and a new group was formed: Committee for Equitable Compensation. Any movement on a federal compensation law is now centered on Representative Miller's proposed legislation on compensation. While no party is now sponsoring the Coalition's "Occupational Disease Compensation Improvement Act," parts are now being redrafted.

- In April 1983, OSHA advised that it plans to accelerate its schedule for revision of Permissible Exposure Levels (PEL) for asbestos. The Institute advised the Membership of this change in OSHA plans and sent along a copy of background material on the OSHA plans. OSHA intends to publish a notice to hold hearings on revision of the OSHA asbestos standard and these hearings may be scheduled in the very near future with the promulgation of new standards as early as the first of the year.

Issues still facing the Committee and its membership for the future:

- With a new administration head at EPA, we can expect more regulations and stricter enforcement in the handling and disposal of materials.

- Superfund activity for contributions for its cleanup of old waste disposal sites will continue with those companies involved paying for the major cost of cleanup activity.

- There will be more efforts to introduce legislation for compensation for asbestos-related disease.

- Each company can expect to find more product liability claims and more difficulty in acquiring insurance coverages related to asbestos diseases.

Respectfully submitted,

J. W. Armstrong

7813B

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 5 9

April 28, 1983

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) PLANS TO ACCELERATE SCHEDULE FOR REVISION OF PERMISSIBLE EXPOSURE LIMIT FOR ASBESTOS

We are enclosing copies of article notices and correspondence relating to OSHA's recently announced plans to accelerate its schedule for revision of the asbestos standard. Specifically, OSHA intends to publish a notice in late May or early June to hold hearings on revision of the OSHA asbestos standard.

While the hearings will be extensive in scope, two important intentions of the hearings will be:

(1) A review of OSHA's Notice of Proposed Rulemaking of October 9, 1975 with emphasis on reduction of the permissible exposure level (PEL) to airborne concentrations of asbestos fibers from 2 fibers per cc to 0.5 fibers per cc, 8 hour time weighted average (TWA). The peak or ceiling concentration would also be reduced. In addition, other items in the October 9, 1975 notice will be updated.

(2) Expansion of the scope of the October 9, 1975 notice to include the construction industry as well as manufacturers of asbestos products. (The original October 1975 notice did not apply to the construction industry.)

Our enclosures on OSHA's plans for revision of the asbestos standard do not include the correspondence between Mr. Auchter, Assistant Secretary for Occupational Safety and Health and individuals of the AFL-CIO. The enclosures with this Bulletin are as follows:

1. April 8, 1983 article in the NEW YORK TIMES.

2. Asbestos Information Association (AIA) Notice of April 14, 1983 to its Members concerning OSHA's plans to accelerate the schedule for revision of the asbestos standard.

3. Letter from Mr. Bob Pigg of AIA to Mr. Thorne Auchter of OSHA concerning this proposed new schedule for revision of the asbestos standard.

4. Draft copy of letter suggested by the AIA to concerned parties' Congressmen on these proposed changes.

This package of information was sent to the Institute by the AIA. They would most obviously welcome support of correspondence to individual Congressmen. Without elaborating on the problems of acceleration of changes to the asbestos standard, there are several considerations which apply to any such changes.

Expansion of the standard to the construction industry which has the greatest number of workers exposed to asbestos will delay establishment of a more appropriate work practices related standard for that industry. The construction industry differs from the much smaller asbestos products manufacturing industry because of the smaller number of employees per employer, the transient nature of the work force, and the lack of a fixed site including the problem of outdoor work. The preferred approach for control of asbestos would be to first establish a standard for the larger construction industry before zeroing in once more on the asbestos product industry.

Also of concern is the difficulty in reproducing asbestos fiber counts by the membrane filter method when the counts are in the 1 fiber per cc range. AIA particularly noted the difficulty in reliably measuring low concentrations of asbestos based on a round robin study of the membrane filter method among its Members.

Another consideration is that Great Britain, which pioneered in studies and regulation of asbestos in the workplace, has a 1.0 fiber per cc PEL for chrysotile asbestos. Great Britain and the Province of Ontario are making ongoing assessments of asbestos exposure, and their reports on these studies should be available in the Summer of 1983. The results of such assessments would certainly be of help to OSHA in its considerations of any amendments to the TEL.

Theforegoing information and comments are sent to the Members for its information and consideration. If one is to write ones Congressman, it is suggested that the "Draft" letter be modified to reflect the writer's specific concerns applicable to its facility.

E. W. Drislane
Executive Secretary

EWD/dr

Copies:
Delegates and Alternates
H. E. A. Committee
Active Members - List B
Licensees (U. S.)

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 4 5

September 24, 1982

FORMS FOR EPA ASBESTOS REPORTING REQUIREMENTS

The Institute released BULLETIN NO. 741 on August 4, 1982, advising that the EPA had published its Final Rule on Asbestos Reporting Requirements in the FEDERAL REGISTER on July 30, 1982. A copy of the Final Notice was distributed with that bulletin.

At that time, we contacted the EPA and asked for copies of the necessary forms, or at least better illustrations thereof. We have now received copies of the Forms and Instructions from EPA. The Forms and Instructions are:

1. Instruction Booklet for EPA Form 7710-36, "Reporting Commercial and Industrial Uses of Asbestos".

2. EPA Form 7710-36, Reporting Commercial and Industrial Uses of Asbestos (Primary Processor Form).

3. EPA Form 7710-37, Reporting Secondary Processing and Importation of Asbestos Mixtures.

Copies of the above three items are enclosed. If additional forms are needed, one should call the EPA toll free at 800-424-9065.

The foregoing and enclosed are sent as a matter of information.

E. W. Drislane
Executive Director

EWD/dr

Copies to:
Delegates and Alternates
Active Members - List B
Regional Members (U.S. Dues)

REPORTING SECONDARY PROCESSING AND IMPORTATION OF ASBESTOS MIXTURES

INSTRUCTIONS

This form is to be completed by persons who, in 1981, were secondary processors of asbestos or importers of asbestos mixtures or articles that contain asbestos components. See "Reporting Commercial and Industrial Uses of Asbestos", 40 CFR Part 763, Subpart D, for a full description of the reporting requirement and reporting schedule.

If additional space is needed, you should use additional copies of this form.

WHO MUST COMPLETE EPA FORM 7710-37

1. Secondary processors of asbestos must complete Part I and II of the form. Each plant site or manufacturing facility must be reported separately. If you process bulk asbestos fiber to make any of your products at this plant site, then you are a PRIMARY PROCESSOR and you should report this plant site on EPA Form 7710-36.
2. Importers of asbestos mixture(s) or article(s) containing asbestos components must complete Part I and III of the form. If you import bulk asbestos fiber, then you should report all importation activities on EPA Form 7710-36.
3. Those who are both secondary processors and importers must complete Parts I, II and III of the form.

DEFINITIONS

1. Asbestos Mixture - means a mixture which contains bulk asbestos or another mixture. Section 2 below lists typical terms for asbestos mixtures.

2. Asbestos Component—means any asbestos mixture, including any finished product containing an asbestos mixture, which is incorporated into an article. Section I below lists typical terms for products made from asbestos mixtures and components. Some examples of asbestos components are: asbestos paper in a hair-dryer; asbestos-reinforced plastic cabinet of a television; asbestos textile that is part of a particular type of garment.
3. Secondary Processor of Asbestos—means a person who processes an asbestos mixture.
4. Importer of Asbestos Mixtures or Articles Containing Asbestos Component(s)—means a person who imports merchandise that contains asbestos into the customs territory of the United States. Where there are two or more "importers" for the same shipment, the Principal rather than the Agent should report if possible.

PART I COMPANY INFORMATION

Enter the name, address, and phone number of your company. Enter the name of the principal technical contact who is either responsible for the completion of this form, or has sufficient knowledge of its content to respond to questions posed by EPA. If you are reporting as an importer, check the appropriate box to indicate that you are either the Principal importer or the Agent for the Principal.

PART II SECONDARY PROCESSOR END PRODUCTS

End Products(s)—Locate in Section 1 the name of the product subcategory that most specifically describes your end product. In this column, enter the code number for the end product you make and write in the generic name for the product. If you are reporting a product that is not listed, enter the code for "other" that is listed under the most specific general category of products and write in the generic name. Report each end product on separate lines. For example, if you make appliances and are reporting toasters, enter "114" and "toaster".

Asbestos Mixture(s)—For each end product, locate in Section 2 the name of the asbestos mixture that most specifically describes the asbestos mixture that you incorporate into the end product. In this column, enter the code number for the asbestos mixture and write in the generic name. If you incorporate more than one asbestos mixture into a single end product, then use as many lines as necessary to report all asbestos mixtures in the end product. For example, if you incorporate asbestos millboard into your toaster, your entries would be as follows.

End Product	*Asbestos Mixture*
114 toaster	03 millboard

Quantity of Asbestos Mixture Consumed—Opposite each asbestos mixture that is listed, enter the quantity of each mixture that you consumed in 1981. Specify the quantity according to the unit of measure listed in Section 2. If the unit of measure is not listed, report the quantity in short tons. If your records do not permit you to list the quantities consumed for separate end products, then report the total amount of each type of asbestos mixture and enter "T" (for total) next to the figure.

PART III IMPORTERS OF ASBESTOS MIXTURE(S) OR ARTICLE(S) CONTAINING AN ASBESTOS COMPONENT

Asbestos Mixture or Article—For each type of imported product, locate in either Section 1 or Section 2 the name that most specifically describes the product you import. Enter the code number and generic name for the imported product.

Quantity of Asbestos Mixture(s) or Article(s) Imported—For each product listed, record the total annual quantity imported in 1981. Specify the quantity according to the unit of measure listed in Section 2, if possible, or according to the unit of measure as reported to the U.S. Customs Service upon entry of the merchandise into the United States.

Description of Asbestos Components in Article—List all asbestos components in the imported article by entering the name of the asbestos component opposite the name of the article. If the reported product is an asbestos mixture listed in Section 2, then you should not complete this description.

SECTION 1 - TYPICAL TERMS FOR PRODUCTS MADE OF ASBESTOS MIXTURES

AUTOMOTIVE AND FRICTION PRODUCTS
101. Drum brake lining (light-medium vehicle)
102. Disc brake pads (light-medium vehicle)
103. Disc brake pads (heavy vehicle)
104. Brake block (heavy equipment)
105. Clutch facings (all)
106. Automatic transmission friction components
107. Friction materials (industrial and commercial)
108. Custom automative body filler
109. Transmissions
110. Mufflers
111. Radiator top insulation
112. Radiator sealant
113. Other (specify generic name)

APPLIANCES
114. Applicance, industrial and consumer (specify generic name)

CONSTRUCTION PRODUCTS
115. Boiler and furnace baffles
116. Decorated building panels
117. A/C sheet
118. Flexible air conductor
119. Hoods and vents
120. Portable construction building
121. Roofing, saturated
122. Roof shingles
123. Wallboard
124. Wall/roofing panels
125. Other (specify generic name)

CLOTHING
126. Aprons
127. Boots
128. Gloves and mittens
129. Hats and helmets
130. Overgaitors
131. Suits
132. Other (specify generic name)

FLOOR COVERINGS
133. Vinyl-asbestos floor tile
134. Asbestos-felt-backed sheet vinyl flooring

ELECTRICAL PRODUCTS AND COMPONENTS
135. Cable insulation
136. Electronic motor components
137. Electrical resistance supports
138. Electrical switchboard
139. Electrical switch supports
140. Electrical wire insulation
141. Motor armature
142. Other (specify generic name)

FIRE AND HEAT SHIELDING EQUIPMENT AND COMPONENTS
143. Arc deflectors
144. Fire doors
145. Fireproof absorbent paper
146. Heat shields
147. Molten metal handling equipment
148. Oven and stove insulation
149. Pipe wrap
150. Stove lining, wood and coal
151. Stove pipe rings
152. Sleeves
153. Thermal insulation
154. Other (specify generic name)

GASKETS
155. Sheet gasketing, rubber encapsulated beater addition
156. Sheet gasketing, rubber encapsulated compressed
157. Compressed sheet gasketing (other)
158. Metal reinforced gaskets
159. Automotive gaskets
160. Other (specify generic name)

MARINE EQUIPMENT AND SUPPLIES
161. Caulks, marine
162. Liners, pond or canal
163. Marine bulkheads
164. Other (specify generic name)

PAINTS, COATINGS, SEALANTS, AND COMPOUNDS
165. Asphaltic compounds
166. Automotive/truck body coatings
167. Buffing and polishing compounds
168. Caulking and patching compounds
169. Drilling fluid
170. Flashing compounds
171. Furnace cement
172. Glazing Compounds
173. Plaster and stucco
174. Pump, valve, flange, and tank sealing components
175. Roof coatings
176. Textured paints
177. Tile cement
178. Other (specify generic name)

TEXTILE AND FELT PRODUCTS (other than clothing)
179. Aluminized cloth
180. Rope or braiding
181. Yarn, lap, or roving
182. Wicks
183. Bags
184. Belting
185. Blankets
186. Carpet padding
187. Commercial/industrial dryer felts
188. Draperies
189. Drip cloths
190. Fire hoses
191. Ironing board pads and insulation
192. Mantles, lamp or catalytic heater
193. Packing and packing components
194. Piano and organ felts
195. Rugs
196. Tape
197. Theater curtains
198. Umbrella
199. Other (specify generic name)

MISCELLANEOUS PRODUCTS
200. Aerial distress flares
201. Acoustical products
202. Ammunition wadding
203. Asbestos-reinforced plastic products
204. Ash trays
205. Baking sheets
206. Blackboards
207. Candlesticks
208. Chemical tanks and vessels
209. Filters
210. Grommets
211. Gun grips
212. Jewelry making equipment
213. Kilns
214. Lamp sockets
215. Light bulbs (all types)
216. Linings for vaults, safes humidifiers, and filing cabinets
217. Phonograph records
218. Pottery clay
219. Welding rod coatings
220. Other (specify generic name)

SECTION 2 - TYPICAL TERMS FOR ASBESTOS MIXTURES

PAPERS, FELTS, OR RELATED PRODUCTS	
01. commerical paper	short tons
02. rollboard	short tons
03. millboard	short tons
04. pipeline wrap	short tons
05. beater-add gasketing paper	short tons
06. high-grade electrical paper	short tons
07. unsaturated roofing felt	short tons
08. saturated roofing felt	short tons
09. flooring felt	short tons
10. corrugated paper	short tons
11. specialty paper (specify)	short tons
FLOOR COVERINGS	
12. vinyl-asbestos floor tile	square yards
13. asbestos-felt-backed vinyl flooring	square yards
ASBESTOS-CEMENT PRODUCTS	
14. A/C pipe and fittings	short tons
15. A/C sheet, flat	100 square feet
16. A/C sheet, corrugated	100 square feet
17. A/C shingle	squares
FRICTION MATERIALS	
18. drum brake lining (light-medium vehicle)	pieces
19. disc brake pads (light-medium vehicle)	pieces
20. disc brake pads (heavy equipment)	pieces
21. brake block (heavy equipment	pieces
22. clutch facings (all)	pieces
23. automatic transmissions friction components	pieces
24. friction materials (industrial and commerical)	pieces
TEXTILES	
25. cloth	pounds
26. thread, yarn, lap, roving, cord, rope or wick	pounds
OTHER PRODUCTS	
27. sheet asketing (other than beater-add)	square yards
28. packing	pounds
29. paints and suface coatings	gallons
30. adhesives and sealants	gallons
31. asbestos-reinforced plastics	pounds
32. insulation materials not elsewhere classified (n.e.c.)	_____
33. mixed or repackaged asbestos fiber	short tons
34. other (n.e.c.)	_____

FMSI 02650

Form Approved
OMB No. 2000-0478
Approval expires 6-30-85

REPORTING SECONDARY PROCESSING AND IMPORTATION OF ASBESTOS MIXTURES

When completed, send this form to:
US Environmental Protection Agency
PO Box 2070
Rockville, MD 20852

PART I – COMPANY INFORMATION

COMPANY NAME	FOR EPA USE ONLY	
ADDRESS *(Street, City, State & ZIP Code)*	TECHNICAL CONTACT	TELEPHONE NO.
	IMPORTER ☐ PRINCIPAL ☐ AGENT	

PART II – SECONDARY PROCESSOR END PRODUCT(S)

From the list in Section I, enter the asbestos end product produced. Opposite each product, list the asbestos mixture that you process, and the quantity of each mixture that you consumed in 1981.

END PRODUCT(S)		ASBESTOS MIXTURE(S)		QUANTITY OF ASBESTOS MIXTURE CONSUMED	
CODE	GENERIC NAME	CODE	GENERIC NAME	QUANTITY	UNIT OF MEASURE

PART III – IMPORTERS OF ASBESTOS MIXTURE(S) OR ARTICLE(S) CONTAINING ASBESTOS COMPONENTS

List the asbestos mixture(s) or article(s) that you import and the quantity of each item that you imported in 1981. Opposite each item, enter a description of the asbestos component in the mixture or article.

ASBESTOS MIXTURE(S) OR ARTICLE(S)		QUANTITY OF ASBESTOS MIXTURE(S) OR ARTICLE(S) IMPORTED		DESCRIPTION OF ASBESTOS COMPONENT(S) IN ARTICLE
CODE	GENERIC NAME	QUANTITY	UNIT OF MEASURE	

CERTIFICATION FOR CLAIMS OF CONFIDENTIAL BUSINESS INFORMATION

An authorized company official may claim any information reported on this form as confidential business information. To do this, the confidential information must be clearly circled with a red marker. In addition, an authorized company official must sign below to certify the truth and accuracy of the following four statements, which apply to all information that is claimed.

1. My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures.
2. The information is not, and has not been, reasonably obtainable by other persons (other than governmental bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent.
3. The information is not publicly available elsewhere.
4. Disclosure of the information claimed as confidential would cause substantial harm to my company's competitive position.

SIGNATURE OF AUTHORIZED OFFICIAL	DATE

J. WASTE AND DISPOSAL

Enter the following information for each end product you report in section B(1), C, and D. If you cannot provide information by end product, provide information according to the form of waste (column 2).

End product (1)		Form of waste (sludge, slurry, broke or scrap, baghouse fines, or specify other) (2)	Total annual quantity of asbestos waste *(Short tons)* (3)	Average percent asbestos (4)	Disposal site (5)				Method of disposal (6)	Confidential *Mark (x)*
Code number	Generic name				Type of land disposal facility (See instructions) (a)	Location (b)	Ownership (c)	Permitted hazardous waste facility? (d)		
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On-site ☐ Off-site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On-site ☐ Off-site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On-site ☐ Off-site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		

(7) You may describe in a separate enclosure any steps you take to ensure that waste does not release airborne fibers.

☐ Yes, enclosed is a separate description of waste disposal practices. ☐ No separate report

K. POLLUTION CONTROL EQUIPMENT

On separate lines enter information about each piece of air pollution control equipment used to control asbestos emissions at your plant site. ☐ Confidential

Item number (1)	Type of equipment *(See code)* (2)	Gas stream volume and temperature (3)	Equipment size (Baghouse and ESP only) (4)	Estimated collection efficiency *(Percent)* (5)	Normal operating schedule *(Hrs./year)* (6)	Quantity collected annually *(Pounds)* (7)	Source of emissions (8)	Stack or chimney? (9)	Special problems? (10)
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ N/A	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	

(11) Estimate the percent of plant exhaust air that is treated by the equipment listed above ________ %

Continuation of item answers

U.S. ENVIRONMENTAL PROTECTION AGENCY

REPORT OF COMMERCIAL AND INDUSTRIAL USES OF ASBESTOS
Continued

COMPANY NAME AND ADDRESS
(Same as reported in item 1 on page 1)

F. IMPORTATION OF ARTICLE(S) CONTAINING ASBESTOS COMPONENTS

Enter the following information for each article that you imported in 1981. Classify your imports according to the lists in section C or D.

Article name *(Enter one article per line)* (1)		Total annual imports (2)				Asbestos component(s) *(Use one line per component)* (3)	Confidential *Mark (X)*
Code number	Generic name	Year	Quantity	Unit of measure	Value *(U.S. dollars)*		
		1979					
		1980					
		1981					
		1979					
		1980					
		1981					
		1979					
		1980					
		1981					

G. EMPLOYEES

Record the number of employees at the reporting site in each of the categories below. Count each employee in one category only.

	Number of employees	Confidential *Mark (X)*
(1) TOTAL number of employees at plant site *(Sum of 2, 3, 4, and 5)*		
(2) Number of production employees		
(3) Number of employees in shipping, receiving, and moving		
(4) Number of maintenance employees		
(5) Number of other employees		

H. SUMMARY OF CURRENT WORKER EXPOSURES

This section requires you to report, by category of production workers, the arithmetic mean of the 8-hour time weighted average (TWA) and ceiling concentration exposure levels for all employees at the reporting site. Report for all employees for whom you have determined a TWA and according to each production line making the reported products. The instructions include a worksheet for making necessary calculations (see Appendix B).

End product *(Enter name)* (1)		Respondent activity (2)	Production work category (3)	Number of employees (4)	8 hr. time weighted average				Ceiling concentration level *(Range)* (9)	Confidential *Mark (X)*
Code number	Generic name				Arithmetic mean of detectable measurements (5)	Standard deviation (6)	Total number of measurements (filters) (7)	Number of non-detectable measurements (8)		
	Not applicable	**Miners and millers**	**Mine operations** (includes all employees working in mine, including transporters)							
			Mill operations (includes all employees working in production areas of mill)							
		Primary processors	**Fiber introduction** operations (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							
		Primary processors	**Fiber introduction operations** (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							
		Primary processors	**Fiber introduction operations** (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							

(10) Sampling and analysis methods

☐ Mark this box if you use the NIOSH method to sample airborne concentrations of asbestos fibers in the workplace and analyze measurements (DHEW (NIOSH) Pub. No. 79-127).

If you utilize other sampling and analysis methods, enter the appropriate codes for those methods listed in the instruction booklet under part I. _____

(11) Enter the lowest detectable level of the measurements that your company expects to attain by the sampling and analysis methods. (Measurements below this level should be considered as "nondetectable." for the purposes of this rule.)

I. MEASURING ASBESTOS EMISSIONS OR FIBER RELEASE

NPDES Permit number _____ | Date

☐ Yes, enclosed is a separate report for this section concerning measuring asbestos emissions. ☐ No separate report

C. PRIMARY PROCESSOR PRODUCTION

Enter the following information for each type of end product that you shipped from your plant site. Classify your end products according to the list below.

End product shipped (Enter one end product per line) (1) Code number	Generic name	Type of asbestos fiber (Use one line per mineral type) (2)	Year	Quantity of asbestos consumed (Short tons) (3)	Product shipments: Total annual production (4) Quantity	Unit of measure	Value shipped (Thousands of dollars) (5) Domestic	Exports	Confidential Mark (X)
		☐ Chrysotile ☐ Anthophyllite ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	1979						
			1980						
			1981						
	☐ Continued	☐ Chrysotile ☐ Anthophyllite ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	1979						
			1980						
			1981						
	☐ Continued	☐ Chrysotile ☐ Anthophyllite ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	1979						
			1980						
			1981						

(6) Estimate the percentage of the total value shipped from the plant site reported here as primary processor production in 1981 _____ %

Asbestos Mixture Product Subcategories

	Unit of measure
Papers, felts, or related products	
01. Commercial paper	Short tons
02. Rollboard	Short tons
03. Millboard	Short tons
04. Pipeline wrap	Short tons
05. Beater-add gasketing paper	Short tons
06. High-grade electrical paper	Short tons
07. Unsaturated roofing felt	Short tons
08. Saturated roofing felt	Short tons
09. Flooring felt	Short tons
10. Corrugated paper	Short tons
11. Specialty paper *(Specify generic name)*	Short tons
Floor coverings	
12. Vinyl-asbestos floor tile	Square yards
13. Asbestos-felt-backed vinyl flooring	Square yards

	Unit of measure
Asbestos-cement products	
14. A/C pipe and fittings	Short tons
15. A/C sheet, flat	100 sq. ft.
16. A/C sheet, corrugated	100 sq. ft.
17. A/C *shingle*	*Squares*
Friction materials	
18. Drum brake lining (light-medium vehicle)	Pieces
19. Disc brake pads (light-medium vehicle)	Pieces
20. Disc brake pads (heavy vehicle)	Pieces
21. Brake block (heavy equipment)	Pieces
22. Clutch facings (all)	Pieces
23. Automatic transmission friction components	Pieces
24. Friction materials (industrial and commercial)	Pieces

	Unit of measure
Textiles	
25. Cloth	Pounds
26. Thread, yarn, lap, roving, cord, rope, or wick	Pounds
Other products	
27. Sheet gasketing (other than beater-add)	Sq. yards
28. Packing	Pounds
29. Paints and surface coatings	Gallons
30. Adhesives and sealants	Gallons
31. Asbestos-reinforced plastics	Pounds
32. Insulation materials not elsewhere classified *(Specify generic name)*	*(Specify)*
33. Mixed or repackaged asbestos fiber	Short tons
34. Other *(Specify generic name)*	*(Specify)*

D. SECONDARY PROCESSOR PRODUCTION

Enter the following information for each type of end product that you shipped from your plant site. Classify end products and asbestos mixtures consumed according to the lists on this form.

End product shipped (Enter one end product per line) (1) Code number	Generic name	Total annual production (2) Year	Quantity	Unit of measure	Asbestos mixture consumed and form (Enter one mixture per line) (3) Code number	Generic name / Form	Function of asbestos in product (4)	Year	Annual consumption of asbestos mixtures (5) Quantity	Unit of measure	Delivered cost (Thousands of dollars)	Confidential Mark (X)
		1979						1979				
		1980						1980				
		1981						1981				
		1979						1979				
		1980						1980				
	☐ Continued	1981						1981				
		1979						1979				
		1980						1980				
	☐ Continued	1981						1981				

(6) Estimate the percentage of the total value shipped from the plant site reported here as secondary processor production in 1981 _____ %

Typical terms for products made from asbestos mixtures

Automotive and friction products
- **101.** Drum brake lining (light-medium vehicle)
- **102.** Disc brake pads (light-medium vehicle)
- **103.** Disc brake pads (heavy vehicle)
- **104.** Brake block (heavy equipment)
- **105.** Clutch facings (all)
- **106.** Automatic transmission friction components
- **107.** Friction materials (industrial and commercial)
- **108.** Custom automotive body filler
- **109.** Transmissions
- **110.** Mufflers
- **111.** Radiator top insulation
- **112.** Radiator sealant
- **113.** Other *(Specify generic name)*

Appliances
- **114.** Appliance, industrial and consumer *(Specify generic name)*

Construction products
- **115.** Boiler and furnace baffles
- **116.** Decorated building panels
- **117.** A/C sheet
- **118.** Flexible air conductor
- **119.** Hoods and vents
- **120.** Portable construction building
- **121.** Roofing, saturated
- **122.** Roof shingles
- **123.** Wallboard
- **124.** Wall/roofing panels
- **125.** Other *(Specify generic name)*

Clothing
- **126.** Aprons
- **127.** Boots
- **128.** Gloves and mittens
- **129.** Hats and helmets
- **130.** Overgaitors
- **131.** Suits
- **132.** Other *(Specify generic name)*

Floor coverings
- **133.** Vinyl-asbestos floor tile
- **134.** Asbestos-felt-backed sheet vinyl flooring

Electrical products and components
- **135.** Cable insulation
- **136.** Electronic motor components
- **137.** Electrical resistance supports
- **138.** Electrical switchboard
- **139.** Electrical switch supports
- **140.** Electrical wire insulation
- **141.** Motor armature
- **142.** Other *(Specify generic name)*

Fire and heat shielding equipment and components
- **143.** Arc deflectors
- **144.** Fire doors
- **145.** *Fireproof absorbent paper*
- **146.** Heat shields
- **147.** Molten metal handling equipment
- **148.** Oven and stove insulation
- **149.** Pipe wrap
- **150.** Stove lining, wood and coal
- **151.** Stove pipe rings
- **152.** Sleeves
- **153.** Thermal insulation
- **154.** Other *(Specify generic name)*

Gaskets
- **155.** Sheet gasketing, rubber encapsulated beater addition
- **156.** Sheet gasketing, rubber encapsulated compressed
- **157.** Compressed sheet gasketing (other)
- **158.** Metal reinforced gaskets
- **159.** Automotive gaskets
- **160.** Other *(Specify generic name)*

Marine equipment and supplies
- **161.** Caulks, marine
- **162.** Liners, pond or canal
- **163.** Marine bulkheads
- **164.** Other *(Specify generic name)*

Paints, coatings, sealants, and compounds
- **165.** Asphaltic compounds
- **166.** Automotive/truck body coatings
- **167.** Buffing and polishing compounds
- **168.** Caulking and patching compounds
- **169.** Drilling fluid
- **170.** Flashing compounds
- **171.** Furnace cement
- **172.** Glazing compounds
- **173.** Plaster and stucco
- **174.** Pump, valve, flange, and tank sealing components
- **175.** Roof coatings
- **176.** Textured paints
- **177.** Tile cement
- **178.** Other *(Specify generic name)*

Textile and felt products
- **179.** Aluminized cloth
- **180.** Rope or braiding
- **181.** Yarn, lap, or roving
- **182.** Wicks
- **183.** Bags
- **184.** Belting
- **185.** Blankets
- **186.** Carpet padding
- **187.** Commercial/industrial dryer felts
- **188.** Draperies
- **189.** Drip cloths
- **190.** Fire hoses

Textile and felt products — Con.
- **191.** Ironing board pads and insulation
- **192.** Mantles, lamp or catalytic heater
- **193.** Packing and packing components
- **194.** Piano and organ felts
- **195.** Rugs
- **196.** Tape
- **197.** Theater curtains
- **198.** Umbrellas
- **199.** Other *(Specify generic name)*

Miscellaneous products
- **200.** Aerial distress flares
- **201.** Acoustical products
- **202.** Ammunition wadding
- **203.** Asbestos-reinforced plastic products
- **204.** Ash trays
- **205.** Baking sheets
- **206.** Blackboards
- **207.** Candlesticks
- **208.** Chemical tanks and vessels
- **209.** Filters
- **210.** Grommets
- **211.** Gun grips
- **212.** Jewelry making equipment
- **213.** Kilns
- **214.** Lamp sockets
- **215.** Light bulbs (all types)
- **216.** Linings for vaults, safes, humidifiers, and filing cabinets
- **217.** Phonograph records
- **218.** Pottery clay
- **219.** Welding rod coatings
- **220.** Other *(Specify generic name)*

E. IMPORTATION OF ASBESTOS MIXTURES

Enter the following information for each type of asbestos mixture that you imported in 1981. Classify your imports according to the lists in section C or D.

Asbestos mixtures (Enter one mixture per line) (1) Code number	Generic name	Asbestos fiber content (if known) (2) Type of asbestos	Quantity (Per unit)	Year	Total annual imports (3) Quantity	Unit of measure	Value of imports (U.S. dollars)	Confidential Mark (X)
		☐ Chrysotile ☐ Anthophyllite ☐ Unknown ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	☐ Unknown	1979				
				1980				
				1981				
	☐ Continued	☐ Chrysotile ☐ Anthophyllite ☐ Unknown ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	☐ Unknown	1979				
				1980				
				1981				
	☐ Continued	☐ Chrysotile ☐ Anthophyllite ☐ Unknown ☐ Crocidolite ☐ Tremolite ☐ Amosite ☐ Actinolite	☐ Unknown	1979				
				1980				
				1981				

O.M.B. No. 2000-0478: Approval Expires June 30, 1985

EPA United States Environmental Protection Agency

REPORTING COMMERCIAL AND INDUSTRIAL USES OF ASBESTOS

When completed send this form to:

U.S. Environmental Protection Agency
P.O. Box 2070
Rockville, MD 20852

Please read the accompanying instruction booklet before completing this form. Note that a separate form must be submitted for each plant site, except that total imports or exports of bulk asbestos may be reported in a consolidated corporate report. The instructions provide further directions.

When this form is complete, enclose it in the preaddressed envelope provided. Should you have any questions, please contact the Industry Assistance Office toll-free at (800) 424-9065 or in Washington, D.C. at (202) 554-1404.

All persons who are solely secondary processors, importers of asbestos mixtures, or importers of articles containing asbestos components will report in the first phase on EPA Form 7710-37, titled "Secondary Processing and Importation of Asbestos Mixtures." These persons will report in this form, EPA Form 7710-36, only upon receipt of notice to that effect from EPA (see 40 CFR 763, part D).

A(1). RESPONDENT IDENTIFICATION

1. Company name		Plant site name	
Address (Number and street)			
City	County	State	ZIP code
2. Principal technical contact person — Name		Job title	Office telephone (Area code, number, extension)
3. *If applicable* — Record mine identification number ——			

4. *If applicable* — Record the name and address of the parent corporation which is responsible for the fiscal management of the reporting site.

Name of parent corporation			
Address (Number and street)			
City	County	State	ZIP code

5. Record the total number of years during which the manufacture and/or processing of asbestos has been conducted at the reporting site. —— Number of years

A(2). RESPONDENT ACTIVITY

6. Identify your activity from the definitions in the instruction booklet and mark (X) the box next to the category below that best describes your activity(ies). Mark (X) next to *all activities that you are reporting on this form.* You must at least complete the portions of this report that are indicated next to the box you mark, and you must complete other sections if you conduct that activity. For example, if at the same plant site you process bulk asbestos to produce an asbestos mixture and you also process an asbestos mixture that is made at another location, then you as a primary processor must also complete part D as a secondary processor.

All persons who are miners, millers, primary processors, or importers of bulk asbestos must report their asbestos activities at all plant sites.

Mark (X) your activity(ies) that is reported on this form.

- ☐ Mine and mill — Complete parts A, B(1), G, H, I, J, K [B(3), if applicable]
- ☐ Primary processor — Complete parts A, C, G, H, I, J, K [B(3), if applicable]
- ☐ Importer of bulk asbestos — Complete parts A, B(2) [B(3), if applicable]
- ☐ Secondary processor — Complete parts A, D, G, H, I, J, K
- ☐ Importer of asbestos mixtures — Complete parts A and E
- ☐ Importer of article(s) containing asbestos component(s) — Complete parts A and F

A(3). CERTIFICATION FOR CLAIMS OF CONFIDENTIALITY

You may claim as confidential any information you submit on this form. The instructions provide specific instructions on how to assert claims of confidentiality. For information which you submit in attachments to the form, provide a copy which clearly indicates the information you wish to claim confidential.

Space is provided at the end of each line to claim information on that line confidential.

For any information on this form you claim as confidential, you must certify that the information is confidential. The signature below will attest to the truth and accuracy of the following statements. All four statements must be true about any information you claim confidential.

1. My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures.
2. The information is not, and has not been, reasonably obtainable by other persons (other than governmental bodies) by using legitimate means (other than discovery based on a showing of special need and in a judicial or quasi-judicial proceeding) without my company's consent.
3. The information is not publicly available.
4. Disclosure of the information claimed as confidential would cause substantial harm to my company's competitive position.

7. Signature of authorized official		Date

B(1). PRODUCTION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS MINED OR MILLED

Enter , in short tons, the amount of bulk asbestos you produced (mined or milled) for 1979 through 1981.

Year	*Report in short tons*						Confidential *Mark (X)*
	Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	
1979							
1980							
1981							

B(2). IMPORTATION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS IMPORTED

Enter , in short tons, the amount of bulk asbestos you imported for 1979 through 1981.

Mark (X) one: ☐ This is a corporate consolidated report. ☐ This is a plant site report.

Year	*Report in short tons*						Confidential *Mark (X)*
	Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	
1979							
1980							
1981							

B(3). EXPORTATION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS EXPORTED

Enter , in short tons, the amount of bulk asbestos you exported for 1979 through 1981.

Mark (X) one: ☐ This is a corporate consolidated report. ☐ This is a plant site report.

Year	*Report in short tons*						Confidential *Mark (X)*
	Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	
1979							
1980							
1981							

United States
Environmental Protection
Agency

Office of
Toxic Substances
Washington, D.C. 20460

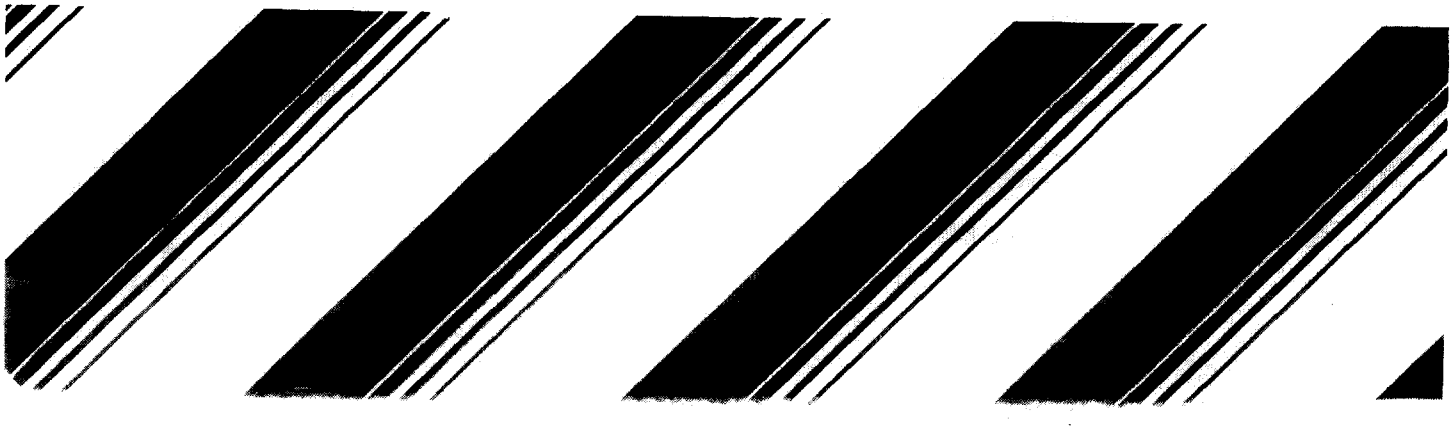
July 1982

Toxic Substances

EPA

Reporting Commercial and Industrial Uses of Asbestos:

Instruction Booklet
EPA Form 7710-36



FMSI 02655

Table of Contents

INSTRUCTION BOOKLET--REPORTING COMMERCIAL AND INDUSTRIAL USES OF ASBESTOS, EPA FORM 7710-36

I. INTRODUCTION AND REPORTING SCHEDULE

A. Introduction

These instructions are for companies that mine and/or mill commercial asbestos, or process or import an asbestos product, and are required to submit EPA Form 7710-36 under 40 CFR Part 763, Subpart D. Data must be reported to the extent that they are known to or reasonably ascertainable by the submitter based on factual information that either is available in company files, or can be obtained without unreasonable burden or cost. Importers must report information in their possession, but need not contact foreign manufacturers for missing information.

1. Fill in all blocks

   Fill in all blocks in the portions of the form that must be completed. Write "N/A" (not applicable) in large, bold letters on the first line of any section that does not have to be completed.

   If data for a portion of the form that must be completed are not available, consult part II of these instructions, "Missing Information."

   EPA will check all forms for completeness. Incomplete forms may be returned for completion. If only a few items are incomplete, EPA may call the designated Technical Contact to determine the correct answer rather than return the form.

2. Relevant Definitions

   Reporting requirements are determined by the company's asbestos activity in 1981 (i.e., miner and/or miller, importer of bulk asbestos, primary processor of asbestos, secondary processor of asbestos, importer of asbestos mixtures, or importer of articles containing asbestos components). Definitions for reporting activities and other terms used in this form may be found in Appendix A.

3. Appropriate Number of Forms

A separate form must be submitted for each site. For example, a miner and/or miller at one site who is a primary processor at a different site must submit a form for each site.

All asbestos activities conducted at each site must be reported. A primary processor who also imports asbestos at a single site must report both the primary processing and importing activities on the same form.

4. Additional Space

If additional space is needed to report all required information, responses can be entered on a reproduction of the pertinent portion of the form and the continuation should be noted on that part of the form.

B. Portions of the Form To Complete and Reporting Schedule

1. Miners and/or Millers

Miners and/or millers, must complete parts A, B(1), G, H, I, J, and K of the form. Complete B(3) if applicable. Report for each plant site on a separate EPA Form 7710-36 and submit within 90 days of the effective date of the rule.

2. Primary Processors of Asbestos

Primary processors must complete parts A, C, G, H, I, J, and K of the form. Complete B(3) if applicable. If a facility processes an asbestos mixture that is made at a different plant site, part D must also be completed. Report for each plant site on a separate EPA Form 7710-36 within 90 days of the effective date of the rule.

3. Secondary Processors of Asbestos

Persons who are solely secondary processors must submit EPA Form 7710-37, "Reporting Secondary Processing and Importation of Asbestos Mixtures" within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A, D, G, H, I, J, and K of the form for submission within 90 days of receiving notification.

4. Importers of Bulk Asbestos

Importers of Bulk Asbestos must complete at least parts A and B(2) of the form. Complete B(3) if applicable. Report all activities that involve asbestos on EPA Form 7710-36 within 90 days of the effective date of the rule.

5. Importers of Asbestos Mixtures

Importers of Asbestos Mixtures must submit EPA Form 7710-37 "Reporting Secondary Processing and Importation of Asbestos Mixtures," within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A and E of the form and submit within 90 days of receiving notification.

6. Importers of Article(s) Containing Asbestos Component(s)

Importers of Article(s) Containing Asbestos Component(s) must submit EPA Form 7710-37 "Reporting Secondary Processing and Importation of Asbestos Mixtures," within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A and F of the form and submit within 90 days of receiving notification.

II. MISSING INFORMATION

It is important to fill in all blocks in the portions of the form that must be completed. If the required information either cannot or need not be provided, enter one of the notations described below. Write "N/A" (not applicable) in large bold letters on the first line of any section that is not required. Only use "0" to report a quantity of zero.

Enter the following notations if the requested data are unknown, previously submitted to EPA or CPSC, or submitted as a corporate report.

UNK -- The requested data are unknown and not reasonably ascertainable; or, not in the possession of the importer. This may be the case for information from a specific year or about a specific type of data that is required.

CPSC -- The requested data have been previously reported to the Consumer Product Safety Commission (CPSC) in response to the December 22, 1980 Federal Register notice "Consumer Product Containing Asbestos; General Order for Submission of Information," (45 FR 84384). Use this notation only for the specific items of information that were submitted to CPSC. Do not use this notation in lieu of reporting if CPSC was instructed not to share the submitted information with EPA at the time of response to the CPSC General Order.

CORP -- The requested data have been submitted for sections B(2) and B(3) (importation and exportation), in a corporate consolidated report. Inform the plant site management that a corporate consolidated report has been submitted and instruct those plant site(s) to enter "CORP" in sections B(2) and B(3).

(3) Quantity of Asbestos Consumed

For each type of asbestos, enter, in short tons, quantity consumed in 1979, 1980, and 1981.

(4) Total Annual Production

Record the total annual production quantity of each reported product subcategory in 1979, 1980, and 1981. Production quantities will be expressed in the units of measure indicated on the form next to the listed end product, as used by the Bureau of Census. If census units are not applicable, report production in short tons.

(5) Value Shipped

Record the total annual value shipped (in thousands of U.S. dollars) for each reported product subcategory in 1979, 1980, and 1981. These figures must be separated to show domestic sales and export sales (i.e., sales distributed outside the U.S. Customs Territory). If the breakdown is unknown, report total sales as "Domestic" sales, and write "UNK" under "Exports."

The valuation of products shipped should be based on the net selling value, f.o.b. plant, after discounts and allowances, and exclusive of freight charges and excise taxes.

When reporting products transferred to other establishments within the same company, the shipping plant should assign the full economic value to the transferred products. Include all direct costs of production and a reasonable proportion of all other costs and profits.

(6) Percentage of Total Value Shipped

Estimate the percentage of end products shipped that reflect primary processing of asbestos in 1981.

D. Secondary Processor Production

Individually list the product subcategories made and shipped from the plant site in 1979, 1980, and 1981 that incorporated an asbestos mixture as a starting material. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) End Product Shipped

Locate on the list of "Typical Terms for Products Made from Asbestos Mixtures" the most specific subcategory name that describes the product. Enter the corresponding code number for

each product subcategory being reported. If the product name listed is not adequately descriptive, write in a generic name next to the code number. If the product is not listed, enter the appropriate code for "other" and write in a generic name for the product. Do not enter a trade name as a generic name. Do not report anything more specific than a product subcategory.

(2) Total Annual Production (Quantity by Census Unit of Measure)

Record the total production of the reported product subcategory at this plant site in 1979, 1980, and 1981. Production quantities should be reported in the unit of measure used by the U.S. Department of Commerce, Bureau of the Census, for the 1977 Census of Manufacturers.

(3) Asbestos Mixture Consumed and Form

Locate and enter from the list of "Asbestos Mixture Product Subcategories" the code number of the asbestos mixture processed to produce the product subcategory. If the material processed is not listed, then enter the appropriate code for "other" and write the generic name of the asbestos material you process. Indicate the form in which the asbestos starting material is purchased (e.g., roll of paper, 3'x5' sheets, reams of 8"x11" sheets).

Use one block for each asbestos mixture incorporated into the product subcategory. If there is more than one asbestos mixture per product subcategory, list the mixture(s) in the next block(s) and mark (X) the continuation box in column 1. Do not list the same product subcategory twice.

(4) Function of the Asbestos in Product

Briefly describe the function of the asbestos in the product. Examples of possible asbestos functions are: rot resistance, heat insulation, fire shield, electrical insulation, dimensional stability, filler, or tensile strength.

(5) Annual Consumption of Asbestos Mixtures

Record the total annual quantity and specify Census Bureau unit of measure and the total annual cost (in thousands of U.S. dollars) of the asbestos mixtures consumed in 1979, 1980, and 1981.

The value of the materials consumed should be based on the delivered cost, i.e., the amount paid or payable after discounts and including freight and other direct charges incurred in acquiring the materials. Charges include purchases, transfers from other establishments of the company, and withdrawals from inventories.

Materials transferred to the plant site from other plants within the company should be assigned their full economic value, as assigned by the shipping plant, plus cost of freight and handling charges.

(6) Percentage of Total Value Shipped

Estimate the percentage of end products shipped that reflect secondary processing of asbestos in 1981.

E. Importation of Asbestos Mixtures

Individually list the asbestos mixtures imported to the plant site in 1979, 1980, and 1981. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) Asbestos Mixture

Locate on the list of "Asbestos Mixture Product Subcategories" the most specific name that describes the mixture imported. Enter the corresponding code number of each product subcategory being reported. If the name of the product subcategory is not adequately descriptive, write in a generic name next to the code number. If the imported product subcategory is not listed, enter the appropriate code for "other" and write in a generic name for the product. List each product subcategory on a separate line. Do not enter a trade name as a generic name. Do not report anything more specific than a product subcategory.

(2) Asbestos Fiber Content

Mark (X) the type of asbestos fiber in the imported asbestos mixture and enter the total quantity of asbestos per unit of the mixture (the unit used to report quantity imported). The quantity of asbestos should be reported in pounds. If these data are not available, mark (X) "UNK."

Use one block for each type of fiber that is in the imported mixture. If the mixture contains more than one type of asbestos fiber, list the additional fiber(s) in the next block(s) and note the continuation in column 1. Do not list the same mixture twice.

(3) Total Annual Imports

Record the total annual quantity of each listed product subcategory imported in 1979, 1980, and 1981.

Quantities will be expressed in the units of measure used by the U.S. Bureau of the Census or according to the unit used to report importation to the U.S. Customs Service.

Record the total annual value imported (U.S. dollars) for each product in 1979, 1980, and 1981. This figure can be drawn from the U.S. Customs Service entry forms as the "Entered Value in U.S. Dollars" or "Value."

F. Importation of Article(s) Containing Asbestos Component(s)

Individually list the articles containing an asbestos component that were imported in 1979, 1980, and 1981. Only report information relating to imported product subcategories listed under "Typical Terms for Products Made from Asbestos Mixtures." If the component was reported on EPA Form 7710-37 during Phase 1, use the same code(s) and generic name(s) as reported on that form. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) Article Name

Locate on the list of "Typical Terms for Products Made from Asbestos Mixtures" the most specific name that describes your product. If the listed product name does not adequately describe your product, write in a generic name next to the code number. List each product on a separate line. If the imported product is not listed, enter the appropriate code number for "other" and write in a generic name. Do not enter a trade name as a generic name.

(2) Total Annual Imports

Record the total number of units that were imported in 1979, 1980, and 1981. Quantities will be reported in the unit of measure that was used to declare the merchandise upon entry into the U.S. or by the U.S. Bureau of Census for the 1977 Census of Manufacturers. Enter the value of the imported merchandise in U.S. dollars.

(3) Asbestos Component(s)

List all asbestos components contained in the imported article by name, or by describing the mixture making up the component. Use one block for each asbestos component. If the imported article contains more than one asbestos component, list the component in the next block and note the continuation in column 1. Do not list the same article twice.

G. Employees

Classify all employees as of January 1981 into the following categories. In items 2-5, COUNT EACH EMPLOYEE IN ONLY ONE CATEGORY. In this section, report numbers of individuals without regard to the number of hours worked.

(1) Total Number of Employees. Enter the total number of employees (the sum of items 2, 3, 4, and 5) who worked at the reporting plant site as of Janury 1981. If you employed seasonal workers in 1981, add the number of those workers to the total.

(2) Number of Production Employees. Enter the number of production employees who work in areas where ASBESTOS IS MANUFACTURED OR PROCESSED. Do not include plant site production employees who work in separate areas where no asbestos fiber or asbestos product is processed. This number must equal the total number of employees reported in Section H, for all product lines.

(3) Number of Shipping, Receiving, and Moving Employees. Enter the number of employees involved with shipping, receiving, or moving asbestos fiber or asbestos-containing products.

(4) Number of Maintenance Employees. Enter the number of maintenance employees who perform maintenance tasks in work areas where asbestos fiber, asbestos products, or asbestos waste are processed, stored, or moved.

(5) Number of Other Employees. Enter the number of other employees at the location that are not counted in items 2-4.

H. Summary of Current Worker Exposures

Report, by category of production workers, the arithmetic mean of the 8-hour time weighted average (TWA) exposure level for all employees at the reporting site for whom a TWA has been determined. Appendix B describes how to perform the calculations and includes a worksheet.

SUMMARIZE ONLY EXISTING MONITORING DATA; ADDITIONAL MONITORING IS NOT REQUIRED.

Submit a single TWA value (arithemtic mean) to summarize existing monitoring data that will describe current exposure levels that employees in general production categories may experience while working on each production line. Summarize and report monitoring data separately for workers on the production line for each end product subcategory that has been reported as either "Primary Processor Production" (part C) or "Secondary Processor Production" (part D). Miners and millers, must provide a single, separate TWA value for the mine and for the mill.

For each End Product Subcategory, enter the number of workers who perform the production operations listed below. Only count employees who were counted as production workers in item 2 of part G of the form. Each employee is to be counted only one time, in the operation and product line that is the employee's primary assignment.

After grouping the 8-hour TWAs, follow the detailed instructions in Appendix B to find the mean, standard deviation, number of measurements, and ceiling ranges for each group.

NOTE: The sum of all production employees listed in column 4 must equal the number of production employees entered in item 2 of part G.

(1) End Product

Primary or secondary processors must enter the same code number(s) and generic name(s) they listed in part C or D of the form. Miners and/or millers do not complete this block.

(2) Respondent Activity

Determine applicable category of activity.

(3) Production Work Category

Divide production employees into the Production Work Categories for each end product subcategory. Count mine workers under Mine Operations and mill workers under Mill Operations.

Fiber Introduction Operations are operations where bulk (raw) asbestos is mixed with or added to a combination of other materials. Primary processors will list employees who handle bulk or raw abestos fiber. Secondary processors do not use bulk asbestos as a starting material.

Wet Mechanical Operations are operations where asbestos fiber, asbestos mixtures, or asbestos-containing materials are fabricated, modified, or altered, and the asbestos component is wetted to reduce the release of airborne asbestos fiber. This category includes such activities as: machining, sawing, drilling, cutting, grinding, or pulverizing. Count employees whose principal job is to control or work with the tool or machinery performing the operation. Count all asbestos textile workers involved with wet operations here, whether involved in spinning, twisting, or weaving operations.

Dry Mechanical Operations are operations where asbestos fiber, asbestos mixtures, or asbestos-containing materials are fabricated, modified, or altered without any intentional wetting of the material during the operation. This category includes activities such as: machining, sawing, drilling, cutting,

grinding, or pulverizing. Count employees whose principal job is to control or work with the tool or machinery performing the operation. Count all asbestos textile workers in dry operations here, whether involved in spinning, twisting, or weaving operations.

Other Production Employees are production employees involved in operations that require handling of asbestos fiber or materials in a manner not covered in the operations described in the other categories. This category will include workers who perform an operation that involves handling an asbestos mixture, such as bonding asbestos-felt-backing for vinyl sheet flooring or injecting asbestos-reinforced plastic into a mold. Other production workers who are to be counted in this category include (but are not limited to) employees who take products off a production line, assemble parts, oversee drying or rolling operations, or inspect, weigh, or package asbestos mixtures or asbestos-containing products.

(4) Number of Employees

Enter next to the appropriate job classification the number of employees working in jobs meeting the general descriptions provided. Count employees only one time and only under the job description that best describes their primary duties.

(5) Arithmetic Mean of Detectable Measurements

Locate monitoring data for any employees counted in column 4 and group those monitoring data according to the employee's general job classification. Determine the arithmetic mean of those detectable TWA values for each work category. Calculate the mean only to the nearest one-hundredth (e.g., 0.05). The arithmetic mean is the sum of the time-weighted averages divided by the number of time-weighted averages. (See Appendix B for instructions and worksheet for determining the arithmetic mean.) If there are no measurements for workers in a particular work category, write in "No measurements."

(6) Standard Deviation

Enter the standard deviation for each arithmetic mean you calculate in column 5. (See Appendix B for instructions and a worksheet for determining the standard deviation.)

(7) Number of Measurements Used

For each work category, enter the total number of actual observations (filters) used to determine all of the employee's TWAs in the category. This includes the number of all non-detectable measurements.

(8) Number of Non-detectable Measurements

For each work category, enter the number of measurements that are below detectable levels. (Non-detectable levels may not be greater than 0.1 f/cc.)

(9) Ceiling Concentration Level

For each work category, enter the range of ceiling concentration levels that were determined. Provide the low and high measurements.

(10) Sampling and Analyses Methods

If the company used the NIOSH methodology to sample airborne concentrations of asbestos fibers in the workplace and to analyze measurements [DHEW (NIOSH) Pub. No. 79-127], check the corresponding box on the form.

If the company used other sampling and analysis methods, enter the appropriate codes for those methods listed in the next section of these instructions.

The reporting company has the option to describe in an attachment any additional information that will better describe work practices or other measures instituted to reduce the levels of airborne fibers or to protect workers from exposure to asbestos. Attach any additional materials to this form at the time of submission.

(11) Enter the lowest detectable level of the measurements the company expects to attain by the sampling and analysis methods. (Measurements below this level are considered "non-detectable" for the purposes of this rule.)

I. Measuring Asbestos Emissions or Fiber Release

If the plant site has applied for a water effluent discharge permit (NPDES Permit), provide the application date and the permit number that was assigned.

Summarize and report separately the results of any measurements or monitoring performed to determine the amount of asbestos fiber released during the production, use, or disposal of asbestos fiber or asbestos products (other than already reported in part H of this form). If attaching any such information for this section, check the "yes" box on the form. If not, mark "X" for no separate report. Where possible, the measurements should characterize the type of fibers found and the fiber size distribution, and should be reported according to the following ranges.

Reports submitted in response to this section should describe the methodologies used to perform any tests, to gather samples, and to analyze samples. If this information has been previously submitted to a Federal agency, do not report again here, but indicate the date and to whom the information was sent, and briefly describe the nature of the information. Where possible, summarize the sampling and analytical methodologies according to the terms and abbreviations listed below.

Fiber Size Distributions

<1.0
1.0-2.0
2.0-3.0
3.0-4.0
4.0-5.0
5.0-10.0
10.0-20.0
20.0-30.0
>30.0

Sampling Methodologies

K	Konimeter
TP	Thermal Precipitator
I	Impinger
MI	Midget Impinger
MF	Membrane Filter

Analysis Methodologies

OPTICAL MICROSCOPY
PC Phase Contrast Microscopy
PM Polarizing Microscopy
DS Dispersion Staining
OM Other optical microscopy techniques (specify)
ELECTRON MICROSCOPY

TEM	Transmission Electron Microscopy
SEM	Scanning Electron Microscopy
ED	Electron Diffraction
XRS	X-Ray Spectrometry
EM	Unknown electron microscopy results
O	Any other analysis methodology (Provide specifications)

EPA Provisional Methodology

EPA -- "Electron Microscope Measurement of Airborne Asbestos Concentrations - A Provisional Methodology," EPA-600/2-77-178 (Revised June 1978).

J. Waste and Disposal

Entries in this section will account for the waste that is not recycled and results from the production of each type of end product subcategory reported. The percentage of the total waste from the plant site that results from the production of each end product subcategory may be estimated. Report separately the data for each end product subcategory. If unable to determine quantities by product subcategory, report total quantities disposed of for each form of waste.

(1) Product Line

Enter the product subcategory code (and generic name if used) for each end product subcategory reported in parts B(1), C, or D. Miners and/or millers need only list the type of bulk asbestos fiber reported in section B(1). If unable to determine wastes by

end product subcategory, report according to the form of the waste (see below); enter the name(s) and code(s) from parts C and D. Mark (X) in the appropriate box to indicate that the data is either an "End Product Report" or a "Form of Waste Report."

(2) Form of Waste

Record the form of the waste either after completion of the processing or as it leaves the plant site. Report asbestos collected in control devices, such as baghouse fines, on a separate line.

(3) Total Annual Quantity of Asbestos Waste (Short Tons)

Enter the total quantity, in short tons, of asbestos waste generated by each reported end product production line in 1981. Asbestos waste is a waste product that contains asbestos as some of the total waste. Do not report quantities of waste recycled or reprocessed.

(4) Average Percent Asbestos

Record in short tons the average percentage of asbestos (by weight) in the total quantity of asbestos waste. This figure may be an estimate based on previous experience or an extrapolation of production mass balance figures.

(5) Disposal Site(s)

(a) Type of Land Disposal Facility

Mark (X) one of the following types of land disposal facilities for the asbestos waste of each end product subcategory or form of waste. See the February 5, 1981, Federal Register (46 FR 11126) for comprehensive definitions of the types of facilities.

- Surface Impoundments - facilities at which liquid wastes or other liquids are impounded or held. Surface impoundments are generally earthen structures designed to hold an accumulation of liquids or wastes containing free liquid.

- Waste Piles - facilities at which wastes, usually in a solid state, are placed on the land for storage or treatment.

- Land Treatment - facilities at which wastes (usually in a solid, semi-solid, semi-liquid, or liquid state) are spread on the ground for the purpose of treatment.

- Landfills - facilities at which wastes, usually in solid or semi-solid state, are placed into or on the land for permanent disposal.

- Seepage Facilities - facilities at which wastes (usually in a liquid, semi-liquid, or semi-solid state) are placed into or on the land for storage, treatment, or disposal. A seepage facility is designed with the objective of discharging liquids into the land. There are four types of seepage facilities:

  - seepage lagoons
  - drying beds
  - seepage pits
  - seepage beds

- Injection Wells - facilities at which wastes in a fluid (usually liquid) state are injected into the land under a pressure head greater than the pressure head of the ground water into or above which they are injected for disposal.

(b) Location of Disposal Facility - For each end product subcategory (or form of waste), mark (X) whether wastes are disposed of at this plant site (on-site) or at another site (off-site).

(c) Ownership of Disposal Facility - For each end product subcategory (or form of waste), mark (X) whether this disposal facility is owned by reporting company (company), another private company (private), or a municipality (municipal).

(d) Permitted Hazardous Waste Facility - For each product subcategory (or form of waste), mark (X) whether the disposal facility is permitted under any applicable State or Federal hazardous waste regulation.

(6) Method of Disposal

Briefly describe the specific methods used to dispose of asbestos waste. For example, if you wet the waste and place it in a bag or drum prior to disposal, that should be noted here.

(7) Additional Information

Submit any additional information to describe any steps taken during waste disposal to reduce the release of airborne asbestos fibers. If enclosing a separate description, check "Yes" on the form; if not, check "No" in the space provided.

K. Pollution Control Equipment

In this section, provide information on all air pollution equipment located at the plant site to control or remove airborne asbestos fiber. List each piece of equipment on a separate line on the form, even though identical units may be used at the plant site. Use the codes listed in this section for each piece of equipment being reported. For additional space, fill in and attach additional copies of the form. If the company has submitted portions of the required data to EPA previously and the data are still current, enter "EPA" in place of those data, and reference the address where the data were sent and the date they were sent.

(1) Item Number

Number each piece of equipment consecutively (one through the total number of pieces of equipment).

(2) Type of Equipment

For each item number, enter the appropriate abbreviation from the following list.

- Baghouse (BH)
  - Reverse Air (RA)
  - Pulse Jet (PJ)
  - Shake (S)
  - Other (O)

  For example, if the baghouse used is equipped for both reverse air and shake cleaning, enter (BH) (RA) (S).

- Scrubber (S)
  - Venturi (V)
  - Impingement (I)
  - Spray (SP)
  - Other (O)

  If the scrubber used is the venturi type, also enter the pressure drop in inches of water in parentheses. For example, if the range of pressure drop, is 40-60 inches, enter (S) (V) (40-60).

- Electrostatic Precipitator (ESP)
- Cyclone (C)
- Multiple Cyclone (MC)
- Other (O)

(3) Gas Stream Volume and Temperature

For each piece of equipment, enter the gas volume (in cubic feet per minute) and the operating temperature (in °F). Use actual

data for these entries, although estimates or design figures may be used if actual data are unavailable. Ranges (ex: 8,000-10,000 ACFM at (40-180 °F)) are also acceptable.

(4) Equipment Size

If electrostatic precipitators and/or baghouses are used, enter the total square feet of collecting surface area. For all other types of equipment mark (X) "N/A."

(5) Estimated Collection Efficiency

Enter the collection efficiency (percent), or an estimate of this value, of each piece of equipment. Mark (X) either design (D) or actual (A) to indicate basis for response.

(6) Normal Operating Schedule

Enter the normal number of operating hours either actual or estimated for each piece of equipment during 1981.

(7) Quantity Collected Annually

Estimate the quantity of material in pounds that is (or would be, given the design of the equipment) collected annually by each piece of equipment in 1981. Include all asbestos and non-asbestos materials in the total. If possible, estimate the percent (by weight) of asbestos in the collected material. Mark (X) either design (D) or actual (A) to indicate basis for reponse.

(8) Source of Emissions

Enter a brief description of the source of the emissions such as work area exhaust ventilation, curing oven, mixer, various, etc.

(9) Stack or Chimney

Indicate whether the air pollution control device discharges to a stack or chimney; check "Yes" or "No."

(10) Special Problems

If there is a special problem with particulate collection or with any specific piece of equipment, discuss it in the space provided. Be sure to indicate which piece of equipment is being discussed.

(11) Estimate the percent of plant exhaust air that is treated by the plant site's pollution control equipment.

Appendix A

DEFINITION OF TERMS

Several terms are used throughout the reporting form and the instruction booklet to describe the different kinds of asbestos products and how to report them.

Asbestos Mixture: a mixture which contains bulk asbestos or another asbestos mixture as an intentional component. An asbestos mixture can be utilized as a finished product or incorporated into other products.

Bulk Asbestos (or raw asbestos): any quantity of asbestos fiber of any type or grade, or combination of types of grades, that is mined or milled with the express purpose to obtain asbestos. The term does not include asbestos that is produced or processed as a contaminant or an impurity. Asbestos is a group of naturally occurring, inorganic, highly fibrous, silicate minerals, which easily separate into long, thin, flexible fibers when crushed or processed. Included in the definition are the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite.

End Product: the product subcategory that is either shipped from the reported site or imported into the United States.

Generic Name: a term that describes the coded product subcategory better than the subcategory name given on the form. If the product subcategory name on the form is adequate, use it.

Importer: a person or facility importing asbestos, in bulk form or as part of a mixture or article, into the customs territory of the United States. This definition includes:

- The person liable for the payment of any duties on the merchandise, or
- An authorized agent on his behalf (as defined in 19 CFR 1.11). Importer also includes, as appropriate:
  - The consignee;
  - The importer of record;
  - The actual owner if an actual owner's declaration and superseding bond has been filed in accordance with 19 CFR 141.20; or
  - The transferee, if the right to draw merchandise in a bonded warehouse has been transferred in accordance with Subpart C of 19 CFR Part 144. For the purpose of this definition, the customs territory of the United States consists of the 50 states, Puerto Rico, and the District of Columbia.

When two or more persons meet the same definition of "importer" for the same shipment, the principal in the transaction, not his agent or agents, should report.

NOTE: If reporting company purchased in the United States an asbestos product that originated outside the United States, do not report as an importer.

For reporting purposes, there are several classes of importers:

- An Importer of Bulk Asbestos imports bulk asbestos into the customs territory of the United States. Imported bulk asbestos is declared to the United States Customs Service upon entry as Tariff Schedule of the United States, Annotated, (TSUSA) numbers 518.1110-518.1160. Importers need report information only to the extent that the information is in their possession.

- An Importer of Asbestos Mixtures imports asbestos mixtures into the customs territory of the United States. Imported mixtures include, but are not limited to, merchandise declared to the United States Customs Service upon entry as Tariff Schedule of the United States, Annotated, numbers (TSUSA Number) 518.2-518.5, or other TSUSA Numbers that may pertain to asbestos mixtures.

- An Importer of Article(s) Containing Asbestos Component(s) imports an article that contains one or more asbestos components.

Miner and/or Miller of Asbestos: a person who either mines or mills asbestos. Mined or extracted asbestos-containing ore is further milled to produce bulk asbestos. Milling involves the separation of the fibers from the ore, grading and sorting the fibers, or fiberizing crude asbestos ore.

Primary Processor of Asbestos: a person who processes bulk asbestos to make an asbestos mixture or a product that contains asbestos. A primary processor who makes an asbestos mixture and then processes the asbestos mixture at the same site to make a different end product should report production of the final end product. Primary processing includes the mixing or repackaging of raw asbestos fiber.

Product Subcategory: the type of asbestos mixture or the type of end product listed and numbered on the form.

Secondary Processor of Asbestos: a person who processes an asbestos mixture that is then incorporated into that person's end product. Secondary processors use asbestos mixtures that are made at a site other than the site being reported. For instance, asbestos millboard may be purchased by a secondary processor, who could cut that millboard and incorporate it into an appliance.

Appendix B

HOW TO COMPUTE SUMMARIES OF MONITORING DATA -- INSTRUCTIONS AND WORKSHEETS

These instructions describe how to compute the arithmetic mean and standard deviation of the TWA values for each category of employees counted in column 4 of part H of the form. It is probably easier to compute the figures by working through one line at a time. For example, a primary processor who has employees working in the fiber introduction area should locate all monitoring data for those employees, and work through question 10 before beginning computations for the next production work category for that end product. A worksheet is attached to these instructions; after completing it, transfer your computations to part H of the form.

I. To compute the "mean" for the TWA values for a production work category, first list all of the TWA values for employees counted in the category. Do not include non-detectable TWA values in the following calculations.

For example, assume the following TWA values (listed in column A) for a production work category:

No.	(A) TWA Values	(B) Squares of Column (A)
1.	1.00	1.00
2.	1.50	2.25
3.	0.50	0.25
4.	1.75	3.06
5.	1.25	1.56
	6.00	8.12

After listing the TWA values in column (A) on the worksheet, square each value and enter the square in column (B) on the worksheet. The squares are used later to compute the standard deviation. Sum both columns.

II. Next, determine the number (N) of values. In this example, N = 5.

III. The "mean" is the sum of the TWA values in column A divided by the number of values (N).

In this example:

$$\text{Mean} = \frac{\text{Sum of TWA Values}}{N} = \frac{6.00}{5} = 1.20$$

IV. To calculate the "standard deviation" of these values, first compute the "variance" according to the following formula.

In this example:

$$(V) = \frac{1}{N-1} \times \left[\text{Sum of Column B} - \frac{(\text{Sum of Column A})^2}{N}\right]$$

$$= \frac{1}{5-1} \frac{[8.12 - (6.0 \times 6.0)]}{5}$$

$$= 1/4\ [8.12 - 7.2]$$

$$= \frac{.92}{4}$$

$$V = .23$$

V. Finally, the standard deviation (SD) is the square root of the variance.

In this example:

$$SD = \sqrt{V}$$

$$= \sqrt{.23}$$

$$SD = 0.48$$

The arithmetic mean is entered in column 5 on the form, and the standard deviation is entered in column 6 on the form.

Worksheet

I. No.	(A) TWA Values	(B) Squares of Column (A)
1.		
2.		
3.		
4.		
5.		
Total	_____	_____

II. Number of TWA values (N) = _____

III. $\text{Mean} = \dfrac{\text{Sum of Column A}}{N}$

IV. $\text{Variance (V)} = \dfrac{1}{N-1}\left[\text{Sum of Column B} - \dfrac{(\text{Sum of Column A})^2}{N}\right]$

$= \dfrac{1}{\square}\left[\underline{\square} - \dfrac{\square^2}{N}\right]$

$= $ _____

V. $\text{Standard Deviation (SD)} = \sqrt{V} = \sqrt{}$

$= $ _____

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

September 8, 1982

To: Health and Environmental Affairs Committee

Subject: Draft Report of the study "Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos"

On July 19, 1982, the Institute sent Members of this Committee a copy of a draft report on the above study, sponsored by NIOSH. The work is that done by Dr. Nicholson of Mount Sinai under contract for NIOSH. In my earlier notice, I advised that the AIA planned to comment to NIOSH on this work.

Mr. Pigg, at AIA, has sent along a copy of his Association's comments to NIOSH. A copy is enclosed.

E. W. Drislane
Executive Director

EWD/e

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

September 1, 1982

MEMORANDUM FOR: Ms. Grisham, Nuturn Corporation
Messrs. Barton, Reddaway Manufacturing, Inc.
Goldfarb, U.S. Automotive Mfg., Inc.
Marsh, Raymark, Inc.
Miller, Prudential Supply Corp.
Riopelle, Bendix Corporation
Shaines, P.T. Brake Lining Co., Inc.
Smith, Brake Supply Co., Inc.
Sydor, National Friction Products

SUBJECT: AIA/NA comments on final draft of report to NIOSH entitled " Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos" by William J. Nicholson, Ph.D., Mount Sinai School of Medicine, New York City.

Your attention is invited to the enclosed copy of this Association's comments on the final draft of Dr. Nicholson's NIOSH-sponsored study. According to NIOSH personnel, there are currently no plans to publish the study.

A copy of the final draft report is available from this office on request.

B. J. Pigg
Executive Director

BJP/dh

Enclosure

cc: E.W. Drislane, FMSI
James F. Reis, Johns-Manville Corp.
James R. Weber, Bendix Corp.
Hans Weill, M.D.

ASBESTOS INFORMATION ASSOCIATION
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September 1, 1982

Sanford Leffingwell, M.D.
NIOSH
R.A. Taft Laboratories
Mail Stop F-5
4676 Columbia Parkway
Cincinnati, OH 45226

Dear Dr. Leffingwell:

I am writing you on behalf of the Asbestos Information Association/ North America (AIA/NA), a non-profit organization whose member companies are engaged in the mining, milling, manufacturing, and marketing of asbestos and asbestos containing products, to comment on the final draft report of the study, "Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos."

The overall conclusion of AIA/NA is that the draft represents an unfocused and inconclusive study with numerous inconsistancies. Even with the caveat that it is subject to revision, the present draft does not show promise of ever becoming an adequate study of the possible effects of asbestos upon occupationally exposed brake lining repair and maintenance workers.

Perhaps the single greatest problem of the draft is with the study population, both in terms of how it is presented and with the small number of participants in relevant categories free of confounding factors. The study begins straightforwardly enough by identifying two groups to be examined, one of exposed brake maintenance repair workers, and a control group with "similar employment circumstances but without brake maintenance work." However, we are soon told that due to the confounding factor of asbestos exposure in other circumstances and the low participation in the control group, one additional group, UAW 595, would be added to the study population.

The result of these initial problems with the study population is a confusion as to what is being compared to what, which group constitutes the exposed and which group constitutes the control population, and what is the total number of the study population as well as the exposed and control groups in it.

Neither the tables nor the text of the study serve to dispell this confusion, but rather add to it. From Table 1, for example, it appears that there are 909 participants in the study, of whom 692 are in the exposed group and 217 are in the control group. Later, from Table 5 we learn that there are 123 participants from UAW 595, added earlier

to supplement the control group. This addition brings the number in the control group to 340, for a total study population of 1032, yet the total number of participants listed in Table 5 is 1034.

The makeup of the study population is further obscured by errors in addition and by the inclusion of participants from outside the five identified union groups. Page 8, for instance, speaks of "916 individuals from the four groups listed above." This figure obviously carries over arithmetical errors found in Table 1. Again, on Table 6, we learn for the first time of 5 individuals of unknown union affiliation for whom readible X-rays were available, for a total of 983 readible X-rays, given on page 18. While such discrepancies are small, and may be accounted for in a final revision, they may have been avoided in a more preliminary stage had the presentation of this basic data been presented in a more straightforward and better organized manner. The study, after all, has been worked on for nearly five years.

Such a less convoluted presentation, however, would have disclosed the inadequacy of the chosen study population for the purposes of the study. This inadequacy is reflected in the summary points of the study, of which only 2 out of 8 (numbers 1 and 4) deal directly with brake maintenance workers. The remaining 6 summary points appear to be beyond the intended scope of the study and are indicative of its unfocused nature.

Summary points 1 and 4 themselves appear to be contradictory and expressed in a misleading fashion. On page 8, the study states: " The two most important parameters for the assessment of health effects from asbestos exposure are the manifestation of small irregular opacities on an interpretable X-ray and restrictive pulmonary function deficits." Summary point 1 concludes, in part, " A greater prevalence of X-ray abnormalities is found among garage mechanics who repaired brakes than among blue collar controls or garage workers who do not engage in brake or auto body work." Summary point 4 reads, " The pulmonary function parameters of garage mechanics engaged in brake work are no different from non-garage workers and other general population controls." There thus appears to be no agreement between the two parameters for the assessment of health effects from asbestos in this study.

However, closer inspection of the data underlying points 1 and 4 leaves even these conclusions open to question. Tables 17a and 17b appear to be the basis for summary point 1. These two tables give the percentage of X-ray abnormalities according to years of garage work and years since onset of garage work, respectively. They also are the only two tables which deal specifically with the population which properly should be the subject of this study, those individuals employed in garage work analysed as two groups, with one group engaged in brake work and another doing no brake work. The total percentages for both tables are identical, 23% for the brake work group and 21.2% for the no brake work group. While a greater percentage is exhibited by the brake work group than the no brake work group, the difference between them can hardly be considered significant. Perhaps in recognition of this, summary point 1 goes on to attribute significant differences in percentages in the categories of those

with 30 or more years of employment compared to workers of lesser service. Yet this conclusion must take into account the small number of individuals involved, particularly among the control no brake work group in the categories of more than 30 and more than 40 years employment. These figures are 12 individuals with more than 30 years employment and 3 individuals with more than 40 years employment. It would be difficult to attach any valid significance where such small numbers are involved.

Similarly, with regard to summary point 4, involving pulmonary function parameters, the problem with the selection of the study population is again a factor. While members of UAW 595 were included in the X-ray portion of the study, they were not included in the pulmonary function testing. The result is that between the X-ray and the pulmonary function data we are dealing with 2 differing study populations, which further confounds any conclusions which may be drawn.

Despite these substantial inadequacies, the study is permeated throughout with a tone which attempts to attach some significance to the possible health effects which may be associated with the low levels of asbestos exposure in brake maintenance work. Although referring several times to "significant asbestos exposures" during such work, the study makes no attempt to quantify such exposures, again limiting any possible utility of the study.

It is unfortunate that considerable government funds were expended in the compilation of such a seriously flawed study as represented by the final draft report. Futhermore, it is difficult to see how, with the existing data, it can be reformed into a scientifically acceptable document. Nonetheless, should this be attempted, AIA/NA requests an opportunity for further comment, as we have dealt here only with the study's most obvious faults.

Please know that this Association appreciates the opportunity to receive and comment on this study.

Sincerely,

B. J. Pigg
Executive Director

BJP/dh

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O. 7 4 4

August 25, 1982

DEPOSITION AND EXAMINATION OF INSTITUTE RECORDS RELATING TO ASBESTOS LITIGATION

This is to advise the Membership that the Institute Office, with Legal Counsel, has spent several days this month involved with asbestos litigation. In two cases, we have produced our records to outside Attorneys and in the most recent case I gave a deposition. As both Counsel and Paralegals from his office have been involved, this has not been without cost to the Institute. In addition, it has consumed a considerable amount of my time.

We are not defendants in these cases, but it would appear that Member Firms are involved. The cases for which our records have been subpoenaed were:

Counsel	Case	Court
Porzio, Bromberg & Newman, Morristown, NJ (for the Defendants)	Orvil T. Braswell and Parlee K. Braswell, Plaintiffs vs. Johns-Manville, et al, Defendants and related Worldbestos cases	Southern District of Indiana, Indianapolis Division
Blank, Rome, Comisky & McCauley, Philadelphia, Pa. (for the Plaintiffs)	Janet M. Rice Administratrix of the Estate of Paul S. Rice & Nancy W. Rees, Executrix of the Estate of Kermit M. Rees and Nancy W. Rees in her own right vs. Johns-Manville Corp. et al	United States District Court for the Eastern District of Pennsylvania

The papers that were subpoenaed were described as follows in the Indiana Case:

> All documents included in the following: Minutes of all trade association meetings; membership records; correspondence generated by and received by Friction Materials Institute relating to asbestos; any and all medical articles, trade publications, newsletters, periodicals and any other publication concerning the potential health hazards of asbestos; and studies received or sponsored by Friction Materials Institute or proposals for same concerning the potential health hazards of asbestos.

The papers for the Pennsylvania cases were described in the subpoena as follows:

1. Membership lists of the Friction Materials Standards Institute from inception of the Institute to the present:

2. Membership lists of the Asbestos Study Committee of the Institute from inception of the Committee to the present;

3. Minutes of all meetings of the Institute's Board of Directors, general membership, Asbestos Study Committee, or any other committee or subdivision of the Institute in which the use of asbestos in brakes and/or friction materials was discussed;

4. Reports, bulletins and/or any other communication about the health hazards associated with asbestos exposure which were prepared by and/or distributed by the Institute or any of its subdivisions to all or part of the general Institute and/or to the public;

5. Reports, bulletins and/or any other communications about the health hazards associated with asbestos exposure which were received by the Institute from any of its members, any government agency, any trade association, and/or any other person or entity.

In addition, one Member of the Institute has asked for permission to review papers of similar content, and with our Counsel's approval such inspection will be made in the near future.

The foregoing is sent to the Membership as a matter of information.

E. W. Drislane
Executive Director

EWD/dr

Distribution:
Delegates and Alternates
Health and Environmental Affairs Committee

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 4 3

August 25, 1982

OSHA GUIDELINES FOR REPEATED VIOLATIONS

Mr. Armstrong, Chairman of our Health and Environmental Affairs Committee, has suggested that the enclosed guidelines for handling repeated OSHA Violations be distributed to the Membership.

Two points in the guidelines are summarized as follows:

1. To be cited as a repeated violation, the violation must occur at the "same establishment" within three years of the date the original violation became a final order, or within three years of the correction date, whichever is later.

2. A multi-facility employer would not be cited if the violation recurred at a plant or business other than the one originally cited.

The full text of this OSHA directive is enclosed.

E. W. Drislane
Executive Director

EWD/dr

Distribution:
Delegates and Alternates
Health and Environmental Affairs Committee
Active Members - List B

federal register

Friday
July 30, 1982

Part VII

Environmental Protection Agency

Asbestos Reporting Requirements

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 763

[OPTS-84004B; TSH-FRL 2124-4]

Asbestos Reporting Requirements

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This final rule, under the authority of section 8(a) of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2607(a), requires reporting to EPA by asbestos manufacturers, importers, and processors. The information sought includes data on the quantities of asbestos used in making products, employee exposure data, and waste disposal and pollution control equipment data. Reported information will be utilized by EPA and other Federal agencies in considering the regulation of asbestos.

DATE: This regulation becomes effective on August 30, 1982.

FOR FURTHER INFORMATION CONTACT: Douglas G. Bannerman, Industry Assistance Office (TS-799), Environmental Protection Agency, Rm. E-511, 401 M St., SW., Washington, D.C. 20460, Toll free: (800-424-9065). In Washington, D.C: (554-1404). Outside the USA: (Operator-202-544-1404).

SUPPLEMENTARY INFORMATION:

OMB Control Number: (2000-0478).

I. Introduction

EPA proposed a rule in the Federal Register of January 26, 1981 (46 FR 8200) under section 8(a) of the Toxic Substances Control Act (TSCA), to obtain information on industrial and commercial uses of asbestos. The Agency received 80 written comments on the proposal and held one public meeting. This preamble explains the provisions and procedures of the final rule and the changes EPA has made to reduce the burden of the rule.

The basic design of the rule remains unchanged; it divides the asbestos industry into two groups for reporting purposes. EPA will require detailed information on EPA Form 7710-36, "Reporting Commercial and Industrial Uses of Asbestos," from the first group—persons who mine, mill, or import bulk asbestos, or process it to form an asbestos mixture or product, such as asbestos paper. The latter persons are called "primary processors of asbestos." This first group must report within 90 days of the effective date of this rule.

EPA will require reporting in two phases for the second group—secondary processors of asbestos (secondary processors of asbestos make products from asbestos mixtures, not bulk asbestos), and persons who import asbestos mixtures or other products that contain asbestos. In the first phase, companies will have 60 days from the effective date of the rule to identify themselves and the asbestos mixtures they process or import on EPA Form 7710-37, "Reporting Secondary Processing and Importation of Asbestos Mixtures." EPA will then select a sample of respondents from this identification phase to complete the detailed EPA Form 7710-36 in the second phase of reporting for this group.

After considering the substantive comments to the proposed rule, the Agency has changed several provisions of the proposed rule to reduce the burden on repondents without significantly decreasing the value of the information that this rule will collect. The two primary changes from the proposal are (1) respondents must submit data from only 3 years on EPA Form 7710-36 and (2) the recordkeeping requirements for customer lists and monitoring data are eliminated. A full discussion of the substantive comments and EPA's responses to those comments can be found in a document entitled "Public Comments on the Proposed TSCA Section 8(a) Asbestos Reporting Rule" which is part of the public record for this rule and is incorporated into this document.

II. Purpose of the Rule

This rule will obtain current information about major aspects of asbestos manufacturing, processing, and importation to support the Agency's asbestos risk investigation. Under TSCA, EPA is examining the costs and the benefits to society from all applications of asbestos in order to decide, within a range of potential options, what actions may be necessary to adequately protect the public health. The investigation is considering the various Federal authorities now regulating different aspects of asbestos exposures, to examine the effectiveness of current regulatory activities. In addition to providing data for the TSCA investigation, this information rule will support decisions on a number of potential Federal actions by providing a total picture of the current situation that will help focus further activities in the most appropriate manner.

Information obtained by this rule, along with already available data, will be used to describe the exposures and economics of asbestos use to the extent needed for determining the cost and effectiveness of potential risk-reduction steps. The Agency will consider this reported information in calculating the extent of exposure from asbestos and in determining where the exposures present an unreasonable risk. The Agency cannot now adequately determine what asbestos-containing products are currently made and who makes them. While there are over 3,000 existing patents for applications of asbestos, there is no information on which ones have been used commercially. For example, persons who commented on the proposed reporting rule identified some products which the Agency had previously not identified as containing asbestos. Individual reports which identify firms, production sites, and asbestos products will provide an inventory of asbestos use that is not presently available.

The regulatory investigation now underway is examining the separate and cumulative exposures to all types of populations that occur during production, manufacturing, use, and disposal of asbestos products. Concurrently, EPA scientists are developing a health risk assessment to use in quantitatively predicting adverse health effects resulting from exposure to asbestos. Information from this rule will permit the Agency to attribute accurately the risk in specific industries or from specific products to a portion of the overall cumulative risk. The Agency will use the data to identify areas where exposure levels should be reduced. The reports will also identify industries and products that require no further consideration.

The Agency is assessing all available information and conducting factual discussions with industry. The information collected through this rule will offer a neutral basis from which the Agency can establish agreements, as appropriate, for industry to take voluntary steps to reduce the levels of risk. The Agency will encourage industry to adopt voluntary actions to control exposure levels.

EPA expects to initiate regulatory proceedings to control exposures in cases where non-regulatory actions are not appropriate. The Agency will examine the various Federal statutes to find the most appropriate authority to effect the necessary control. If TSCA provides the proper authority, the Agency may take actions to control specific uses of asbestos which involve risks that are found to be "unreasonable" within the meaning of section 6 of TSCA. The Agency may

determine that labelling of products would sufficiently reduce the risk.

If the Agency determines that regulatory measures are warranted under the authority of section 6 of TSCA, the Agency will use information from this rule to support regulatory impact analyses required under Executive Order 12291. A complete data base will allow the Agency to choose and document better the most cost-effective regulatory approach. The Agency will consider all relevant information that it can reasonably obtain from the current manufacturers and processors who would be most affected by regulations.

A. Need for the Data

This reporting is being required because adequate data are not otherwise available for the present investigation to determine where unreasonable risks from asbestos exist and the appropriate approaches to reduce those risks. Information that is currently available to the Agency is sufficient as the basis for qualitative generalizations about both the value of using asbestos in its various application and the risks from those activities. Yet, the Agency has no set of information that it can reference in quantifying either the risk from or the value of the various products and product subcategories. Before drawing any final conclusions about asbestos, the Agency needs a data base that it can use to characterize the current situation with a greater degree of accuracy.

EPA has examined all information presently available to Federal agencies and solicited information from industry prior to the issuance of this rule. Agency personnel and contractors reviewed the extensive literature concerning asbestos; obtained information from other Federal agencies; and developed new data and made site visits when possible. The search for information is described in an internal EPA document entitled, "Technical Information Summary" (TIS), which is part of the public record for this rule. The TIS summarizes the various sources of available information both in published literature and from Federal agencies, and it evaluates the usefulness of the information to the Agency. Additionally, the TIS describes efforts by EPA contractors to conduct necessary analyses and the problems they have encountered.

Briefly, the "Technical Information Summary" contains the following conclusions about Government and industry documents that are available: While information is available generally to characterize the industries that make products from bulk asbestos, very little data exist on secondary processors. Further, all of the information that is available is inadequate in several respects. The basic data source of asbestos consumption patterns is from the Bureau of Mines. Many of the documents concerning industrial and commercial uses of asbestos cite the Bureau of Mines data. However, the data used by the Bureau of Mines to determine asbestos consumption are from an annual voluntary survey of only a portion of asbestos processors and, for instance, do not count 40 percent of the bulk asbestos we know is imported. The Bureau of Mines estimates that the asbestos consumption figures are accurate only to ±50 percent. EPA expects to attain a higher degree of accuracy because virtually all of the processing of bulk asbestos will be reported under this rule and this production will be reported according to well-defined categories of both companies and products. In addition, EPA will be able to characterize all industry segments with greater confidence from data obtained in the representative survey. Agency contractors who have developed the preliminary analyses for the asbestos investigation participated in the design of these information requirements to ensure that any gaps and shortcomings of existing information will be corrected to the extent possible.

Available information provides general characteristics of the industries which make and process asbestos products. However, the information is already in an aggregated form and discrete components cannot be separated from the totals. For instance, at this time the Agency cannot characterize many products because data about the asbestos products are mixed in aggregates with data about similar, non-asbestos products. The underlying data of the aggregates, which are needed for the Agency analyses, are not available in most cases. For example, the Bureau of the Census is precluded under Title 13, U.S. Code, from disclosing individual reports it receives. Further, the information is too superficial to analyze separately subcategories of products. In some areas, as is the case for most secondary processors, existing information is too sparse to enable the Agency to make any but the most general estimates.

The lack of detail in available information means that the Agency is not able to analyze the effects that regulatory or voluntary actions on a single product may have on a multi-product industry and to quantify expected reductions in risk. This rule will characterize activities at the plant-site level, which will permit the Agency to analyze how specific actions would affect various elements of the analyses.

Most of the existing information consists of estimates that are based on data which may not reflect the current situation because the data were gathered many years ago. The most comprehensive information available covers the years 1975–1976, and it was generated to support and respond to OSHA's proposal in 1975 to lower the asbestos workplace standard. Present information indicates that significant changes have occurred. For instance, the U.S. Bureau of Mines reports that apparent consumption in the United States of raw asbestos fiber declined 36 percent in 1980, with a drop in consumption from 658,847 short tons in 1976 to 358,703 short tons in 1980. Changes have also occurred in the number of employees and the patterns of asbestos use. Information gathered through this rule will ensure a representative picture of the present situation and it will update or verify where possible data that already exist.

The TIS reviews EPA's search for information within EPA and from other Federal agencies. Data have been acquired from the EPA Compliance Data System Asbestos National Emission Standard For Hazardous Air Pollutants (NESHAP) file, inspection data from both the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA), reports from CPSC's General Order (see the following paragraphs), and importer data from the U.S. Customs Service. The Agency has acquired and evaluated information from these agencies, and concluded that these data do not adequately substitute for the information to be gathered by this rule.

A significant source of information on exposure levels in industry is the Occupational Safety and Health Administration (OSHA), which has performed workplace inspections since it promulgated the workplace exposure level standard in 1972. OSHA records contain a great deal of anecdotal information but, for the following reasons, few generalizations can be drawn about industry-wide exposure levels or the number of workers that are exposed. Because OSHA does not uniformly inspect all industries, it is difficult to make statistically valid extrapolations for all of industry. Moreover, approximately 80 percent of OSHA's inspections are in response to complaints, and cannot be extrapolated to make industry-wide estimates.

Inspections responding to complaints generally examine only the work area of concern to the complainant and, therefore, the data generally do not represent the facility-wide exposure situation. Finally, reports are available on industries in only 34 states, because the other states have been authorized by OSHA to conduct their own inspections.

The Consumer Product Safety Commission (CPSC) required the manufacturers of specified consumer products to submit certain information about how asbestos is used in those products under a General Order on December 22, 1980 (45 FR 84384). The Agency is examining the submitted data where respondents did not object to CPSC's sharing the reports with EPA. This rule contains a provision whereby companies need not report the same information to EPA if it was already reported to CPSC without objection to CPSC's sharing the data. However, the data from this General Order does not fully substitute for this rule because the Agency is interested in subjects beyond what CPSC asked, such as employee exposure and plant-site emissions.

Agency contractors have encountered a great deal of difficulty in performing their assessments with information that is available. A principal problem is that aggregate information about broad product categories is all that is available. This shortcoming in available data is significant because the contractors have found large variations in the ways companies process asbestos, control emissions, and dispose of wastes. Their draft reports contain many generalities and qualify many findings by citing the unreliability of available data or the absence of certain types of data. The contractors have individually attempted to gather additional data from industry, but have found that companies are reluctant to disclose confidential business information. Agency staff have intervened by officially requesting needed information; however, very little data has been submitted as a result.

B. Uses of Collected Information

The section 8(a) data will be used for analyses in the TSCA regulatory investigation and will be useful to other EPA offices and other Federal agencies. In preparation for obtaining these data, the Agency has developed plans to automate the information in a manner that will maximize the utility of the information to the Agency, other Federal agencies, and the public. A full description of how the Agency plans to use the reported data including computer-generated data outputs, can be found in the Information Use Plan that is part of the public record for this rule.

In the TSCA investigation, the Agency will use the information both to describe the current situation and to forecast changes either in the absence of additional regulation or as a result of new actions. Analyses will be conducted on several levels: industry-wide; by product category; and product subcategory. The Agency will use reported data to prepare exposure assessments, analyses of control options, and, if necessary, regulatory impact analyses.

The first analysis of the reported data will be the exposure assessment, where the operational objective is the development of sufficient data to determine cumulative human exposures. For the exposure assessment, the rule will identify the primary processor manufacturing sources, counting both workplace exposures (numbers of workers according to their general category of work and their exposure levels by product line) and the exposures to populations living around the plant-site (environmental releases from pollution control equipment and from uncontrolled vents). The size of the exposed general population and associated exposure levels will be computed using recognized techniques to analyze environmental pathways and monitoring data that provide the basis for modeling. In a sample survey, the Agency will learn how asbestos mixtures are used by secondary processors, who will provide facts that characterize exposure levels for their operations, the size of their workforce, and exposures to the general population. Primary and secondary processors will report the kinds and quantities of asbestos-containing waste they generate, which will permit analysis of possible fiber release into the atmosphere from waste sites. Importers will report the types of asbestos-containing materials that currently enter the U.S. customs territory. The Agency will relate production reports by secondary processors and importers with existing data to estimate the kinds of populations that may be exposed during the installation, use, removal, and disposal of the end-product.

This exposure assessment will be performed for each asbestos product category, and in most cases the Agency will assess exposures from product subcategories. The exposure factors will be used as input to appropriate dose-response studies to establish a risk factor that describes the estimated number of premature deaths to all populations as a result of the asbestos activity that is assessed. In the case of asbestos, the number of premature deaths and related health care costs are the primary societal costs that can be quantified. The assessments for each category will be considered as a whole, both to determine the overall extent of risk presented by asbestos and to attribute to each category or subcategory their portion of the total risk. As already stated, the Agency will concentrate its further efforts on products that appear to pose the greatest potential for human exposure.

The risk assessment may show that the total risk is so small that no further consideration is warranted. Alternatively, it may identify a particularly hazardous, apparently unnecessary situation that the Agency may want to investigate further. If the latter is the case, the Agency would examine the particular situation to find if there is a way to reduce the exposure levels. The particular situation could be referred to OSHA if it is a correctable workplace problem. The Agency would also examine the situation to determine the cost and availability of substitutes. This rule will not obtain information about substitutes; the Agency believes that it already possesses sufficient information to conduct analyses of substitutes. A great deal of information about the development of substitutes has been submitted to the Agency since the initiation of the asbestos investigation. In addition, EPA and CPSC jointly sponsored a national workshop on substitutes for asbestos in July 1980, where a great deal of information was presented. A record of the workshop can be found in the EPA publication "Proceedings of the National Workshop on Substitutes for Asbestos", EPA-560/3-80-001, which can be acquired from the National Technical Information Service (NTIS).

The Agency will also examine a hazardous situation to determine why it exists and the likelihood that it will continue. With the level of risk already defined, Agency analysts would determine the value and benefits that can be attributed to that situation. With a baseline understanding of the current economic value, Agency analysts can forecast the situation as it will be several years later if uninterrupted by regulation. Trend analysis permits the Agency to study the effects of market forces that encourage or discourage growth. Baseline data can be used to predict the future situation, which can then be compared to projections of regulatory effects to estimate the incremental change that could result from various regulatory options. The

principal economic measures that will be determined from data obtained through this rule are the value of production, the importance of the asbestos activity to the total value produced at the reported sites, the number of employees, the relative value of imports to exports, and the relative value of production to the Gross National Product. These measures will illustrate the monetary importance of the product to the plant site, to the company, to the total asbestos market, to the nation, and to the balance of trade.

Primary processors will report the value of their production for the last three years, describing the amount made for both export and domestic markets. Data from three years will permit analysts to use a multi-year average that is more reliable than data from a single year. Primary processors will report their consumption of bulk asbestos each year and estimate the relative value of their asbestos activity to total production at the plant site. Secondary processors will report the production of end products in which they incorporate the asbestos material and the purpose of including that material in the product. Both types of processors will report the total number of employees at the plant site as well as the number of production employees making subcategories of end products. With this detailed information, the Agency will be able to predict the future value of production and to establish what might be the economic effects of regulation.

Where the Agency finds that regulatory proceedings are appropriate, it will, through this rule, already have collected information necessary to describe fully the expected effects of the possible alternatives and to perform the analyses required by E.O. 12291. Thus, a complete data base provided by this rule will preclude the need to obtain additional data later in the investigation, which would delay resolution of the investigation. Timely action will benefit the Agency, industry, and the public by providing a means to take immediate action that protects public health and by removing a cloud of uncertainty over other uses of asbestos.

The primary purpose of gathering these data is to support the TSCA investigation. However, as noted earlier, other EPA offices and Federal agencies may also utilize the data base in any studies that involve the commercial and industrial uses of asbestos. EPA's Office of Air Quality Planning and Standards (OAQPS) is reviewing the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP). Data from this rule that characterize and quantify emissions from stationary sources, the current economics of the industry, and its pollution control practices will be of value during the appraisal of this 1973 standard. EPA's Office of Solid Waste (OSW) may develop guidelines for the handling and disposal of asbestos-containing wastes. OSW expects to use data from this rule that quantify the kinds of waste presently generated by manufacturers and describe how and where those companies currently dispose of their wastes. Information that characterizes the kinds of asbestos-containing waste and current waste disposal practices will permit analysts to determine the relative degree of hazard posed by waste disposal activities. The Consumer Product Safety Commission (CPSC) is examining consumer products to determine what products may pose a chronic hazard to consumers. EPA has coordinated the data requirements of this rule with CPSC to eliminate duplication and to ensure that the reports will be useful to the CPSC investigation. This rule will provide a listing and quantification of imported and domestically produced consumer products containing asbestos which is not presently available. OSHA and MSHA have supported this rule throughout its development, because a current listing of companies, products, numbers of employees, and exposure levels would be very useful in reviews of the asbestos workplace exposure standards.

III. What to Report

EPA has developed two forms which are to be completed by respondents. The composite form, EPA Form 7710-36, "Reporting Commercial and Industrial Use of Asbestos," (hereafter referred to as the "Primary Form"), has individual sections for reporting data about products, production, asbestos consumption, employees, workplace exposures, waste and disposal, pollution control equipment, and estimated quantities of asbestos emissions. Production and importation from 1979–1981 will be reported by category of product, rather than by individual product lines. Respondents will fill out the sections that apply to them. Each respondent is to complete the relevant sections of the form depending on the activities of the reported plant site. The instructions to the form clearly list the sections that are to be completed by miners and millers, importers of bulk asbestos, and primary processors respectively. Those persons will complete all applicable sections of the Primary Form, and will report all asbestos importation and processing activities in the first reporting phase. In addition, the Primary Form contains separate sections to be completed in a second reporting phase by a sample of persons who are only secondary processors and importers of asbestos-containing products. Persons from those segments who are selected to complete the Primary Form during the sample survey will complete the applicable sections (see discussion below in unit VI, "Reporting Procedures").

EPA Form 7710-37, "Secondary Processing and Importation of Asbestos Mixtures," (hereafter referred to as the "Secondary Form"), is a short survey form which requires identification of asbestos mixtures or components, the amounts consumed or imported in 1981, and the products into which these mixtures and components are incorporated. The Secondary Form, to be completed by secondary processors and importers of asbestos-containing products, will serve several purposes for the Agency. The procedural purpose of the Secondary Form is to permit EPA to identify the companies in these groups in the least burdensome manner so that only a representative sample of the groups will be required to complete the Primary Form. The information from the Secondary Form, because it identifies firms and products and production amounts, will in itself provide EPA with valuable information. Data from the Secondary Forms will show the breadth of the secondary processor population and the variety of asbestos-containing products that are presently manufactured or imported. Finally, the reports of the quantities of asbestos mixtures that were consumed or imported in 1981 will permit EPA to gauge the present levels of processing and importation of asbestos products. These data will be used in estimating potential worker and consumer exposure and in judging the economic consequences of alternative options. In addition, knowing the products of secondary processing will support determinations of the availability of substitutes.

IV. Who Reports

This rule defines who must report and what to report according to the industrial activity of the respondent during 1981. The Primary Form must be completed by all persons who mine, mill, import, or process bulk asbestos. The Secondary Form must be completed by secondary processors or persons who import asbestos mixtures or articles containing asbestos components. Some

of these persons will be selected subsequently also to complete the Primary Form. This section will clarify the meaning of some of these terms that are specific to this rule.

Under this rule, a manufacturer is a person who mines or mills (produces) bulk asbestos or a person who imports asbestos either as bulk asbestos or as part of a product. Persons who, in addition to manufacturing, also process their products will report as both manufacturers and primary processors, as described below. This rule does not require reports by manufacturers or processors of products which contain asbestos as a contaminant or an impurity. While the Agency is concerned about the health risk posed by fibrous minerals in many ores or other products, this subject is not within the scope of the present rule.

TSCA defines a processor, in part, as a person who prepares a chemical substance of mixture, after its manufacture, for distribution in commerce. This rule classifies processors into two groups according to their starting material. "Primary processors of asbestos" are those whose starting material is bulk asbestos. "Secondary processors of asbestos" are those whose starting materials are asbestos mixtures.

A primary processor starts with bulk asbestos and makes a mixture that contains asbestos fiber. A primary processor may simply mix or repackage different types or sizes of fiber and then sell that product. Such mixing or repackaging of fibers is considered primary processing of bulk asbestos for the purpose of this rule. Asbestos mixtures are products to which asbestos fiber has been intentionally added and which can be used or processed further and incorporated into other products. For example, asbestos cement, asbestos paper, and asbestos-reinforced plastics are asbestos mixtures. In some cases, a primary processor further processes the asbestos mixtures. If so, the person is also a secondary processor. For instance, asbestos paper can be further processed to incorporate it into an article, or asbestos-reinforced plastics can be further processed to make vinyl-asbestos floor tile. Under this regulation, persons who are involved in both primary and secondary processing activities at the reported plant site must report both types of activities on the Primary Form. Only persons who are solely secondary processors at the reported plant site report as secondary processors.

"Secondary processors" are those who start with asbestos mixtures and incorporate them into their own products. For example, persons who fabricate asbestos cement sheet by cutting the sheet to make an electrical switch board, or persons who make garments by cutting an asbestos textile, are secondary processors. A person who fabricates asbestos cement sheet by cutting it to a specific dimension for a customer is a secondary processor. An automobile manufacturer is a secondary processor if he incorporates asbestos felt into an automobile as a hood insulation blanket or makes heating vent ducks from asbestos paper. A paint formulator is a secondary processor if he purchases a paint that contains asbestos and reformulates the paint by adding some agent to give the paint special properties for specific applications. A complete list of categories of asbestos-starting materials and products may be found in EPA Forms 7710-36 and 7710-37.

Those who import an asbestos mixture or an article containing an asbestos component(s) are required to identify themselves and the asbestos component(s) of the imported product. By this requirement, EPA is attempting to determine what asbestos-containing products are being distributed to consumers and to industry. This will enable the Agency to estimate the total health risk posed by asbestos, including the risk from imported products. The Agency recognizes that there is a large universe of asbestos-containing products that are imported, and that some importers may not know that discrete components of imported merchandise contain asbestos. To ease the burden on companies that import a number of products that may contain asbestos, this rule requires importers to provide information relating only to the products listed in the reporting forms. Therefore, in some cases, EPA will not learn of or obtain data on all imports that contain asbestos. However, the lists of products are very comprehensive and EPA expects to obtain information on most imports that contain asbestos. Some products, such as automobiles, are deliberately omitted because the Agency can otherwise obtain necessary information. Importers should note that under this rule, they are not required to conduct extensive research or to contact the foreign manufacturer to learn this information. Thus, under the rule, importers are required to report to the extent that this information is in their possession.

This rule requires reporting by manufacturers (including importers) and processors of asbestos mixtures. Section 8(a) states that reporting by manufacturers or processors of mixtures should be required only when the Administrator determines that it is "necessary for the effective enforcement" of TSCA. Those who manufacture or process asbestos mixtures are also necessarily processors of asbestos, the chemical substance. Therefore, the "effective enforcement" finding is not needed. Nevertheless, the characterization of these products and processing activities is essential to the asbestos investigation and to the exent that such persons can be regarded as manufacturers or processors of mixtures, the Administrator finds that it is necessary for the effective enforcement of TSCA. For a more detailed discussion of this issue, see the preamble to the proposed rule at 46 FR 8204, which is hereby adopted.

V. Exemptions From the Rule

The Agency is exempting certain classes of potential respondents from the requirements of the rule. The exemptions are designed to reduce the overall burden of the rule while still obtaining sufficient information for analyses that are planned.

All companies employing 10 or fewer employees are exempted from the requirements of this rule. EPA estimates that over 40 percent of companies not otherwise exluded will be exempted as a result of this provision, while firms that account for approximately 97 percent of employees and sales will still be included. Further discussion of this provision can be found below in unit XIII, "Regulatory Flexibility Act."

Certain secondary processors are excluded from this rule. Secondary processors are exempted if they apply, assemble, install, erect, or consume asbestos products without modifying or fabricating the asbestos products. For instance, an appliance manufacturer who installs electric motors containing asbestos components is excluded if the motor is made elsewhere. Similarly, an automobile manufacturer need not report the installation of pre-fabricated hood insulation blankets if no fabrication is required during installation. An airplane manufacturer would not report the application of asbestos-containing caulk. Included in this category are secondary processors who merely adjust an asbestos mixture prior to or during assembly or installation. While the Agency believes there may be risks from asbestos exposures in these categories, it expects to complete necessary analyses with estimates and extrapolations of data reported by the persons who make the asbestos-containing products that are processed by the excluded industries. For example, processors infrequently

"true" pre-formed brake linings during assembly with brake foundations to get a better fit. In this case, reports from manufacturers of the pre-formed brake linings will sufficiently quantify production of the friction material product subcategories. Exposure scenarios for the excluded industries can be quantified by relating expected exposure levels with the quantities of products that are made. Therefore, reports from these excluded industries are not essential.

This rule also exempts persons who repair articles, repackage asbestos mixtures without modification, or who engage in construction work. The Agency proposes to exempt these persons from reporting primarily because so many persons are in these categories, the workforce is constantly changing, and they are generally composed of many small businesses, such as brake repair shops and construction companies. Also, as is the case with other excluded industries, exposure scenarios for the construction and brake repair industries can be developed by relating expect exposure levels with production levels reported by product manufacturers.

Section 8(a) of TSCA does not apply to distributors of chemical substances or mixtures. Therefore, persons who are solely distributors, and do not manufacture, process, or import, are not covered by this rule.

Reporting is not required by persons who are "end users" of bulk asbestos or asbestos products and do not further distribute such items in commerce. The most common example of this is in the manufacture of chlorine, where some persons use asbestos as a diaphragm to separate chlorine and caustic soda. While much bulk asbestos is consumed annually by this industry and much waste generated, asbestos fiber is not present in the resultant products which are distributed in commerce and these activities are therefore not "processing" of asbestos.

VI. Reporting Procedures

Companies must report the activities of each plant site on an individual reporting form with one exception. That exception is that respondents have the option to report all of their company imports or exports on a single form. The form instructions explain further how this is to be done.

Miners, millers, primary processors, and importers of bulk asbestos must submit all appropriate portions of the Primary Form within 90 days after the effective date of the final rule. If the respondent's activities include "secondary processing" or importing of asbestos mixtures or articles containing asbestos components, all such activities, including those at other plant sites, must be reported at the same time the person reports as a miner, primary processor, or importer of bulk asbestos.

EPA will require reporting in a different way for persons who are solely secondary processors or importers of asbestos mixtures. Apparently there are many thousands of persons who are secondary processors or importers of asbestos-containing mixtures. EPA has devised a scheme to reduce the reporting burden for these companies. Persons who are solely secondary processors or importers of asbestos mixtures or articles containing asbestos components will report to EPA in phases. First, they will submit the Secondary Form within 60 days after the effective date of the rule. The Secondary Form reports will be used by EPA to improve the Agency's knowledge of the products being made with asbestos, the number of companies making the products that contain asbestos and the amounts of asbestos mixtures they use, and the kinds and amounts of mixtures and products being imported.

Further reporting of the information on the primary form by some respondents will be necessary to develop more complete profiles and projections for regulatory analyses. The Secondary Form will not ask all respondents (estimated to comprise 5,750 reports) for the detailed information the EPA would like to consider in the risk and economic analyses. Instead, the Agency plans to have a representative sample of Secondary Form respondents report more detailed information. The Agency wants to account for 100 percent of asbestos usage, but for purposes of this analysis, and to reduce the reporting burden, the Agency has determined extrapolations can be made from less than 100 percent. EPA believes that a sampling technique can provide information that would adequately describe secondary asbestos processing and products. Sampling to decrease the number of processors required to submit additional detailed information will reduce the overall burden of additional reporting substantially. In unit VIII, "Reporting Burden", EPA estimates that Phase 2 reporting will be required from approximately 1500 of the Phase 1 respondents. The objective is to sample only the number necessary to meet the goal of attaining a reliable sample.

EPA plans to use a stratified random sampling method as the basis for the sample survey. That is, the respondents to the Secondary Form will be divided into non-overlapping and reasonably homogeneous strata and then sampled by stratum. The strata will be defined by all or an appropriate subset of the following variables: reported asbestos-starting material, reported asbestos end product, and the volume of asbestos-starting material annually consumed. Additionally, the population may be further stratified according to size (the amount of asbestos mixture processed or imported) and geographic location, which will ensure that any sample fully represents the whole population. The type of asbestos-starting material and the asbestos end product would permit EPA to analyze a representative portion of each product category application. Consideration of the amount of the asbestos-starting material that is consumed will better ensure representation of both larger and smaller processors of asbestos materials.

The Agency can make the final decision on which variable(s) to use in stratifying and how large the sample will be only after examining the composition of the Secondary Form respondents, since the actual numbers of respondents and the products they report in the first phase will not be known until the first phase reports are submitted. The Agency will use standard statistical techniques in conducting the sample survey.[1] The Agency will stratify and sample respondents with the goal of minimizing the reporting burden as much as is practical. To extrapolate an estimate about a population from a sample survey requires obtaining reports from enough respondents to represent the whole population. To make an estimate about a stratum composed of a few respondents may require sampling a larger percentage than would be necessary to make an estimate of the same reliability about a stratum composed of a greater number of respondents. EPA will use one or a combination of the variables listed in the preceding paragraph to stratify respondents for the sample survey. The Agency will select the stratifying variable(s) which will result in the fewest number of respondents while still ensuring a reliable statistical sample.

The Secondary Form respondents selected for more detailed reporting will be notified by certified letter. These persons will have 90 days to complete relevant portions of the Primary Form.

Some persons subject to reporting under this rule may be exempted from reporting certain information already

[1] Kish, Leslie. Survey Sampling. New York: John Wiley. 1965.

reported to EPA or CPSC. A company which has adequately reported data to EPA will not be required to report the same information again, and must write "EPA" in place of the data on the form. Persons who have already reported production or importation quantities to CPSC must still identify themselves and the names of their products to EPA according to the requirements of this rule. However, data already reported must be referenced by writing "CPSC" in place of the data, unless the respondent specifically requested CPSC not to release the data to EPA.

The Agency intends to send reporting forms directly to as many potential respondents as possible. To identify persons currently subject to this rule, a master list of persons who produce or make asbestos products has been assembled from a number of different lists supplied by industry associations, Government agencies, and industry information that is publicly available. In addition, efforts will be made to publicize these reporting requirements widely, so that persons as yet unknown to EPA will comply with these reporting requirements.

VII. Confidentiality

The Agency has developed specific instructions for asserting and certifying claims of confidentiality for any information submitted in response to this rule. These instructions are incorporated in the reporting forms and may be found in §§ 763.76 and 763.77 of the rule. Any claims of confidentiality must be made at the time of submission as provided in 40 CFR Part 2 as amended September 8, 1978 (43 FR 39997), and March 23, 1979 (44 FR 17673), and in the manner specified in the reporting forms of this proposed rule. To ensure proper handling, confidential material must be submitted to: U.S. Environmental Protection Agency, Post Office Box 2070, Rockville, MD 20852.

This rule employs a simple certification method to assert a claim of confidentiality. To assert a claim of confidentiality, the respondent must mark the applicable line on the form that contains confidential information. The respondent must certify that the company has taken measures to protect the confidentiality of the information, that the information is not publicly available, and that disclosure of the information would cause the company substantial competitive harm. All of these conditions must exist for any information to be confidential. Determinations on confidentiality will be made by EPA in accordance with 40 CFR Part 2.

The Agency intends to aggregate information about production, consumption, employment, and environmental release that is reported for this rule. The Agency will primarily use aggregate data for analyses necessary to support the TSCA section 6 regulatory investigation. These data aggregates and analyses will be part of the section 6 asbestos rulemaking record that is available to the public. To protect confidential information in the aggregate data sets, in most cases no data from individual reports will be released, even if they are nonconfidential. Releasing discrete data could jeopardize the aggregate data sets, because through subtraction of nonconfidential data from the aggregate it could be possible to ascertain specific confidential data.

As previously stated, EPA intends to share all reported data with other Federal agencies, including confidential data in individual reports. However, EPA will require that personnel from other agencies obtain a TSCA security clearance before access to confidential data is granted (See "TSCA Confidential Business Information Security Manual," *Chapter 6—Security Requirements for Other Federal Agencies*). Similarly, EPA will require that an agency adopt certain security procedures before confidential information can be stored at that agency.

VIII. Changes From the Proposal

The final rule modifies several requirements of the proposed rule to ease the reporting burden, to respond to specific problems that were raised by commenters on the proposal, or to obtain the most useful information. Further discussion of comments on the proposal and our responses can be found in a document entitled "Public Comments on the Proposed TSCA Section 8(a) Asbestos Reporting Rule," which is part of the public record for this rule.

The final rule does not include the proposed requirement to keep lists of customers and to submit the lists at the Agency's request. Commenters convinced the Agency that that the information would be very sensitive and the requirement could be very burdensome. Also, the purpose of this rule is to characterize the industries making essentially finished goods, while most customers are "users" or distributors and, therefore, outside the scope of the present rule.

Several changes to the reporting forms should be noted. The Agency has substantially reduced the amount of requested information by requiring respondents to report production of subcategories of end products for only 3 years. The proposal would have required production data for 5 years about specific end products, including trade names, and data for 10 years about the importation or production of bulk asbestos. Data reported according to consistent subcategories of products will provide sufficient detail for our analyses. The Agency believes that data for 3 years will sufficiently describe the current situation, as well as provide reliable averages for analyses. An additional change is that data on bulk asbestos fiber is required only for each type of mineral. Again, EPA is not requiring data about specific grades of chrysotile fiber because the Agency's analyses do not need that level of detail.

The requirement to summarize workplace monitoring data is revised to increase the utility of the reported data and facilitate reporting. Respondents will still report only monitoring data that already exist in their files; however, they will summarize that data according to the types of end products they are reporting. The reports will be more useful to the Agency and OSHA by directly relating workplace concentration levels to the number of workers making the end product that is reported. The final rule does not require respondents to estimate the number of hours that workers are annually exposed to the measured concentration levels. While information on the duration of exposures would be useful, commenters asserted that extensive and burdensome searches through payroll records would be necessary to locate the data. Since the reports will consist of summaries of 8-hour time-weighted averages, Agency analysts will use assumptions and other available information to calculate duration of exposures.

The requirement to report air pollution control equipment has been modified at the request of EPA's Office of Air Quality Planning and Standards (OAQPS). The final rule requires respondents to answer several technical questions about each piece of equipment, replacing the proposal's requirement to provide the brand name and model number of each piece. The revised questions will obtain all the information necessary to estimate emissions and costs and will eliminate the need for submitters to calculate the quantities of asbestos that are released. OAQPS believes that the revisions will reduce reporting requirements while improving the usefulness of the data.

EPA is including two provisions to address special problems of importers. First, importers were concerned they would be unable to identify all imported

goods that contain asbestos and, therefore, would not fully comply with the rule. This rule provides that importers need report information relating only to the types of products listed on the form, which should cover most such imports. Second, importers asserted that the requirement to provide "reasonably ascertainable" information on the Primary Form during the second phase of reporting could require them to seek information from foreign manufacturers, possibly at considerable cost. The final rule requires importers to provide information "in their possession" during both phases of reporting.

IX. Reporting Burden

In order to assess the clarity of the form and to ensure that data are reported in the most effective manner, the Agency conducted a pre-test of the form through the Institute for Survey Research, Temple University. The respondents were members of the Asbestos Information Association. This pre-test was quite valuable to EPA in improving the clarity and coherence of the form. In addition, the respondents estimated the cost of completing each section of the form. The final report by the Institute for Survey Research, "Design and Testing of Asbestos Use Reporting Form", is part of the public record for this rule. The pre-test was not a statistically-based sample and only eight companies were asked to participate. Therefore, the resultant cost estimates could not be used directly to compute the reporting impacts of this rule. However, the pre-test results helped EPA arrive at an impact estimate. A detailed description of the reporting burden estimates can be found in a report by Arthur Young & Company, "Economic Impact Analysis for the TSCA Section 8(a) Rule, Reporting Commercial and Industrial Uses of Asbestos", which is part of the public record for this rule. The results of the pre-test and the reporting burden calculations are summarized in the "Reports Impact Analysis", an internal EPA report that is available in the OPTS Reading Room. The documents cited above may be acquired by writing or calling the Industry Assistance Office at the address and telephone number given at the beginning of this notice.

In unit XII of this preamble—"Regulatory Flexibility Act"—EPA calculates that 40 percent of the secondary processors will be small businesses and will be exempt from this rule. Therefore, in this section costs are calculated for 5,385 secondary processors, while we estimate there may be a total of 8,974 secondary processors if small businesses are counted. (These estimates are derived from a formula used in 1976 by the Asbestos Information Association, which is described in the "Reports Impact Analysis.") In addition, EPA calculations exclude primary processors who are known to be small businesses. However, the Agency does not calculate the cost reduction from excluding small importers because the composition of that segment is not well-defined, although it does expect that this group will contain some small businesses. Therefore, the actual reporting costs may be less than our present calculations.

As already discussed, two reporting forms will be used for this rule. The Primary Form will be completed by miners, millers, primary processors of asbestos, and importers of bulk asbestos in a first reporting phase. EPA estimates that for this group of respondents, a total of 487 reports would be received by the Agency. Completion of these reports would require a total of 7,500 hours, and cost approximately $230,000.

Secondary processors and importers of asbestos mixtures or articles containing asbestos components will be required initially to complete the Secondary Form. The Agency estimates that it will take four hours to complete each form, at a cost of $120 per form. The Agency anticipates receiving 5,750 such reports. Therefore, the Secondary Form reporting would require a total of 23,000 hours, and would cost approximately $690,000.

The Agency expects that approximately 1,500 of those persons who initially complete the Secondary Form will be selected, in a sample survey, to complete the Primary Form. The sample survey will require a total of 36,000 hours, and would cost $1,100,000.

Based on these cost estimates, and assuming a small business exclusion, EPA estimates the total cost of reporting for this rule would be $2 million, requiring 66,500 reporting hours.

Using available data, an economic impact analysis of the proposed rule was performed for primary processors. Using the measure of the one-time cost as a percent of annual gross profits, the estimated impact was found to be minimal (around 0.1 percent) for even the smallest primary processors (the ones most likely to be impacted).

Such an economic impact analysis was not possible for the other industry segments affected by this rule due to unavailability of data. EPA did compare the average value of shipments for four-digit SIC codes for primary processors and other SIC codes likely to contain asbestos secondary processors. This comparison suggested no significant difference between primary processors and other industry segments in the size ranges of 10–19 employees and 20–49 employees. These size categories are the smallest establishments likely to be impacted by this proposed rule and the ones most likely to experience adverse effects. On this basis, EPA feels that the potential impacts on secondary processors and others in the asbestos industry will be of a similar small magnitude as the impacts estimated for the primary processors. Refer to two documents in the public record: (1) "TSCA Section 8(a) Rule Reporting Commercial and Industrial Uses of Asbestos: Economic Impact on Secondary Processors," memorandum from Regulatory Impacts Branch, December, 1980, and (2) "Economic Impact Analysis for the TSCA Section 8(a) Rule Reporting Commercial and Industrial Uses of Asbestos," Arthur Young & Company, Washington, DC, October, 1980.

X. Sunset Provision

The general requirements of this rule will expire 5 years after the effective date of the rule. The selection and notification of sample survey participants for Phase 2 reporting (see unit VII of this preamble and § 763.71(c) of the rule) will take place within three years after the effective date of the rule. If EPA determines that any requirements of this rule should be continued, a notice to that effect will be published for comment.

XI. Public Record

EPA has established a public record for this rulemaking as defined in section 19(a)(3) of TSCA (docket number OPTS-84004). The public record, along with a complete index, is available for inspection in the OPTS reading room, E-107, from 8:00 a.m. to 4:00 p.m. Monday through Friday, except legal holidays, (401 M St., S.W., Washington, D.C. 20460). This record contains the basic information that the Agency considered in developing this rule. The Agency will supplement the record with additional information as it is received. This record includes the following:

1. The proposed rule, published in the **Federal Register** of January 28, 1981, (46 FR 8200).

2. Comments received in response to the proposed rule, including any comments received from the Office of Management and Budget during Paperwork Reduction Act of 1980 review.

3. "Commercial and Industrial Use of Asbestos Fibers; Advance Notice of Proposed Rulemaking," published in the **Federal Register** of October 17, 1979 (44 FR 60061).

4. "Commercial and Industrial Use of Asbestos Fibers. Extension of Comment Period and Announcement of Additional Control Option," published in the **Federal Register** of December 17, 1979 (45 FR 18374).

5. Comments received in response to the Advance Notice of Proposed Rulemaking and the Notice of Proposed Rulemaking.

6. Reports Impact Analysis of this rulemaking.

7. "Statistics for Companies with 10 or Fewer Employees" memorandum, from Chemical Information Reporting Branch, October 30, 1980.

8. "Design and Testing of Asbestos Use Reporting Form," Institute for Survey Research, Temple University. Philadelphia, PA., June 30, 1980.

9. "Economic Impact Analysis for the TSCA Section 8(a) Rule, Reporting Commercial and Industrial Uses of Asbestos", Arthur Young & Company, Washington, D.C., October, 1980.

10. The Technical Information Summary for this rulemaking.

11. The Information Use Plan for this rulemaking.

12. Records of all communications between EPA personnel and persons outside the Agency pertaining to the development of this rule. (This does not include any inter- or intra-agency memoranda unless specifically noted in the index of the rulemaking record.)

13. "Public Comments on the Proposed TSCA Section 8(a) Asbestos Reporting Rule."

XII. Regulatory Assessment Requirements

This rule fully complies with the following regulatory assessment requirements.

A. Executive Order 12291

Under Executive Order 12291, EPA must judge whether a regulation is "Major" and, therefore, subject to the requirement of a Regulatory Impact Analysis. EPA has determined that this regulation is not Major because it does not have an effect of $100 million or more on the economy and it will not affect competition, employment, or production costs. EPA estimates the total cost of this one-time reporting requirement is $2.0 million. This regulation was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any comments from OMB to EPA and EPA response to those comments will be available for public inspection in the record for this rulemaking.

B. Regulatory Flexibilty Act

The Agency has included several provisions in this rule to minimize both its overall impact on businesses and the reporting requirements for individual companies. First, EPA is exempting the smallest companies that could be subject to the rule—those companies with 10 or fewer employees. This small business exemption will eliminate reporting from over 40 percent of the companies and the Agency estimates that it will reduce the overall potential cost of the rule by $1.1 million. EPA is also excluding from any reporting two large segments of processors that are composed of a high percentage of small businesses—construction and brake repair companies. Including those segments would raise the overall cost of this rule by several million dollars.

Second, every effort has been made to minimize the amount of data to be reported. Based on a pretest by industry and public comments, the Agency has designed the forms to require only common business information essential to the Agency's investigation. The economic impact analysis estimates that the median cost to any single respondent submitting the long form will be $1,100, which is about 0.1 percent of the smallest company's profits. The reporting costs for many small businesses will probably be less than the median cost because they will generally report about fewer products and employees.

Third, EPA will apply a sampling approach to over 90 percent of the respondents. Only a representative sample of secondary processors, which is the largest industrial segment subject to the rule and is composed of a large percentage of small businesses, will be selected for full reporting. In phase one, secondary processors will submit a short, one-page form that EPA estimates will take at most four hours ($120) to complete. The Agency will select the minimum necessary number of companies from phase one respondents to submit the long form in phase two. Utilizing this sample survey means that only ⅓ of all respondents to the rule will have to complete the long form.

The Agency is including these provisions as a special consideration to small businesses. The Agency's economic impact analysis shows that this rule will have a negligible impact on any business. Therefore, in accordance with the Regulatory Flexibility Act (Pub. L. 96-354), EPA has determined that this rule will not have a significant economic impact on a substantial number of small entities. As required, EPA has consulted with the Office of Advocacy, Small Business Administration.

C. Paperwork Reduction Act of 1980

As just described, the Agency has made every effort to minimize the amount of required information and the burden on respondents to the rule. The reporting forms were pretested, the proposed requirements have been reduced in a number of ways, and 90 percent of the respondents will be sampled. Furthermore, this rule exempts entire classes of businesses in cases where the Agency believes necessary analyses can be conducted with information that is otherwise available.

The Agency has prepared extensive plans to utilize fully all information that is collected through this rule. The Agency's "Information Use Plan", which is part of the public record, describes the specific uses that are planned for the required data elements. In addition, the Agency coordinated these information requirements with other Federal agencies to maximize the usefulness of reported data. The information to be reported does not duplicate efforts by other Federal agencies and the data will be useful to several regulatory agencies. An automated information system will ensure the most effective use of submitted data. Fully operational Agency procedures will protect confidential business information contained in the reports.

Information collection requirements contained in this regulation (§ 763.71) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number 2000-0478.

List of Subjects in 40 CFR Part 763

Environmental protection, Hazardous materials, Recordkeeping and reporting requirements, Asbestos.

Dated: July 23, 1982.

Anne M. Gorsuch,

Administrator.

PART 763—ASBESTOS

Therefore, 40 CFR Part 763 is amended by adding a new Subpart D to read as follows:

Subpart A-C—[Reserved]

Subpart D—Reporting Commercial and Industrial Uses of Asbestos

Sec.

763.60 Scope and compliance.

763.63 Definitions.

Authority: Sec. 8(a) Toxic Substances Control Act (TSCA), Pub. L. 94-469, 90 Stat. 2029, (15 U.S.C. 2607(c)).

Subpart D—Reporting Commercial and Industrial Uses of Asbestos

§ 763.60 Scope and compliance.

(a) This rule requires reporting by persons who manufacture, import, or process asbestos. Different reporting requirements are imposed depending on the person's activity. Manufacturers, importers and processors of commercial and industrial asbestos fiber must report quantity, use, and exposure information. Importers of mixtures and articles containing asbestos and processors of asbestos mixtures will report to EPA in two phases. They initially must report limited information about processing or importation. Some must subsequently report additional information if they are selected as respondents in a sample survey.

(b) Subsection 15(3) of TSCA makes it unlawful for any person to fail or refuse to submit information required under this rule. Section 16 provides that a violation of section 15 renders a person liable to the United States for a civil penalty and possible criminal prosecution. Under section 17, the district courts of the United States have jurisdiction to restrain any violation of section 15.

§ 763.63 Definitions.

The definitions in section 3 of TSCA and the following definitions apply for this rule:

(a) "Asbestos" means the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite.

(b) "Asbestos mixture" means a mixture which contains bulk asbestos or another asbestos mixture as an intentional component. An asbestos mixture may be either amorphous or a sheet, cloth fabric, or other structure. This term does not include mixtures which contain asbestos as a contaminant or impurity.

(c) The term "bulk asbestos" means any quantity of asbestos fiber of any type or grade, or combination of types or grades, that is mined or milled with the purpose of obtaining asbestos. This term does not include asbestos that is produced or processed as a contaminant or an impurity.

(d) "EPA" means the United States Environmental Protection Agency.

(e) "Importer" means anyone who imports any chemical substance, including a chemical substance as part of a mixture or article, into the customs territory of the U.S. and includes the person liable for the payment of any duties on the merchandise, or an authorized agent on his behalf. Importer also includes, as appropriate:

(1) The consignee.

(2) The importer of record.

(3) The actual owner if an actual owner's declaration and superseding bond has been filed in accordance with 19 CFR 141.20.

(4) The transferee, if the right to draw merchandise in a bonded warehouse has been transferred in accordance with Subpart C of 19 CFR Part 144. For the purpose of this definition, the customs territory of the U.S. consists of the 50 states, Puerto Rico, and the District of Columbia.

(f) "Known to or reasonably ascertainable by" means all information in a person's possession or control, plus all information that a reasonable person might be expected to possess, control, or know, or could obtain without unreasonable burden or cost.

(g) "Manufacture for commercial purposes" means to import, produce, or manufacture with the purpose of obtaining an immediate or eventual commercial advantage for the manufacturer and includes, among other things, such "manufacture" of any amount of a chemical substance or mixture:

(1) For commercial distribution, including for test marketing, and

(2) For use by the manufacturer, including use for product research and development, or as an intermediate. "Manufacture for commercial purposes" also applies to substances that are produced coincidentally during the manufacture, processing, use, or disposal of another substance or mixture, including both byproducts and coproducts that are separated from that other substance or mixture, and impurities that remain in that substance or mixture. Byproducts and impurities may not in themselves have commercial value. They are nonetheless produced for the purpose of obtaining a commercial advantage since they are part of the manufacture of a chemical product for a commercial purpose.

(h) "Miner of asbestos" is a person who produces asbestos by mining or extracting asbestos-containing ore so that it may be further milled to produce bulk asbestos for distribution in commerce, and includes persons who conduct milling operations to produce bulk asbestos by processing asbestos-containing ore. Milling involves the separation of the fibers from the ore, grading and sorting the fibers, or fiberizing crude asbestos ore. To mine or mill is to "manufacture" for commercial purposes under TSCA.

(i) "Person" means any natural person, firm, company, corporation, joint venture, partnership, sole proprietorship, association, or any other business entity, any State or political subdivision thereof, any municipality, any interstate body, and any department, agency, or instrumentality of the Federal Government.

(j) "Primary processor of asbestos" is a person who processes for commercial purposes bulk asbestos.

(k) "Process for commercial purposes" means the preparation of a chemical substance or mixture, after its manufacture, for distribution in commerce with the purpose of obtaining an immediate or eventual commercial advantage for the processor. Processing of any amount of a chemical substance or mixture is included. If a chemical or mixture containing impurities is processed for commercial purposes, then those impurities are also processed for commercial purposes.

(l) "Secondary processor of asbestos" is a person who processes for commercial purposes an asbestos mixture.

(m) "Site" means a contiguous property unit. Property divided only by a public right-of-way shall be considered one site. There may be more than one manufacturing plant on a single site.

(n) "Small manufacturer, processor, or importer" means a manufacturer or processor who employed no more than 10 full-time employees at any one time in 1981.

§ 763.65 Who must report.

(a) Persons who were miners or primary processors of asbestos, or importers of bulk asbestos in 1981 must complete and submit a separate EPA Form 7710-36, Reporting Commercial and Industrial Use of Asbestos (see § 763.76), for each site and for each company activity not elsewhere reported, according to the schedule in § 763.71. When two or more persons meet the definition of "importer" for the same shipment, the principal in the transaction, not his agent or agents, shall report.

(b) Persons who were secondary processors of asbestos in 1981 must complete and submit Parts I and II of EPA Form 7710-37, Reporting Secondary

Processing and Importation of Asbestos Mixtures (see § 763.77), for each site or activity, according to the schedule in § 763.71.

(c) Persons who were importers in 1981 of asbestos mixtures or articles containing asbestos components must complete and submit Parts I and III of EPA Form 7710-37, Reporting Secondary Processing and Importation of Asbestos Mixtures, according to the schedule in § 763.71. When two or more persons meet the definition of "importer" for the same shipment, the principal in the transaction, not his agent(s), shall report.

(d) Secondary processors of asbestos and importers of asbestos mixtures or articles containing asbestos components must complete and submit a single EPA Form 7710-36, Reporting Commercial and Industrial Use of Asbestos, according to the schedule in § 763.71(c), if selected for further reporting as described in § 763.71(c).

(e) Particular information required on EPA Form 7710-36 which has been previously submitted to the Consumer Product Safety Commission (CPSC) in accordance with a general order dated Dec. 22, 1980 (45 FR 84384), may be referenced in the appropriate place on the form and need not be submitted unless the respondent has informed the CPSC of his objection to any sharing of the data with EPA. Information for 1981 which was not required by CPSC must be reported on the EPA forms.

(f) The following persons are not subject to §§ 763.65 and 763.71.

(1) Secondary processors of asbestos, to the extent that they process an asbestos mixture to repair articles, to construct buildings or other such construction activities, or to apply, assemble, install, erect, consume, or repackage the mixture without modification.

(2) Persons who are small manufacturers, processors, or importers, as defined in § 763.63(n).

§ 763.71 Schedule for reporting.

(a) All miners, primary processors, and importers of bulk asbestos subject to reporting under § 763.65(a) shall submit required data on EPA Form 7710-36 within 90 days after the effective date of this rule.

(b) All secondary processors and importers subject to reporting under § 763.65 (b) and (c) shall submit required data on EPA Form 7710-37 within 60 days after the effective date of this rule.

(c) All persons subject to paragraph (b) of this section who are selected for additional reporting shall submit required data on EPA Form 7710-36 within 90 days after receipt of EPA notification to do so. Selections will be made in the following manner. The respondents will be selected using a stratified random sampling technique. First, qualified statisticians will review reports on EPA Form 7710-37 and determine the optimal method to stratify respondents according to the composition of the respondent population. The strata will be defined by all or an appropriate subset of the following variables: the end product; the asbestos mixture that is the starting material in the end product; the volume of the asbestos mixture annually consumed or imported. Respondents will be stratified into as few groups as reasonably possible. The size of the sample will be determined after all respondents have been stratified. EPA intends to require further reporting from the minimum number of respondents possible while still meeting the EPA needs for statistically sound data. If there are insufficient numbers of respondents in a group to perform a statistically sound sample survey, then all of the respondents in that group may be required to complete EPA Form 7710-36. A standard random selection technique will be employed to select persons who will be required to complete and submit EPA Form 7710-36. Notification shall be sent by certified letter, signed by the Office Director, Office of Toxic Substances, and will have attached copies of this rule and EPA Form 7710-36. Letters of notification will be sent by EPA no later than three years after the effective date of this rule.

(d) EPA Form 7710-36 and EPA Form 7710-37 can be obtained by writing or telephoning:

Industry Assistance Office, Office of Pesticides and Toxic Substances (TS-799), Washington, D.C. 20460, Toll free: (800-424-9065), In Washington call: (554-1404).

(e) Completed forms must be mailed to: U.S. Environmental Protection Agency, Post Office Box 2070, Rockville, MD. 20852.

§ 763.74 Confidential business information.

(a) Any person submitting a document under this rule may assert a business confidentiality claim covering all or part of the submitted material unless otherwise instructed on the reporting form. EPA will disclose information covered by a claim only as provided in procedures set forth in 40 CFR Part 2.

(b) Certification for a claim made on any item reported under § 763.65 must be made by signing the certification statement as specified in the forms.

(c) If no certified claim accompanies a document at the time it is submitted to EPA, the document may be placed in an open file available to the public without further notice to the respondent.

§ 763.76 Reporting commercial and industrial uses of asbestos.

The following EPA Form 7710-36, Reporting Commercial and Industrial Uses of Asbestos, will be completed and submitted to EPA as required in §§ 763.65 and 763.71. Information must be reported on this form to the extent that it is known to or reasonably ascertainable by the respondent, except for importers. Importers must report information on this form to the extent that it is in the possession of the respondent.

(a) EPA Form 7710-36 (5-80). [insert form]

(b) [Reserved]

BILLING CODE 6560-50-M

O.M.B. No. 2070-0038. Approval Expires June 30, 1985

EPA United States Environmental Protection Agency

REPORTING COMMERCIAL AND INDUSTRIAL USES OF ASBESTOS

When completed send this form to:

U.S. Environmental Protection Agency
P.O. Box 2070
Rockville, MD 20852

Please read the accompanying instruction booklet before completing this form. Note that a separate form must be submitted for each place of business except that total amounts of imports of bulk asbestos may be reported in a consolidated corporate report. The instructions provide further directions.

When completed, enclose it in the preaddressed envelope provided. Should you have any questions, please contact the Industry Assistance Office (IAO) at (202) 424-9065 or in Washington, D.C. at (202) 554-1404.

All persons who are solely *secondary processors*, importers of asbestos mixtures, or importers of articles containing asbestos mixtures will report on the form designated as EPA Form 7710-37, titled "Secondary Processing and Importation of Asbestos Mixtures." These persons will report on that form, EPA Form 7710-36, only upon receipt of notice to that effect from EPA (see 40 CFR 762.180 (a)(2)).

A(1). RESPONDENT IDENTIFICATION

1. Company name | Plant site name

Address (number and street)

City | County | State | ZIP code

2. Principal technical contact (person to whom | Name | Job title | Office telephone (area code, number, extension)

3. If applicable: Record any identification number

4. If applicable: Record the name and address of the parent corporation which is responsible for the management of the reporting site

Name of parent corporation

Address (number and street)

City | County | State | ZIP code

5. Record the total number of years during which the manufacture and/or processing of asbestos has been conducted at the reporting site | (Number of years)

A(2). RESPONDENT ACTIVITY

6. Identify your activity from the definitions in the instruction booklet and mark (X) the box next to the category below that best describes your activities. Mark (X) next to all activities that you are reporting on the form. You must at least complete the questions in section A(1) and the part you mark next to the box you mark, and you must complete other sections if you conduct that activity. For example, if at the same plant site you process bulk asbestos to produce an asbestos product and you also process an asbestos mixture that is made at another site, then you are a *primary processor* and a *secondary processor* and must complete both parts.

All persons who are mining, millers, primary processors, or importers of bulk asbestos must report their asbestos activities as of calendar year 1979.

Mark (X) your activities that is reported on this form.

- ☐ Mining and milling — Complete parts A, B(1), C, D, E, I, J, K (B(3), if applicable)
- ☐ Primary processor — Complete parts A, C, D, E, I, J, K (B(3), if applicable)
- ☐ Importer of bulk asbestos — Complete parts A, B(1), B(2), B(3), if applicable
- ☐ Secondary processor — Complete parts A, D, E, I, J, K
- ☐ Importer of asbestos mixtures — Complete parts A and K
- ☐ Importer of articles containing asbestos (*impermissible*) — Complete parts A and K

A(3). CERTIFICATION FOR CLAIMS OF CONFIDENTIALITY

You may claim as confidential any information you submit on this form. The instructions provide specific instructions on how to assert claims of confidentiality. For information which you submit on attachments to the form, provide a copy which clearly indicates the information you wish to be considered confidential.

Space is provided at the end of each box to claim information as that box contains.

If any information on this form you claim as confidential, you must certify that the information is confidential. The signature box at the end of this section provides for the certification of the following statements. All four statements must be true about any information you claim confidential.

1. My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures.
2. The information is not, and has not been, reasonably obtainable by other persons (other than governmental bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent.
3. The information is not publicly available.
4. Disclosure of the information claimed as confidential would cause substantial harm to my company's competitive position.

7. **Signature of authorized official** | Date

B(1). PRODUCTION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS PRODUCED

Enter, to the nearest ton, the amount of bulk asbestos produced or purchased for 1979 through 1981.

Year	Reported in short tons: Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	Mark (X) if zero
1979							
1980							
1981							

B(2). IMPORTATION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS IMPORTED

Enter, to the nearest ton, the amount of bulk asbestos imported for 1979 through 1981.

Mark (X) one: ☐ This is a consolidated corporate report. ☐ This is a plant site report.

Year	Reported in short tons: Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	Mark (X) if zero
1979							
1980							
1981							

B(3). EXPORTATION OF BULK ASBESTOS

QUANTITY OF BULK ASBESTOS EXPORTED

Enter, to the nearest ton, the amount of bulk asbestos exported for 1979 through 1981.

Mark (X) one: ☐ This is a consolidated corporate report. ☐ This is a plant site report.

Year	Reported in short tons: Chrysotile	Crocidolite	Amosite	Anthophyllite asbestos	Tremolite asbestos	Actinolite asbestos	Mark (X) if zero
1979							
1980							
1981							

EPA Form 7710-36 (6-12-82)

FMSI 02698

Page 2

C. PRIMARY PROCESSOR PRODUCTION

Enter the following information for each type of end product that you shipped from your plant site. Classify your end products according to the list below.

End product shipped (Enter one end product per line) (1) Code number	Generic name	Type of asbestos fiber (Use one line per mineral type) (2)	Year	Quantity of asbestos consumed (Short tons) (3)	Product shipment: Total annual production (4) Quantity	Unit of measure	Value shipped (Thousands of dollars) (5) Domestic	Exports	Confidential Yes (6)
		[ ] Chrysotile [ ] Anthophyllite	1979						
		[ ] Crocidolite [ ] Tremolite	1980						
		[ ] Amosite [ ] Actinolite	1981						
		[ ] Chrysotile [ ] Anthophyllite	1979						
		[ ] Crocidolite [ ] Tremolite	1980						
	[ ] Continued	[ ] Amosite [ ] Actinolite	1981						
		[ ] Chrysotile [ ] Anthophyllite	1979						
		[ ] Crocidolite [ ] Tremolite	1980						
	[ ] Continued	[ ] Amosite [ ] Actinolite	1981						

(6) Estimate the percentage of the total value shipped from the plant site reported here as primary processor production in 1981 ____ %

Asbestos Mixture Product Subcategories

Papers, felts, or related products — Unit of measure
- 01. Commercial paper — Short tons
- 02. Rollboard — Short tons
- 03. Millboard — Short tons
- 04. Pipeline wrap — Short tons
- 05. Beater-add gasketing paper — Short tons
- 06. High-grade electrical paper — Short tons
- 07. Unsaturated roofing felt — Short tons
- 08. Saturated roofing felt — Short tons
- 09. Flooring felt — Short tons
- 10. Corrugated paper — Short tons
- 11. Specialty paper (Specify generic name) — Short tons

Floor coverings
- 12. Vinyl-asbestos floor tile — Square yards
- 13. Asbestos felt backed vinyl flooring — Square yards

Asbestos-cement products — Unit of measure
- 14. A/C pipe and fittings — Short tons
- 15. A/C sheet, flat — 100 sq. ft.
- 16. A/C sheet, corrugated — 100 sq. ft.
- 17. A/C shingle — Squares

Friction materials
- 18. Drum brake lining (light-medium vehicle) — Pieces
- 19. Disc brake pads (light-medium vehicle) — Pieces
- 20. Disc brake pads (heavy vehicle) — Pieces
- 21. Brake block (heavy equipment) — Pieces
- 22. Clutch facings (all) — Pieces
- 23. Automatic transmission friction components — Pieces
- 24. Friction materials (industrial and commercial) — Pieces

Textiles — Unit of measure
- 25. Cloth — Pounds
- 26. Thread, yarn, lap, roving, cord, rope, or wick — Pounds

Other products
- 27. Sheet gasketing (other than beater add) — Sq. yards
- 28. Packing — Pounds
- 29. Paints and surface coatings — Gallons
- 30. Adhesives and sealants — Gallons
- 31. Asbestos-reinforced plastics — Pounds
- 32. Insulation materials not elsewhere classified (Specify generic name) — (Specify)
- 33. Mixed or repackaged asbestos fiber — Short tons
- 34. Other (Specify generic name) — (Specify)

D. SECONDARY PROCESSOR PRODUCTION

Enter the following information for each type of end product that you shipped from your plant site. Classify end products and asbestos mixtures consumed according to the lists on this form.

End product shipped (Enter one end product per line) (1) Code number	Generic name	Total annual production (2) Year	Quantity	Unit of measure	Asbestos mixture consumed and form (Enter one mixture per line) (3) Code number	Generic name Form	Function of asbestos in product (4)	Year	Annual consumption of asbestos mixtures (5) Quantity	Unit of measure	Delivered cost (Thousands of dollars)	Confidential Yes (6)
		1979						1979				
		1980						1980				
		1981						1981				
		1979						1979				
		1980						1980				
	[ ] Continued	1981						1981				
		1979						1979				
		1980						1980				
	[ ] Continued	1981						1981				

(6) Estimate the percentage of the total value shipped from the plant site reported here as secondary processor production in 1981 ____ %

Typical forms for products made from asbestos mixtures

Automotive and friction products
- 101. Drum brake lining (light-medium vehicles)
- 102. Disc brake pads (light-medium vehicle)
- 103. Disc brake pads (heavy vehicle)
- 104. Brake block (heavy equipment)
- 105. Clutch facings (all)
- 106. Automatic transmission friction components
- 107. Friction material (industrial and commercial)
- 108. Custom automotive body filler
- 109. Transmissions
- 110. Mufflers
- 111. [illegible]
- 112. Radiator sealant
- 113. Other (Specify generic name)

Appliances
- 114. Appliances, industrial and consumer (Specify generic name)

Construction products
- 115. Boiler and furnace mastic
- 116. Doors and building panels
- 117. A/C sheet
- 118. [illegible]
- 119. [illegible]
- 120. [illegible]
- 121. [illegible]
- 122. [illegible]
- 123. Wallboard
- 124. [illegible]
- 125. Other (Specify generic name)

Clothing
- 126. Aprons
- 127. Boots
- 128. [illegible]
- 129. [illegible]
- 130. [illegible]
- 131. [illegible]
- 132. [illegible]

Floor coverings
- 133. Vinyl-asbestos floor tile
- 134. Asbestos felt-backed sheet vinyl flooring

Electrical products and components
- 135. [illegible]
- 136. [illegible]
- 137. Electrical resistance supports
- 138. [illegible]
- 139. [illegible]
- 140. Electrical wire insulation
- 141. [illegible]
- 142. Other (Specify generic name)

Fire and heat shielding equipment and components
- 143. [illegible]
- 144. Fire doors
- 145. [illegible]
- 146. Heat shields
- 147. [illegible]
- 148. [illegible]
- 149. [illegible]
- 150. Stove lining, wood and coal
- 151. Stove pads
- 152. [illegible]
- 153. [illegible]
- 154. Other (Specify generic name)

Gaskets
- 155. Sheet gasketing (other than beater add)
- 156. [illegible]
- 157. [illegible]
- 158. Metal reinforced gaskets
- 159. Automotive gaskets
- 160. Other (Specify generic name)

Marine equipment and supplies
- 161. Caulks, marine
- 162. [illegible]
- 163. [illegible]
- 164. Other (Specify generic name)

Paints, coatings, sealants, and compounds
- 165. Asphaltic compounds
- 166. [illegible]
- 167. Buffing and polishing compounds
- 168. Caulking and patching compounds
- 169. Drilling fluid
- 170. [illegible]
- 171. [illegible]
- 172. [illegible]
- 173. Plaster and stucco
- 174. Pump, valve, flange, and tube sealing components
- 175. Roof coatings
- 176. Textured paints
- 177. [illegible]
- 178. Other (Specify generic name)

Textile and felt products
- 179. [illegible]
- 180. [illegible]
- 181. [illegible]
- 182. Wicks
- 183. [illegible]
- 184. Belting
- 185. Blankets
- 186. [illegible]
- 187. [illegible]
- 188. [illegible]
- 189. [illegible]
- 190. [illegible]

Textile and felt products — Con.
- 191. [illegible] pads and insulation
- 192. [illegible]
- 193. [illegible]
- 194. [illegible]
- 195. [illegible]
- 196. Tape
- 197. [illegible]
- 198. Umbrellas
- 199. Other (Specify generic name)

Miscellaneous products
- 200. [illegible]
- 201. Acoustical products
- 202. [illegible]
- 203. Asbestos-reinforced plastic products
- 204. Ash trays
- 205. [illegible]
- 206. Blackboards
- 207. Candlesticks
- 208. [illegible]
- 209. [illegible]
- 210. [illegible]
- 211. [illegible]
- 212. [illegible]
- 213. [illegible]
- 214. [illegible]
- 215. [illegible]
- 216. [illegible]
- 217. [illegible]
- 218. [illegible]
- 219. [illegible]
- 220. Other (Specify generic name)

E. IMPORTATION OF ASBESTOS MIXTURES

Enter the following information for each type of asbestos mixture that you imported in 1981. Classify your imports according to the lists in [illegible] C or D.

Asbestos mixtures (Enter one mixture per line) (1) Code number	Generic name	Asbestos fiber content of mixture (2) Type of asbestos	Quantity	Year	Total annual imports (3) Quantity	Unit of measure	Value of imports (Thousands of dollars)	Confidential Yes (4)
		[ ] Chrysotile [ ] Anthophyllite [ ] [illegible]		1979				
		[ ] Crocidolite [ ] Tremolite		1980				
		[ ] Amosite [ ] Actinolite	[ ] [illegible]	1981				
		[ ] Chrysotile [ ] Anthophyllite [ ] [illegible]		1979				
		[ ] Crocidolite [ ] Tremolite		1980				
	[ ] Continued	[ ] Amosite [ ] Actinolite	[ ] [illegible]	1981				
		[ ] Chrysotile [ ] Anthophyllite [ ] [illegible]		1979				
		[ ] Crocidolite [ ] Tremolite		1980				
	[ ] Continued	[ ] Amosite [ ] Actinolite	[ ] [illegible]	1981				

EPA Form 7710-36 (7-82)

FMSI 02699

U.S. ENVIRONMENTAL PROTECTION AGENCY

REPORT OF COMMERCIAL AND INDUSTRIAL USES OF ASBESTOS
Continued

COMPANY NAME AND ADDRESS
(Same as reported in item 1 on page 1)

F. IMPORTATION OF ARTICLE(S) CONTAINING ASBESTOS COMPONENTS

Enter the following information for each article that you imported in 1981. Classify your imports according to the lists in section C or D.

Article name (Enter one article per line) (1) Code number	Generic name	Total annual imports (2) Year	Quantity	Unit of measure	Value (U.S. dollars)	Asbestos component(s) (Use one line per component) (3)	Confidential Mark (X)
		1979					
		1980					
		1981					
		1979					
		1980					
		1981					
		1979					
		1980					
		1981					

G. EMPLOYEES

Record the number of employees at the reporting site in each of the categories below. Count each employee in one category only.

	Number of employees	Confidential Mark (X)
(1) TOTAL number of employees at plant site (Sum of 2, 3, 4, and 5)		
(2) Number of production employees		
(3) Number of employees in shipping, receiving, and moving		
(4) Number of maintenance employees		
(5) Number of other employees		

H. SUMMARY OF CURRENT WORKER EXPOSURES

This section requires you to report, by category of production workers, the arithmetic mean of the 8 hour time weighted average (TWA) and ceiling concentration exposure levels for all employees at the reporting site. Report for all employees for whom you have determined a TWA and according to each production line making the reported products. The instructions include a worksheet for making necessary calculations (see Appendix B).

End product (Enter name) (1) Code number	Generic name	Respondent activity (2)	Production work category (3)	Number of employees (4)	8-hr. time weighted average: Arithmetic mean of detectable measurements (5)	Standard deviation (6)	Total number of measurements (filters) (7)	Number of non-detectable measurements (8)	Ceiling concentration level (Range) (9)	Confidential Mark (X)
	Not applicable	Miners and millers	**Mine operations** (includes all employees working in mine, including transporters)							
			Mill operations (includes all employees working in production areas of mill)							
		Primary processors	**Fiber introduction** operations (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							
		Primary processors	**Fiber introduction operations** (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							
		Primary processors	**Fiber introduction operations** (includes blending, mixing, bag opening, fluffing, willowing, etc.)							
		Primary processors and secondary processors	**Wet mechanical operations** (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Dry mechanical operations (includes machining, sawing, drilling, cutting, grinding, pulverizing, weaving, etc.)							
			Other production employees							

(10) Sampling and analysis methods

[ ] Mark this box if you use the NIOSH method to sample airborne concentrations of asbestos fibers in the workplace and analyze measurements (DHEW (NIOSH) Pub. No. 79-127).

If you utilize other sampling and analysis methods, enter the appropriate codes for those methods listed in the instruction booklet under part I.

(11) Enter the lowest detectable level of the measurements that your company expects to attain by the sampling and analysis methods. (Measurements below this level should be considered as "nondetectable" for the purposes of this rule.)

I. MEASURING ASBESTOS EMISSIONS OR FIBER RELEASE

NPDES Permit number _____ Date

[ ] Yes, enclosed is a separate report for this section concerning measuring asbestos emissions. [ ] No separate report.

EPA Form 7710-35 (6-12-82)

J. WASTE AND DISPOSAL

Enter the following information for each end product you report in section B(1), C, and D. If you cannot provide information by end product, provide information according to the form of waste (column 2).

End product (1) Code number	End product (1) Generic name	Form of waste (sludge, slurry, brake or scrap, baghouse fines, or specify other) (2)	Total annual quantity of asbestos waste (Short tons) (3)	Average percent asbestos (4)	Disposal site (5) Type of land disposal facility (See instructions) (a)	Disposal site (5) Location (b)	Disposal site (5) Ownership (c)	Disposal site (5) Permitted hazardous waste facility? (d)	Method of disposal (6)	Confidential?
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On site ☐ Off site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On site ☐ Off site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		
	☐ End product report ☐ Form of waste report			%	☐ Surface impoundment ☐ Waste pile ☐ Land treatment ☐ Land fill ☐ Seepage facility ☐ Injection well	☐ On site ☐ Off site	☐ Company ☐ Private ☐ Municipal	☐ Yes ☐ No		

(7) You may describe in a separate enclosure any steps you take to ensure that waste does not release airborne fibers.

☐ Yes, enclosed is a separate description of waste disposal practices. ☐ No separate report

K. POLLUTION CONTROL EQUIPMENT

On separate lines enter information about each piece of air pollution control equipment used to control asbestos emissions at your plant site. ☐ Confidential

Item number (1)	Type of equipment (See code) (2)	Gas stream volume and temperature (3)	Equipment size (Baghouse and ESP only) (4)	Estimated collection efficiency (Percent) (5)	Normal operating schedule (Hrs./year) (6)	Quantity collected annually (Pounds) (7)	Source of emissions (8)	Stack or chimney? (9)	Special problems? (10)
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	
		Volume Temperature	Square feet ☐ NA	% ☐ Designed ☐ Actual	Hrs./yr.	Pounds ☐ Designed ☐ Actual		☐ Yes ☐ No	

(11) Estimate the percent of plant exhaust air that is treated by the equipment listed above ______ %

Continuation of item answers

EPA Form 7710-36 [illegible]

BILLING CODE 6560-50-C

Instruction Booklet—Reporting Commercial and Industrial Uses of Asbestos, EPA Form 7710-36

I. Introduction and Reporting Schedule

A. Introduction

These instructions are for companies that mine and/or mill commercial asbestos, or process or import an asbestos product, and are required to submit EPA Form 7710-36 under 40 CFR Part 763, Subpart D. Data must be reported to the extent that they are known to or reasonably ascertainable by the submitter based on factual information that either is available in company files, or can be obtained without unreasonable burden or cost. Importers must report information in their possession, but need not contact foreign manufacturers for missing information.

1. *Fill in all blocks.* Fill in all blocks in the portions of the form that must be completed. Write "N/A" (not applicable) in large, bold letters on the first line of any section that does not have to be completed.

If data for a portion of the form that must be completed are not available, consult part II of these instructions, "Missing Information."

EPA will check all forms for completeness. Incomplete forms may be returned for completion. If only a few items are incomplete, EPA may call the designated Technical Contact to determine the correct answer rather than return the form.

2. *Relevant Definitions.* Reporting requirements are determined by the company's asbestos activity in 1981 (i.e., miner and/or miller, importer of bulk asbestos, primary processor of asbestos, secondary processor of asbestos, importer of asbestos mixtures, or importer of articles containing asbestos component(s). Definitions for reporting activities and other terms used in this form may be found in Appendix A.

3. *Appropriate Number of Forms.* A separate form must be submitted for each *site.* For example, a miner and/or miller at one site who is a primary processor at a different site must submit a form for each site.

All asbestos activities conducted at each site must be reported. A primary processor who also imports asbestos at a single site must report both the primary processing and importing activities on the same form.

4. *Additional Space.* If additional space is needed to report all required information, responses can be entered on a reproduction of the pertinent portion of the form and the continuation should be noted on that part of the form.

B. Portions of the Form To Complete and Reporting Schedule

1. *Miners and/or Millers.* Miners and/or millers must complete parts A, B(1), C, H, I, J, and K of the form. Complete B(3) if applicable. Report for each plant site on a separate EPA Form 7710-36 and submit within 90 days of the effective date of the rule.

2. *Primary Processors of Asbestos.* Primary processors must complete parts A, C, G, H, I, J, and K of the form. Complete B(3) if applicable. If a facility processes an asbestos mixture that is made at a different plant site, part D must also be completed. Report for each plant site on a separate EPA Form 7710-36 within 90 days of the effective date of the rule.

3. *Secondary Processors of Asbestos.* Persons who are *solely* secondary processors must submit EPA Form 7710-37, "Reporting Secondary Processing and Importation of Asbestos Mixtures" within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A, D, G, H, I, J, and K of the form for submission within 90 days of receiving notification.

4. *Importers of Bulk Asbestos.* Importers of Bulk Asbestos must complete *at least* parts A and B(2) of the form. Complete B(3) if applicable. Report all activities that involve asbestos on EPA Form 7710-36 within 90 days of the effective date of the rule.

5. *Importers of Asbestos Mixtures.* Importers of Asbestos Mixtures must submit EPA Form 7710-37 "Reporting Secondary Processing and Importation of Asbestos Mixtures," within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A and E of the form and submit within 90 days of receiving notification.

6. *Importers of Article(s) Containing Asbestos Component(s).* Importers of Article[s] Containing Asbestos Component[s] must submit EPA Form 7710-37 "Reporting Secondary Processing and Importation of Asbestos Mixtures," within 60 days of the effective date of the rule. If the company is selected and notified by certified letter to complete EPA Form 7710-36, complete parts A and F of the form and submit within 90 days of receiving notification.

II. Missing Information

It is important to fill in all blocks in the portions of the form that must be completed. If the required information either cannot or need not be provided, enter one of the notations described below. Write "N/A" (not applicable) in large bold letters on the first line of any section that is not required. Only use "0" to report a quantity of zero.

Enter the following notations if the requested data are unknown, previously submitted to EPA or CPSC, or submitted as a corporate report.

UNK—The requested data are *unknown* and not reasonably ascertainable; or, not in the possession of the importer. This may be the case for information from a specific year or about a specific type of data that is required.

CPSC—The requested data have been previously reported to the Consumer Product Safety Commission (CPSC) in response to the December 22, 1980 Federal Register notice "Consumer Product Containing Asbestos; General Order for Submission of Information," (45 FR 84384). Use this notation only for the specific items of information that were submitted to CPSC. *Do not* use this notation in lieu of reporting of CPSC was instructed not to share the submitted information with EPA at the time of response to the CPSC General Order.

CORP—The requested data have been submitted for sections B(2) and B(3) (importation and exportation), in a corporate consolidated report. Inform the plant site management that a corporate consolidated report has been submitted and instruct those plant site(s) to enter "CORP" in sections B(2) and B(3).

EPA—The requested data have already been submitted to EPA in the format of the reporting form as proposed or promulgated.

III. Specific Instructions for Form 7710-36

A(1). Respondent Identification

1. Enter company name, and name and complete address of plant site.

2. Enter name, job title, and telephone number of the principal technical contact person to be contacted by the EPA for answers to any questions about the submitted form.

3. Miners must record the mine identification number assigned by the Mining Safety and Health Administration.

4. Enter name and address of the parent corporation responsible for fiscal management of the reporting site.

5. Enter the total number of years asbestos has been manufactured or processed at this plant site, through the date of this report.

A(2). Respondent Activity

Review the definitions in Appendix A of these instructions to ascertain required reporting activity(ies). Check the appropriate activity(ies) that is performed at this site. Complete the portions of the form listed next to the activities checked.

For example, a primary processor who makes an asbestos mixture and then processes the asbestos mixture at the same site to make a different end product should report the production of the final end product in part C. Only complete part D of the form if the facility processes an asbestos mixture that is made elsewhere.

A(3). Confidential Business Information

Any reported information may be claimed as confidential business information. When submitting the form, mark (X) in the space provided on each line of the form that contains confidential information. Additionally, an authorized company official must sign the "Certification for Claims of Confidentiality" to certify that the four statements on the form apply to all information claimed as confidential.

B(1). Production of Bulk Asbestos

Enter, in short tons, the amount of bulk asbestos produced (mined or milled), in 1979, 1980, and 1981.

B(2). Importation of Bulk Asbestos

Enter, in short tons, the amount of bulk asbestos imported in 1979, 1980, and 1981. Report all imports entering the U.S. Customs territory that are declared under Tariff Schedule of the United States, Annotated (TSUSA) Number 518.1110–518.1160. Mark in the appropriate box the source of this information.

B(3). Exportation of Bulk Asbestos

Enter, in short tons, the amount of bulk asbestos exported in 1979, 1980, and 1981. Mark in the appropriate box the source of this information.

C. Primary Processor Production

Individually list the product subcategories made and shipped from the plant site in 1979, 1980, and 1981 that incorporate bulk asbestos as a starting material. Read instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) *End Product Shipped.* Locate on the list of "Asbestos Mixture Product Subcategories" the most specific name that describes the end product(s) shipped from the plant site. Enter the corresponding code number for each product subcategory being reported. If the listed product subcategory name is not adequately descriptive, write in a generic name next to the code number. If the product is not listed, write in the appropriate code for "other" and a generic name for the product. *Do not* enter a trade name as a generic name. Do not report anything more specific than a product subcategory.

(2) *Type of Asbestos Fiber Consumed.* Mark (X) the fiber type(s) that is, or has been, used in production of reported product subcategory. Use one block for each fiber type incorporated into each product subcategory. If more than one type of fiber(s) is used for a product, mark (X) the additional fiber in the next block and mark (X) the continuation box in column 1. *Do not* list the same product subcategory twice.

(3) *Quantity of Asbestos Consumed.* For each type of asbestos, enter, in short tons, quantity consumed in 1979, 1980, and 1981.

(4) *Total Annual Production.* Record the total annual production quantity of each reported product subcategory in 1979, 1930, and 1981. Production quantities will be expressed in the units of measure indicated on the form next to the listed end product, as used by the Bureau of Census. If census units are not applicable, report production in short tons.

(5) *Value Shipped.* Record the total annual value shipped (in thousands of U.S. dollars) for each reported product subcategory in 1979, 1980, and 1981. These figures must be separated to show domestic sales and export sales (i.e., sales distributed outside the U.S. Customs Territory). If the breakdown is unknown, report total sales as "Domestic" sales, and write "UNK" under "Exports."

The valuation of products shipped should be based on the net selling value, f.o.b. plant, after discounts and allowances, and exclusive of freight charges and excise taxes.

When reporting products transferred to other establishments within the same company, the shipping plant should assign the full economic value to the transferred products. Include *all* direct costs of production and a reasonable proportion of all other costs and profits.

(6) *Percentage of Total Value Shipped.* Estimate the percentage of end products shipped that reflect primary processing of asbestos in 1981.

D. Secondary Processor Production

Individually list the product subcategories made and shipped from the plant site in 1979, 1980, and 1981 that incorporated an asbestos mixture as a starting material. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) *End Product Shipped.* Locate on the list of "Typical Terms for Products Made from Asbestos Mixtures" the most specific subcategory name that describes the product. Enter the corresponding code number for each product subcategory being reported. If the product name listed is not adequately descriptive, write in a generic name next to the code number. If the product is not listed, enter the appropriate code for "other" and write in a generic name for the product. *Do not* enter a trade name as a generic name. Do not report anything more specific than a product subcategory.

(2) *Total Annual Production (Quantity by Census Unit of Measure).* Record the total production of the reported product subcategory at this plant site in 1979, 1980, and 1981. Production quantities should be reported in the unit of measure used by the U.S. Department of Commerce, Bureau of the Census, for the 1977 Census of Manufacturers.

(3) *Asbestos Mixture Consumed and Form.* Locate and enter from the list of "Asbestos Mixture Product Subcategories" the code number of the asbestos mixture processed to produce the product subcategory. If the material processed is not listed, then enter the appropriate code for "other" and write the generic name of the asbestos material you process. Indicate the form in which the asbestos starting material is purchased (e.g., roll of paper, 3'x5' sheets, reams of 8"x11" sheets).

Use one block for each asbestos mixture incorporated into the product subcategory. If there is more than one asbestos mixture per product subcategory, list the mixture(s) in the next block(s) and mark (X) the continuation box in column 1. *Do not* list the same product subcategory twice.

(4) *Function of the Asbestos in Product.* Briefly describe the function of the asbestos in the product. Examples of possible asbestos functions are: rot resistance, heat insulation, fire shield, electrical insulation, dimensional stability, filler, or tensile strength.

(5) *Annual Consumption of Asbestos Mixtures.* Record the total annual quantity and specify Census Bureau unit of measure and the total annual cost (in thousands of U.S. dollars) of the asbestos mixtures consumed in 1979, 1980, and 1981.

The value of the materials consumed should be based on the delivered cost, i.e., the *amount paid or payable* after discounts and including freight and other direct charges incurred in acquiring the materials. Charges include purchases, transfers from other establishments of the company, and withdrawals from inventories.

Materials transferred to the plant site from other plants within the company should be assigned their full economic value, as assigned by the shipping plant, plus cost of freight and handling charges.

(6) *Percentage of Total Value Shipped.* Estimate the percentage of end products shipped that reflect secondary processing of asbestos in 1981.

E. Importation of Asbestos Mixtures

Individually list the asbestos mixtures imported to the plant site in 1979, 1980, and 1981. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) *Asbestos Mixture.* Locate on the list of "Asbestos Mixture Product Subcategories" the most specific name that describes the mixture imported. Enter the corresponding code number of each product subcategory being reported. If the name of the product subcategory is not adequately descriptive, write in a generic name next to the code number. If the imported product subcategory is not listed, enter the appropriate code for "other" and write in a generic name for the product. List each product subcategory on a separate line. *Do not* enter a trade name as a generic name. Do not report anything more specific than a product subcategory.

(2) *Asbestos Fiber Content.* Mark (X) the type of asbestos fiber in the imported asbestos mixture and enter the total quantity of asbestos per unit of the mixture (the unit used to report quantity imported). The quantity of asbestos should be reported in *pounds.* If these data are not available, mark (X) "UNK."

Use one block for each type of fiber that is in the imported mixture. If the mixture contains more than one type of asbestos fiber, list the additional fiber(s) in the next block(s) and note the continuation in column 1. *Do not* list the same mixture twice.

(3) *Total Annual Imports.* Record the total annual quantity of each listed product subcategory imported in 1979, 1980, and 1981.

Quantities will be expressed in the units of measure used by the U.S. Bureau of the Census or according to the unit used to report importation to the U.S. Customs Service.

Record the total annual value imported (U.S. dollars) for each product in 1979, 1980, and 1981. This figure can be drawn from the U.S. Customs Service entry forms as the "Entered Value in U.S. Dollars" or "Value."

F. Importation of Article(s) Containing Asbestos Component(s)

Individually list the articles containing an asbestos component that were imported in 1979, 1980, and 1981. Only report information relating to imported product subcategories listed under "Typical Terms for Products Made from Asbestos Mixtures." If the component was reported on EPA Form 7710-37 during Phase 1, use the same code(s) and generic name(s) as reported on that form. Read the instructions for items 1, 2, and 3 before completing this section to ensure sufficient space for entries.

(1) *Article Name.* Locate on the list of "Typical Terms for Products Made from Asbestos Mixtures" the most specific name that describes your product. If the listed product name does not adequately describe your product, write in a generic name next to the code number. List each product on a separate line. If the imported product is not listed, enter the appropriate code number for "other" and write in a generic name. *Do not* enter a trade name as a generic name.

(2) *Total Annual Imports.* Record the total number of units that were imported in 1979,

1980, and 1981. Quantities will be reported in the unit of measure that was used to declare the merchandise upon entry into the U.S. or by the U.S. Bureau of Census for the 1977 Census of Manufacturers. Enter the value of the imported merchandise in U.S. dollars.

(3) *Asbestos Component(s).* List all asbestos components contained in the imported article by name, or by describing the mixture making up the component. Use one block for each asbestos component. If the imported article contains more than one asbestos component, list the component in the next block and note the continuation in column 1. *Do not* list the same article twice.

C. Employees

Classify all employees as of January 1981 into the following categories, in items 2–5. COUNT EACH EMPLOYEE IN ONLY ONE CATEGORY. In this section, report numbers of individuals without regard to the number of hours worked.

(1) *Total Number of Employees.* Enter the total number of employees (the sum of items 2, 3, 4, and 5) who worked at the reporting plant site as of January 1981. If you employed seasonal workers in 1981, add the number of those workers to the total.

(2) *Number of Production Employees.* Enter the number of production employees who work in areas where ASBESTOS IS MANUFACTURED OR PROCESSED. Do not include plant site production employees who work in separate areas where no asbestos fiber or asbestos product is processed. This number must equal the total number of employees reported in Section II, for all product lines.

(3) *Number of Shipping, Receiving, and Moving Employees.* Enter the number of employees involved with shipping, receiving, or moving asbestos fiber or asbestos-containing products.

(4) *Number of Maintenance Employees.* Enter the number of maintenance employees who perform maintenance tasks in work areas where asbestos fiber, asbestos products, or asbestos waste are processed, stored, or moved.

(5) *Number of Other Employees.* Enter the number of other employees at the location that are not counted in items 2–4.

H. Summary of Current Worker Exposures

Report, by category of production workers, the arithmetic mean of the 8-hour time weighted average (TWA) exposure level for all employees at the reporting site for whom a TWA has been determined. Appendix B describes how to perform the calculations and includes a worksheet.

Summarize Only *Existing Monitoring Data;* Additional Monitoring Is Not Required

Submit a single TWA value (arithmetic mean) to summarize existing monitoring data that will describe current exposure levels that employees in general production categories may experience while working on *each production line. Summarize and report* monitoring data separately for workers on the production line for each end product subcategory that has been reported as either "Primary Processor Production" (part C) or "Secondary Processor Production" (part D). Miners and millers, must provide a single, composite TWA value for the mine and for the mill.

For each *End Product Subcategory,* enter the number of workers who perform the production operations listed below. Only count employees who were counted as production workers in item 2 of part C of the form. Each employee is to be counted *only one time,* in the operation and product line that is the employee's primary assignment.

After grouping the 8-hour TWAs, follow the detailed instructions in Appendix B to find the mean, standard deviation, number of *measurements, and ceiling ranges for each* group.

Note.—The sum of all production employees listed in column 4 *must equal* the number of production employees entered in item 2 of part C.

(1) *End Product.* Primary or secondary processors must enter the same code number(s) and generic name(s) they listed in part C or D of the form. Miners and/or millers *do not* complete this block.

(2) *Respondent Activity.* Determine applicable category of activity.

(3) *Production Work Category.* Divide production employees into the Production Work Categories for each end product subcategory. Count mine workers under *Mine Operations* and mill workers under *Mill Operations.*

Fiber Introduction Operations are operations where bulk (raw) asbestos is mixed with or added to a combination of other materials. Primary processors will list employees who handle bulk or raw asbestos fiber. Secondary processors do not use bulk asbestos as a starting material.

Wet Mechanical Operations are operations where asbestos fiber, asbestos mixtures, or *asbestos-containing materials are fabricated,* modified, or altered, and the asbestos component is wetted to reduce the release of airborne asbestos fiber. This category includes such activities as: machining, sawing, drilling, cutting, grinding, or pulverizing. Count employees whose principal job is to control or work with the tool or machinery performing the operation. Count all asbestos textile workers involved with wet operations here, whether involved in spinning, twisting, or weaving operations.

Dry Mechanical Operations are operations where asbestos fiber, asbestos mixtures, or *asbestos-containing materials are fabricated,* modified, or altered without any intentional wetting of the material during the operation. This category includes activities such as: machining, sawing, drilling, cutting, grinding, or pulverizing. Count employees whose principal job is to control or work with the tool or machinery performing the operation. Count all asbestos textile workers in dry operations here, whether involved in spinning, twisting, or weaving operations.

Other Production Employees are production employees involved in operations that require handling of asbestos fiber or materials in a *manner* not covered in the operations described in the other categories. This category will include workers who perform an operation that involves handling an asbestos mixture, such as bonding asbestos-felt-backing for vinyl sheet flooring or injecting asbestos-reinforced plastic into a mold. Other production workers who are to be counted in this category include (but are not limited to) employees who take products off a production line, assemble parts, oversee drying or roding operations, or inspect, weigh, or package asbestos mixtures or asbestos-containing products.

(4) *Number of Employees.* Enter next to the appropriate job classification the number of employees working in jobs meeting the general descriptions provided. Count employees *only one time* and only under the job description that best describes their primary duties.

(5) *Arithmetic Mean of Detectable Measurements.* Locate monitoring data for any employees counted in column 4 and group those monitoring data according to the employee's general job classification. Determine the arithmetic mean of those detectable TWA values for each work category. Calculate the mean only to the nearest one-hundredth (e.g., 0.05). The arithmetic mean is the sum of the time-weighted averages divided by the number of time weighted averages. (See Appendix B for instructions and worksheet for determining the arithmetic mean.) If there are no measurements for workers in a particular work category, write in "No measurements."

(6) *Standard Deviation.* Enter the standard deviation for each arithmetic mean you calculate in column 5. (See Appendix B for instructions and a worksheet for determining the standard deviation.)

(7) *Number of Measurements Used.* For each work category, enter the total number of actual observations (filters) used to determine all of the employee's TWAs in the category. This includes the number of all non-detectable measurements.

(8) *Number of Non-detectable Measurements.* For each work category, enter the number of measurements that are below detectable levels. (Non-detectable levels may not be greater than 0.1 f/cc.)

(9) *Ceiling Concentration Level.* For each work category, enter the range of ceiling concentration levels that were determined. Provide the low and high measurements.

(10) *Sampling and Analyses Methods.* If the company used the NIOSH methodology to sample airborne concentrations of asbestos fibers in the workplace and to analyze measurements [DHEW (NIOSH) Pub. No. 79-127], check the corresponding box on the form.

If the company used other sampling and analysis methods, enter the appropriate codes for those methods listed in the next section of these instructions.

The reporting company has the option to describe in an attachment any additional information that will better describe work practices or other measures instituted to reduce the levels of airborne fibers or to protect workers from exposure to asbestos. Attach any additional materials to this form at the time of submission.

(11) Enter the lowest detectable level of the measurements the company expects to attain by the sampling and analysis methods. (Measurements below this level are considered "non-detectable" for the purposes of this rule.)

I. Measuring Asbestos Emissions or Fiber Release

If the plant site has applied for a water effluent discharge permit (NPDES Permit), provide the application date and the permit number that was assigned.

Summarize and report separately the results of any measurements or monitoring performed to determine the amount of asbestos fiber released during the production, use, or disposal of asbestos fiber or asbestos products (other than already reported in part II of this form). If attaching any such information for this section, check the "yes" box on the form. If not, mark "X" for no separate report. Where possible, the measurements should characterize the type of fibers found and the fiber size distribution, and should be reported according to the following ranges.

Reports submitted in response to this section should describe the methodologies used to perform any tests, to gather samples, and to analyze samples. If this information has been previously submitted to a Federal agency, do not report again here, but indicate the date and to whom the information was sent, and briefly describe the nature of the information. Where possible, summarize the sampling and analytical methodologies according to the terms and abbreviations listed below.

Fiber size distributions	Analysis methodologies
< 1.0	Optical Microscopy.
1.0-2.0	PC Phase Contrast Microscopy.
2.0-3.0	PM Polarizing Microscopy
3.0-4.0	DS Dispersion Staining.
4.0-5.0	OM Other optical microscopy techniques (specify).
5.0-10.0	Electron Microscopy.
10.0-20.0	TEM Transmission Electron Microscopy.
20.0-30.0	
30.0	SEM Scanning Electron Microscopy.
Sampling Methodologies	ED Electron Diffraction.
	XRS X-Ray Spectrometry.
K Konimeter	EM Unknown electron microscopy results.
TP Thermal Precipitator	
I Impinges	C Any other analysis methodology (Provide specifications)
MI Midget Impinger	
MF Membrane Filter	
EPA Provisional Methodology	

EPA—"Electron Microscope Measurement of Airborne Asbestos Concentrations—A Provisional Methodology," EPA-600/2-77-178 (Revised June 1978).

J. Waste and Disposal

Entries in this section will account for the waste that is not recycled and results from the production of each type of end product subcategory reported. The percentage of the total waste from the plant site that results from the production of each end product subcategory may be estimated. Report separately the data for each end product subcategory. If unable to determine quantities by product subcategory, report total quantities disposed of for each form of waste.

(1) *Product Line.* Enter the product subcategory code (and generic name if used) for each end product subcategory reported in parts B(1), C, or D. Miners and/or millers need only list the type of bulk asbestos fiber reported in section B(1). If unable to determine wastes by end product subcategory, report according to the form of the waste (see below); enter the name(s) and code(s) from parts C and D. Mark (X) in the appropriate box to indicate that the data is either an "End Product Report" or a "Form of Waste Report."

(2) *Form of Waste.* Record the form of the waste either after completion of the processing or as it leaves the plant site. Report asbestos collected in control devices, such as baghouse fines, on a separate line.

(3) *Total Annual Quantity of Asbestos Waste (Short Tons).* Enter the total quantity, in short tons, of asbestos waste generated by each reported end product production line in 1981. Asbestos waste is a waste product that contains asbestos as some of the total waste. Do not report quantities of waste recycled or reprocessed.

(4) *Average Percent Asbestos.* Record in short tons the average percentage of asbestos (by weight) in the total quantity of asbestos waste. This figure may be an estimate based on previous experience or an extrapolation of production mass balance figures.

(5) *Disposal Site(s).* (a) Type of Land Disposal Facility. Mark (X) one of the following types of land disposal facilities or the asbestos waste of each end product subcategory or form of waste. See the February 5, 1981, **Federal Register** (46 FR 11126) for comprehensive definitions of the types of facilities.

- *Surface Impoundments*—facilities at which liquid wastes or other liquids are impounded or held. Surface impoundments are generally earthen structures designed to hold an accumulation of liquids or wastes containing free liquid.
- *Waste Piles*—facilities at which wastes, usually in a solid state, are placed on the land for storage or treatment.
- *Land Treatment*—facilities at which wastes (usually in a solid, semi-solid, semi-liquid, or liquid state) are spread on the ground for the purpose of treatment.
- *Landfills*—facilities at which wastes, usually in solid or semi-solid state, are placed into or on the land for permanent disposal.
- *Seepage Facilities*—facilities at which wastes (usually in a liquid, semi-liquid, or semi-solid state) are placed into or on the land for storage, treatment, or disposal. A seepage facility is designed with the objective of discharging liquids into the land. There are four types of seepage facilities:

  —seepage lagoons
  —drying beds
  —seepage pits
  —seepage beds

- *Injection Wells*—facilities at which wastes in a fluid (usually liquid) state are injected into the land under a pressure head greater than the pressure head of the ground water into or above which they are injected for disposal.

(c) *Location of Disposal Facility*—For each end product subcategory (or form of waste), mark (X) whether wastes are disposed of at this plant site (on-site) or at another site (off-site).

(d) *Ownership of Disposal Facility*—For each end product subcategory (or form of waste), mark (X) whether this disposal facility is owned by reporting company (company), another private company (private), or a municipality (municipal).

(d) *Permitted Hazardous Waste Facility*—For each product subcategory (or form of waste), mark (X) whether the disposal facility is permitted under any applicable State or Federal hazardous waste regulation.

(6) *Method of Disposal*. Briefly describe the specific methods used to dispose of asbestos waste. For example, if you wet the waste and place it in a bag or drum prior to disposal, this should be noted here.

(7) *Additional Information*. Submit any additional information to describe any steps taken during waste disposal to reduce the release of airborne asbestos fibers. If enclosing a separate description, check "Yes" on the form; if not, check "No" in the space provided.

K. Pollution Control Equipment

In this section, provide information on all air pollution equipment located at the plant site to control or remove airborne asbestos fiber. List each piece of equipment on a separate line on the form, even though identical units may be used at the plant site. Use the codes listed in this section for each piece of equipment being reported. For additional space, fill in and attach additional copies of the form. If the company has submitted portions of the required data to EPA previously and the data are still current, enter "EPA" in place of those data, and reference the address where the data were sent and the date they were sent.

(1) *Item Number*. Number each piece of equipment consecutively (one through the total number of pieces of equipment).

(2) *Type of Equipment*. For each item number, enter the appropriate abbreviation from the following list.

- Baghouse (BH)
  - —Reverse Air (RA)
  - —Pulse-jet (PJ)
  - Shake (S)
  - —Other (O)

For example, if the baghouse used is equipped for both reverse air and shake cleaning, enter (BH) (RA) (S).

- Scrubber (S)
  - —Venturi (V)
  - —Impingement (I)
  - —Spray (SP)
  - —Other (O)

If the scrubber used is the venturi type also enter the pressure drop in inches of water in parentheses. For example, if the range of pressure drop is 40–60 inches, enter (S) (V) (40–60).

- Electrostatic Precipitator (ESP)
- Cyclone (C)
- Multiple Cyclone (MC)
- Other (O)

(3) *Gas Stream Volume and Temperature*. For each piece of equipment, enter the gas volume (in cubic feet per minute) and the operating temperature (in °F). Use actual data for these entries, although estimates or design figures may be used if actual data are unavailable. Ranges (ex. 8,000–10,000 ACFM at (40–180 °F)) are also acceptable.

(4) *Equipment Size*. If electrostatic precipitators and/or baghouses are used, enter the total square feet of collecting surface area. For all other types of equipment mark (X) "N/A."

(5) *Estimated Collection Efficiency*. Enter the collection efficiency (percent), or an estimate of this value, of each piece of equipment. Mark (X) either design (D) or actual (A) to indicate basis for response.

(6) *Normal Operating Schedule*. Enter the normal number of operating hours either actual or estimated for each piece of equipment during 1981.

(7) *Quantity Collected Annually*. Estimate the quantity of material in pounds that is (or would be, given the design of the equipment) collected annually by each piece of equipment in 1981. Include all asbestos and non-asbestos materials in the total. If possible, estimate the percent (by weight) of asbestos in the collected material. Mark (X) either design (D) or actual (A) to indicate basis for response.

(8) *Source of Emissions*. Enter a brief description of the source of the emissions such as work area exhaust ventilation, curing oven, mixer, various, etc.

(9) *Stack or Chimney*. Indicate whether the air pollution control device discharges to a stack or chimney; check "Yes" or "No."

(10) *Special Problems*. If there is a special problem with particulate collection or with any specific piece of equipment, discuss it in the space provided. Be sure to indicate which piece of equipment is being discussed.

(11) Estimate the percent of plant exhaust air that is treated by the plant site's pollution control equipment.

Appendix A

Definition of Terms

Several terms are used throughout the reporting form and the instruction booklet to describe the different kinds of asbestos products and how to report them.

Asbestos Mixture: a mixture which contains bulk asbestos or another asbestos mixture as an intentional component. An asbestos mixture can be utilized as a finished product or incorporated into other products.

Bulk Asbestos (or raw asbestos): any quantity of asbestos fiber of any type or grade, or combination of types or grades, that is mined or milled with the express purpose to obtain asbestos. The term does not include asbestos that is produced or processed as a contaminant or an impurity. Asbestos is a group of naturally occurring, inorganic, highly fibrous, silicate minerals, which easily separate into long, thin, flexible fibers when crushed or processed. Included in the definition are the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite.

End Product: the product subcategory that is either shipped from the reported site or imported into the United States.

Generic Name: a term that describes the coded product subcategory better than the subcategory name given on the form. If the product subcategory name on the form is adequate, use it.

Importer: a person or facility importing asbestos, in bulk form or as part of a mixture or article, into the customs territory of the United States. This definition includes:

- The person liable for the payment of any duties on the merchandise, or
- An authorized agent on his behalf (as defined in 19 CFR 1.11). Importer also includes, as appropriate:
  - —The consignee;
  - —The importer of record;
  - —The actual owner if an actual owner's declaration and superseding bond has been filed in accordance with 19 CFR 141.20; or
  - —The transferee, if the right to draw merchandise in a bonded warehouse has been transferred in accordance with Subpart C of 19 CFR Part 144. For the purpose of this definition, the customs territory of the United States consists of the 50 states, Puerto Rico, and the District of Columbia. When two or more persons meet the same definition of "importer" for the same shipment, the principal in the transaction, not his agent or agents, should report.

Note.—If reporting company purchased in the United States an asbestos product that originated outside the United States, do not report as an importer.

For reporting purposes, there are several classes of importers:

- —An *Importer of Bulk Asbestos* imports bulk asbestos into the customs territory of the United States. Imported bulk asbestos is declared to the United States Customs Service upon entry as Tariff Schedule of the United States, Annotated, (TSUSA) numbers 518.1110-518.1160. Importers need report information only to the extent that the information is in their possession.
- —An *Importer of Asbestos Mixtures* imports asbestos mixtures into the customs territory of the United States. Imported mixtures include, but are not limited to, merchandise declared to the United States Customs Service upon entry as Tariff Schedule of the United States, Annotated, numbers (TSUSA Number) 518.2-518.5, or other TSUSA Numbers that may pertain to asbestos mixtures.
- —An *Importer of Article(s) Containing Asbestos Component(s)* imports an article that contains one or more asbestos components.

Miner and/or Miller of Asbestos: a person who either mines or mills asbestos. Mined or extracted asbestos-containing ore is further milled to produce bulk asbestos. Milling involves the separation of the fibers from the ore, grading and sorting the fibers, or fiberizing crude asbestos ore.

Primary Processor of Asbestos: a person who processes bulk asbestos to makes an asbestos mixture or a product that contains asbestos. A primary processor who make an asbestos mixture and then processes the asbestos mixture at the same site to make a different end product should report production of the final end product. Primary processing includes the mixing or repackaging of raw asbestos fiber.

Product Subcategory: the type of asbestos mixture or the type of end product listed and numbered on the form.

Secondary Processor of Asbestos: a person who processes an asbestos mixture that is then incorporated into that person's end product. Secondary processors use asbestos mixtures that are made at a site other than the site being reported. For instance, asbestos millboard may be purchased by a secondary processor, who could cut that millboard and incorporate it into an appliance.

Appendix B

How To Compute Summaries of Monitoring Data—Instructions and Worksheets

These instructions describe how to compute the arithmetic mean and standard deviation of the TWA values for each category of employees counted in column 4 of part II of the form. It is probably easier to compute the figures by working through one line at a time. For example, a primary processor who has employees working in the fiber introduction area should locate all monitoring data for those employees, and work through question 10 before beginning computations for the next production work category for that end product. A worksheet is attached to these instructions; after completing it, transfer your computations to part II of the form.

I. To compute the "mean" for the TWA values for a production work category, first *list all of the TWA values for employees* counted in the category. Do not include non-detectable TWA values in the following calculations.

For example, assume the following TWA values (listed in column A) for a production work category:

No.	TWA values	Squares of column (A)
1	1.00	1.00
2	1.50	2.25
3	0.50	0.25
4	1.75	3.06
5	1.25	1.56
	6.00	8.12

After listing the TWA values in column (A) on the worksheet, square each value and enter the *square* in column (B) on the worksheet. The squares are used later to compute the standard deviation. Sum both columns.

II. Next, determine the number (N) of values. In this example, N = 5.

III. The "mean" is the sum of the TWA values in column A divided by the number of values (N).

In this example:

$$\text{Mean} = \frac{\text{Sum of TWA Values}}{N} = \frac{6.00}{5} = 1.20$$

IV. To calculate the "standard deviation" of these values, first compute the "variance" according to the following formula.

In this example:

$$(V) = \frac{1}{N-1} \times \left[\text{Sum of Column B} - \frac{(\text{Sum of Column A})^2}{N}\right]$$

$$= \frac{1}{5-1} \quad \frac{[8.12-(6.0\times 6.0)]}{5}$$

$$= \tfrac{1}{4}\,[8.12-7.2]$$

$$= \frac{.92}{4}$$

$$V = .23$$

V. Finally, the standard deviation (SD) is the square root of the variance.

In this example:

$$SD = \sqrt{V}$$

$$= \sqrt{.23}$$

$$SD = 0.48$$

The arithmetic mean is entered in column 5 on the form, and the standard deviation is entered in column 6 on the form.

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Worksheet

I.	No.	(A) TWA Values	(B) Squares of Column (A)
	1.		
	2.		
	3.		
	4.		
	5.		
	Total	_____	_____

II. Number of TWA values (N) = _____

III. $\text{Mean} = \frac{\text{Sum of Column A}}{N}$

IV. $\text{Variance (V)} = \frac{1}{N-1}\left[\text{Sum of Column B} - \frac{(\text{Sum of Column A})^2}{N}\right]$

$= \frac{1}{\square}\left[\square - \frac{\square^2}{N}\right]$

$= \_\_\_\_$

V. $\text{Standard Deviation (SD)} = \sqrt{V} = \sqrt{\_\_\_\_}$

$= \_\_\_\_$

§ 763.77 Reporting secondary processing and importation of asbestos mixtures.

The following EPA Form 7710-37, Reporting Secondary Processing and Importation of Asbestos Mixtures, will be completed and submitted to EPA as required in §§ 763.65 and 763.71. Information must be reported on this form to the extent that it is in the possession of the respondent. Importers must report imported products only if the imported product is listed on this form.

(a) EPA Form 7710-37 (8-80)

BILLING CODE 6560-50-M

EPA

US ENVIRONMENTAL PROTECTION AGENCY

REPORTING SECONDARY PROCESSING AND IMPORTATION OF ASBESTOS MIXTURES

PART I – COMPANY INFORMATION

COMPANY NAME	FOR EPA USE ONLY	
ADDRESS (Street, City, State & ZIP Code)	TECHNICAL CONTACT	TELEPHONE NO.
	IMPORTER ☐ PRINCIPAL ☐ AGENT	

PART II – SECONDARY PROCESSOR END PRODUCT(S)

From the list in Section I, enter the asbestos end product produced. Opposite each product, list the asbestos mixture that you process, and the quantity of each mixture that you consumed in 1981.

END PRODUCT(S)		ASBESTOS MIXTURE(S)		QUANTITY OF ASBESTOS MIXTURE CONSUMED	
CODE	GENERIC NAME	CODE	GENERIC NAME	QUANTITY	UNIT OF MEASURE

PART III – IMPORTERS OF ASBESTOS MIXTURE(S) OR ARTICLE(S) CONTAINING ASBESTOS COMPONENTS

List the asbestos mixture(s) or article(s) that you import and the quantity of each item that you imported in 1981. Opposite each item, enter a description of the asbestos component in the mixture or article.

ASBESTOS MIXTURE(S) OR ARTICLE(S)		QUANTITY OF ASBESTOS MIXTURE(S) OR ARTICLE(S) IMPORTED		DESCRIPTION OF ASBESTOS COMPONENT(S) IN ARTICLE
CODE	GENERIC NAME	QUANTITY	UNIT OF MEASURE	

CERTIFICATION FOR CLAIMS OF CONFIDENTIAL BUSINESS INFORMATION

An authorized company official may claim any information reported on this form as confidential business information. To do this, the confidential information must be clearly circled with a red marker. In addition, an authorized company official must sign below to certify the truth and accuracy of the following four statements, which apply to all information that is claimed.

1. My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures.
2. The information is not, and has not been, reasonably obtainable by other persons (other than governmental bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent.
3. The information is not publicly available elsewhere.
4. Disclosure of the information claimed as confidential would cause substantial harm to my company's competitive position.

SIGNATURE OF AUTHORIZED OFFICIAL	DATE

EPA Form 7710-37 (10-81)

FMSI 02711

REPORTING SECONDARY PROCESSING AND IMPORTATION OF ASBESTOS MIXTURES

INSTRUCTIONS

This form is to be completed by persons who, in 1980, were secondary processors of asbestos or importers of asbestos mixtures or articles that contain asbestos components. See "Reporting Commercial and Industrial Uses of Asbestos", 40 CFR Part 763, Subpart D, for a full description of the reporting requirement and reporting schedule.

If additional space is needed, you should use additional copies of this form.

WHO MUST COMPLETE EPA FORM 7710-37

1. Secondary processors of asbestos must complete Part I and II of the form. Each plant site or manufacturing facility must be reported separately. If you process bulk asbestos fiber to make any of your products at this plant site, then you are a PRIMARY PROCESSOR and you should report this plant site on EPA Form 7710-36.
2. Importers of asbestos mixture(s) or article(s) containing asbestos components must complete Part I and III of the form. If you import bulk asbestos fiber, then you should report all importation activities on EPA Form 7710-36.
3. Those who are both secondary processors and importers must complete Parts I, II and III of the form.

DEFINITIONS

1. Asbestos Mixture - means a mixture which contains bulk asbestos or another mixture. Section 2 below lists typical terms for asbestos mixtures.

2. Asbestos Component—means any asbestos mixture, including any finished product containing an asbestos mixture, which is incorporated into an article. Section I below lists typical terms for products made from asbestos mixtures and components. Some examples of asbestos components are, asbestos paper in a hair-dryer, asbestos-reinforced plastic cabinet of a television; asbestos textile that is part of a particular type of garment.
3. Secondary Processor of Asbestos—means a person who processes an asbestos mixture.
4. Importer of Asbestos Mixtures or Articles Containing Asbestos Component(s)—means a person who imports merchandise that contains asbestos into the customs territory of the United States. Where there are two or more "importers" for the same shipment, the Principal rather than the Agent should report if possible.

PART I COMPANY INFORMATION

Enter the name, address, and phone number of your company. Enter the name of the principal technical contact who is either responsible for the completion of this form, or has sufficient knowledge of its content to respond to questions posed by EPA. If you are reporting as an importer, check the appropriate box to indicate that you are either the Principal Importer or the Agent for the Principal.

PART II SECONDARY PROCESSOR END PRODUCTS

End Products(s)—Locate in Section 1 the name of the product subcategory that most specifically describes your end product. In this column, enter the code number for the end product you make and write in the generic name for the product. If you are reporting a product that is not listed, enter the code for "other" that is listed under the most specific general category of products and write in the generic name. Report each end product on separate lines. For example, if you make appliances and are reporting toasters, enter "114" and "toaster".

Asbestos Mixture(s)—For each end product, locate in Section 2 the name of the asbestos mixture that most specifically describes the asbestos mixture that you incorporate into the end product. In this column, enter the code number for the asbestos mixture and write in the generic name. If you incorporate more than one asbestos mixture into a single end product, then use as many lines as necessary to report all asbestos mixtures in the end product. For example, if you incorporate asbestos millboard into your toaster, your entries would be as follows:

End Product	*Asbestos Mixture*
114 toaster	03 millboard

Quantity of Asbestos Mixture Consumed—Opposite each asbestos mixture that is listed, enter the quantity of each mixture that you consumed in 1980. Specify the quantity according to the unit of measure listed in Section 2. If the unit of measure is not listed, report the quantity in short tons. If your records do not permit you to list the quantities consumed for separate end products, then report the total amount of each type of asbestos mixture and enter "T" (for total) next to the figure.

PART III IMPORTERS OF ASBESTOS MIXTURE(S) OR ARTICLE(S) CONTAINING AN ASBESTOS COMPONENT

Asbestos Mixture or Article—For each type of imported product, locate in either Section 1 or Section 2 the name that most specifically describes the product you import. Enter the code number and generic name for the imported product.

Quantity of Asbestos Mixture(s) or Article(s) Imported—For each product listed, record the total annual quantity imported in 1980. Specify the quantity according to the unit of measure listed in Section 2, if possible, or according to the unit of measure as reported to the U.S. Customs Service upon entry of the merchandise into the United States.

Description of Asbestos Components in Article—List all asbestos components in the imported article by entering the name of the asbestos component opposite the name of the article. If the reported product is an asbestos mixture listed in Section 2, then you should not complete this description.

SECTION 1 - TYPICAL TERMS FOR PRODUCTS MADE OF ASBESTOS MIXTURES

AUTOMOTIVE AND FRICTION PRODUCTS
101 Drum brake lining (light-medium vehicle)
102 Disc brake pads (light-medium vehicle)
103 Disc brake pads (heavy vehicle)
104 Brake block (heavy equipment)
105 Clutch facings (all)
106 Automatic transmission friction components
107 Friction materials (industrial and commercial)
108 Custom automotive body filler
109 Transmissions
110 Mufflers
111 Radiator top insulation
112 Radiator sealant
113 Other (specify generic name)

APPLIANCES
114 Appliance, industrial and consumer (specify generic name)

CONSTRUCTION PRODUCTS
115 Boiler and furnace baffles
116 Decorated building panels
117 A/C sheet
118 Flexible air conductor
119 Hoods and vents
120 Portable construction building
121 Roofing, saturated
122 Roof shingles
123 Wallboard
124 Wall roofing panels
125 Other (specify generic name)

CLOTHING
126 Aprons
127 Boots
128 Gloves and mittens
129 Hats and helmets
130 Overgaitors
131 Suits
132 Other (specify generic name)

FLOOR COVERINGS
133 Vinyl-asbestos floor tile
134 Asbestos-felt-backed sheet vinyl flooring

ELECTRICAL PRODUCTS AND COMPONENTS
135 Cable insulation
136 Electronic motor components
137 Electrical resistance supports
138 Electrical switchboard
139 Electrical switch supports
140 Electrical wire insulation
141 Motor armature
142 Other (specify generic name)

FIRE AND HEAT SHIELDING EQUIPMENT AND COMPONENTS
143 Arc deflectors
144 Fire doors
145 Fireproof absorbent paper
146 Heat shields
147 Molten metal handling equipment
148 Oven and stove insulation
149 Pipe wrap
150 Stove lining, wood and coal
151 Stove pipe rings
152 Sleeves
153 Thermal insulation
154 Other (specify generic name)

GASKETS
155 Sheet gasketing, rubber encapsulated beater addition
156 Sheet gasketing, rubber encapsulated compressed
157 Compressed sheet gasketing (other)
158 Metal reinforced gaskets
159 Automotive gaskets
160 Other (specify generic name)

MARINE EQUIPMENT AND SUPPLIES
161 Caulks, marine
162 Liners, pond or canal
163 Marine bulkheads
164 Other (specify generic name)

PAINTS, COATINGS, SEALANTS, AND COMPOUNDS
165 Asphaltic compounds
166 Automotive/truck body coatings
167 Buffing and polishing compounds
168 Caulking and patching compounds
169 Drilling fluid
170 Fleshing compounds
171 Furnace cement
172 Glazing Compounds
173 Plaster and stucco
174 Pump, valve, flange, and tank sealing components
175 Roof coatings
176 Textured paints
177 Tile cement
178 Other (specify generic name)

TEXTILE AND FELT PRODUCTS (other than clothing)
179 Aluminized cloth
180 Rope or braiding
181 Yarn, lap, or roving
182 Wicks
183 Bags
184 Belting
185 Blankets
186 Carpet padding
187 Commercial/industrial dryer felts
188 Draperies
189 Drip cloths
190 Fire hoses
191 Ironing board pads and insulation
192 Mantles, lamp or catalytic heater
193 Packing and packing components
194 Piano and organ felts
195 Rugs
196 Tape
197 Theater curtains
198 Umbrella
199 Other (specify generic name)

MISCELLANEOUS PRODUCTS
200 Aerial distress flares
201 Acoustical products
202 Ammunition wadding
203 Asbestos-reinforced plastic products
204 Ash trays
205 Baking sheets
206 Blackboards
207 Candlesticks
208 Chemical tanks and vessels
209 Filters
210 Grommets
211 Gun grips
212 Jewelry making equipment
213 Kilns
214 Lamp sockets
215 Light bulbs (all types)
216 Linings for vaults, safes humidifiers, and filing cabinets
217 Phonograph records
218 Pottery clay
219 Welding rod coatings
220 Other (specify generic name)

SECTION 2 - TYPICAL TERMS FOR ASBESTOS MIXTURES

PAPERS, FELTS, OR RELATED PRODUCTS	
01 commerical paper	short tons
02 rollboard	short tons
03 millboard	short tons
04 pipeline wrap	short tons
05 beater-add gasketing paper	short tons
06 high-grade electrical paper	short tons
07 unsaturated roofing felt	short tons
08 saturated roofing felt	short tons
09 flooring felt	short tons
10 corrugated paper	short tons
11 specialty paper (specify)	short tons
FLOOR COVERINGS	
12 vinyl-asbestos floor tile	square yards
13 asbestos-felt-backed vinyl flooring	square yards
ASBESTOS-CEMENT PRODUCTS	
14 A/C pipe and fittings	short tons
15 A/C sheet, flat	100 square feet
16 A/C sheet, corrugated	100 square feet
17 A/C shingle	squares
FRICTION MATERIALS	
18 drum brake lining (light-medium vehicle)	pieces
19 disc brake pads (light-medium vehicle)	pieces
20 disc brake pads (heavy equipment)	pieces
21 brake block (heavy equipment	pieces
22 clutch facings (all)	pieces
23 automatic transmissions friction components	pieces
24 friction materials (industrial and commercial)	pieces
TEXTILES	
25 cloth	pounds
26 thread, yarn, lap, roving, cord, rope or wick	pounds
OTHER PRODUCTS	
27 sheet asketing (other than beater-add)	square yards
28 packing	pounds
29 paints and suface coatings	gallons
30 adhesives and sealants	gallons
31 asbestos-reinforced plastics	pounds
32 insulation materials not elsewhere classified (n.e.c.)	_____
33 mixed or repackaged asbestos fiber	short tons
34 other (n.e.c.)	_____

BILLING CODE 6560-50-C

(b) [Reserved]

§ 763.78 Sunset provision.

All requirements of this rule will terminate five years after promulgation of this rule. This provision is not a defense to any enforcement action based on noncompliance which occurred during the effective period of this rule.

[FR Doc. 82-20688 Filed 7-29-82; 8:45 am]
BILLING CODE 6560-50-M

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 4 1

August 4, 1982

ENVIRONMENTAL PROTECTION AGENCY - ASBESTOS REPORTING REQUIREMENTS

The Environmental Protection Agency (EPA) published its Final Rule on Asbestos Reporting Requirements in the FEDERAL REGISTER on July 30, 1982. A copy of the Final Rule is enclosed.

This rule requires reporting to the EPA by asbestos manufacturers, importers and processors. Specifically included as "Primary Processors" are those who enter asbestos into a product. This would include all friction materials manufacturers who use asbestos in their products. Many friction materials manufacturers would also be required to report in their roles as "Secondary Processors" which would include shops that do additional work on the asbestos-containing product--such as brake rebuilding operations, assembly of new-lined shoes as well as in their roles as importers of friction products.

The effective date for this rule is August 30, 1982. Primary Processors must report to the EPA within 90 days of the effective date of the rules.

The reporting forms required are 7710-36 (Primary Processor) and 7710-37 (Secondary Processor). The forms illustrated in the FEDERAL REGISTER are almost unreadable as they were reduced from the actual 17 x 22 size, and because of limitations on stencil type copying. These forms are available by calling toll free 800-424-9065. While the Institute has ordered copies of these forms, we do not have any available at this writing.

The foregoing is sent as a matter of information.

E. W. Drislane
Executive Director

EWD/e

Copies to:
Delegates and Alternates
Active Members - List B
Regional Members (U.S. Dues)

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

July 19, 1982

To: Health and Environmental Affairs Committee

Subject: Draft Report of the study "Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos"

You will recall that after the last meeting of the Health and Environmental Affairs Committee, I wrote to NIOSH asking for their final report. I have not received any reply from NIOSH.

However, Bob Pigg of the Asbestos Information Association was able to get a copy from NIOSH. I am enclosing the entire report which takes about 90 pages. As a matter of record, two pages were missing from the copy I received--pages 22 and 45. I did not include some additional copy which consisted of blank forms, blank medical reports and the like.

Mr. Pigg advised that they had contacted NIOSH, and a party in Cincinnati has indicated that he would welcome comment on this paper:

Sanford Leffingwell, MD
NIOSH
Robert A. Taft Laboratories
Mail Stop F-5
4676 Columbia Parkway
Cincinnati, OH 45226
(513) 684-2145

Mr. Pigg indicated that he had distributed this paper among his Members and that it is likely that the AIA would be commenting directly. If Members individually wish to comment, those comments would be welcome. If the Institute is to comment, that output would come from this Committee.

E. W. Drislane
Executive Director

EWD/e

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
National Institute for
Occupational Safety & Health
5600 Fishers Lane
Rockville, MD 20857

JUN 10 1982

Mr. B. J. Pigg
Executive Director
Asbestos Information Association
1745 Jefferson Davis Highway
Crystal Square 4, Suite 509
Arlington, Virginia 22202

Dear Mr. Pigg:

As requested by Mr. Nick Hluchyj of your office, enclosed is a copy of the final draft report of the study, "Investigation of Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos." Since this is a draft, undergoing review by the Institute, it is subject to revision.

Sincerely yours,

Carlene Christian
Freedom of Information Officer
(301) 443-2440

Enclosure

FRICTION MATERIALS STANDARDS INSTITUTE, INC., EAST 210 ROUTE 4, PARAMUS, NJ 07652

B U L L E T I N

N O . 7 4 2

August 6, 1982

ASBESTOS COMPENSATION COALITION - PROPOSED
"OCCUPATIONAL DISEASE COMPENSATION IMPROVEMENT ACT"

Mr. Dave Pullen of the Asbestos Compensation Coalition addressed the Institute's Membership at the June Meeting. In his presentation, Mr. Pullen advised that the Coalition was preparing a proposed legislative approach to justly compensate victims of asbestos-related diseases. This would take the form of Federal Legislation with a bill addressing occupational diseases generically, to be supplemented by an implementing resolution directed at asbestos related diseases specifically. Mr. Pullen advised that when a draft of this legislation was available, copies would be sent the Institute.

We have now received copies. As this presentation covers 140 pages, copies are being sent to theMembers of the Health and Environmental Affairs Committee and the Delegates only. Copies are not enclosed with the Alternates'copy of this Bulletin. The papers enclosed are:

1. Memo from the Asbestos Compensation Coalition addressed to "Those Reviewing the Occupational Disease Compensation Improvement Act"
2. Tab A - Summary
3. Tab B - DRAFT BILL - "Occupational Disease Compensation Improvement Act"
4. Tab C - DRAFT RESOLUTION - "Implementing Resolution for Asbestos Related Diseases"

The Coalition has asked for questions, comments and suggestions. If a Member wishes to comment, such comments sent to the Institute will be referred to the Health and Environemtnal Affairs Committee for possible preparation of formal comments. A Member may also wish to comment directly to the Coalition. If there are questions, please direct them to the Coalition--names and phone numbers are shown on the cover memo from the Coalition.

E. W. Drislane
Executive Director

EWD/e

Copies to:
Delegates and Alternates
HEA Committee

6182

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

MEMBERSHIP REPRESENTATIVES:

Robert M. Tami	Carlisle Corporation
Carmen A. Morello	Thiokol Corporation
George J. Bohrer	H. K. Porter Company
Charles H. Borcherding	Abex Corporation
John O. Pearson	Raybestos-Manhattan, Inc.
David E. Stone	Bendix Corporation
James W. Armstrong	Bendix Corporation

COMMITTEE AND INSTITUTE ACTIONS IN SUPPORT OF THE MEMBERSHIP SINCE THE JANUARY 1981 MEETING OF THE COMMITTEE

The following actions have been taken at the Institute Office based on Committee recommendations since the January 1981 meeting:

- The Institute advised the Membership on publications and services available which could be helpful in the occupational safety, health and environmental areas: BNA Occupational Safety and Health Reporter; BNA Chemical Reporter; Fishbein Occupational Health & Safety Letter; Employment Safety and Health Guide (CCH), Consultant listings, etc.

- The Institute released BULLETIN NO. 710 on "Asbestos and Current EPA Requirements Regulating Hazardous Waste Disposal". This included copies of the EPA notice on Identification and Listing of Hazardous Waste, and noted that asbestos had been "temporarily" removed from the list of hazardous materials as it was earlier controlled under regulations in the National Emissions Standards for Hazardous Air Pollutants (NESHAPS).

- The Institute released BULLETIN NO. 711 on "Material Safety Data Sheets". With that notice, it prophetically noted that there was movement in the state of California to make utilization of the "Material Safety Data Sheet" mandatory. The MSDS is now required in the new California regulations and is currently proposed as part of an OSHA hazards material identification and employee communication regulation.

- During the later part of the year 1981 legislative activity slowed down and so did the work of the Committee. In early 1982, activity restarted on a different front.

- A committee meeting was held on April 28, 1982 to address the following issues:

  Issue
  - Increasing workers compensation and third party litigation against members.

  Resolved
  - The FMSI President invited representatives of the Asbestos Compensation Coalition to address the full Institute membership at the June, 1982 meeting.

Issue

. Member companies having difficulty finding waste disposal sites.

Resolved

. The Board of Directors approve a request to the Federal Environmental Protection Agency for a listing of approved landfills for the disposal of friction materials waste and suggest the means for making this request.

Issue

. That the Health and Environmental Affairs Committee address issues relating to the Consumer Product Safety Commission.

Resolved

. Brake lining is not a "consumer product" in terms of the Consumer Product Safety Act. Under that Act, 15 U.S.C. #2052 expressly excludes from the definition of "consumer product" all "motor vehicle equipment", the latter including all replacement as well as original items. Brake lining is governed by the Motor Vehicle Safety Standards Act, 15 U.S.C. #1391 et seq., under which the recall method is orderly.

Regulatory Activities:

OSHA

No new activity has occured over the issue of asbestos. OSHA does plan to issue an advance notice of proposed rulemaking during the later part of 1982. We are lead to believe the prime government concern for this action is to direct attention to the construction industry rather than a further effort toward friction materials.

There has been some state regulatory activity basically in California, Connecticut and New York directed at regulating hazardous substances including asbestos and employee right-to-know. Main impact of this movement is to require employers to have training programs which advise employees of the specific chemical hazards and safety procedures to prevent exposure.

NIOSH

In 1977 the Mount Sinai School of Medicine was awarded $180,000 to investigate "Health Hazards in Brake Lining Repair and Maintenance Workers Occupationally Exposed to Asbestos". The work was to be completed in 1978.

The Institute provided input to Dr. Nicholson of Mount Sinai, in regards to production, brake application and work practices in the friction materials industry. The Institute was also asked to critique an early section on background history in early 1979. We critized it severely as not being representative of the industry.

In early 1980, the FMSI Secretary asked Richard Guimond of EPA's Office of Toxic Substances when the Nicholson report for NIOSH would be ready, and was advised it would be ready in about six months - making it July 1980.

The only document published to date is a NIOSH "Assessment of Asbestos Exposure to Mechanics Performing Brake Service Operations Including Recommended Procedures for Asbestos Brake and Clutch Servicing". NIOSH emphasizes that this is a "Draft" report. It was dated April 27, 1981.

In no place does this "Draft" report touch on the health effects of asbestos exposure in the brake repair shop. It repeated some of the inaccurate background and history statements of the early 1979 Nicholson draft. It is obvious that if this study is now complete, NIOSH did not get what was called for in the $180,000 contract. If the health effects are not reported thereon, why? Can it be inferred that the results do not support the NIOSH position that there is a health problem in brake repair shops? If the results were negative, those results should also be part of the public record. The Asbestos Information Association has written NIOSH asking for the current status of this project. In early June, the FMSI also made a request for copies of the final report.

EPA

There has been a shrinkage of waste disposal sites and of waste management companies that will dispose of friction material wastes. Because this action is at a State level, it is difficult for the Institute to track the movements on available landfills and waste disposal sites. Since this is now becoming a significant problem, the Institute is advising the members to begin looking for alternate disposal methods.

A recent thrust at the Federal level is to assure the financial responsibility of waste generators who may be ultimately responsible for clean-up of waste disposal sites. There are now insurance coverage requirements for generators - to assure coverage for both sudden and non-sudden environmental impacts. There is great difficulty in establishing insurance premium rates for coverage of this type of unknown environmental impact. All materals - not just asbestos - must be of concern. With asbestos being inert, more concern is probably with phenol, formaldehyde, lead and some of the solvents used in the manufacturing cycle.

Respectfully submitted,

J. W. Armstrong
Chairman

FRICTION MATERIALS STANDARDS INSTITUTE

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

CHARTER

I. General Responsibility:

Responsible for the monitoring of existing and proposed worldwide Federal, State and Provincial legislation, regulations and literature on safety, health and environmental matters affecting members of the Friction Materials Standards Institute and the proposal of Institute positions on these matters.

II. Specific Responsibilities:

- Develop action plans and position papers on Safety, Health and Environmental Protection matters for approval and direction of the FMSI Board of Directors.
- Provide direct coordination with the Asbestos Information Association Committees of concern to FMSI.
- Develop and administer a continuing education program for the members of the Institute.
- Monitor the membership's experience with meeting regulatory requirements in order to provide technical assistance.
- Establish and maintain a working relationship with Federal, State, Trade and other agencies and organizations.

Approved by the Board of Directors at February 25, 1980 Meeting.

FRICTION MATERIALS STANDARDS INSTITUTE

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