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PLAINTIFF'S EXHIBIT
UC-3526

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1 May 1978

Dockets Section
Office of Hazardous Materials Operations
Department of Transportation
Washington, D.C. 20590

Re: Notice of proposed rulemaking. Transportation of Asbestos; (Docket No. HM 168; Notice No. 78-3; FR Vol. 43, No. 42, March 2, 1978

Gentlemen:

The Asbestos Information Association/North America (hereinafter the AIA/NA) invites the attention of the Department of Transportation to the comments herewith submitted in accordance with the Federal Register notice of March 2, 1978.

AIA/NA is an incorporated, non-profit organization of 51 firms in the United States and Canada engaged in the mining/milling of asbestos fiber and in the manufacture or processing of asbestos-containing products. The AIA/NA was established in 1970 with the following objectives:

- To provide industry-wide information on the asbestos-health relationship, and on industry efforts to eliminate problems associated with asbestos dust.
- To cooperate with government agencies in developing and implementing standards for worker protection from asbestos dust, and for the control of asbestos emissions into community air and water.
- To exchange information on asbestos dust control methodology.
- To assist members in the solution of asbestos-health related problems.
- To increase public knowledge of the benefits to be derived from and the importance of asbestos-containing products.

A list of members is attached.

INTRODUCTION

Substantial changes in the packaging and shipping of asbestos fiber have been made over a period of more than ten years. Permeable bags such as those made of jute have been replaced with strong, multiwall kraft paper bags and film or woven plastic bags. Paper bags may be covered or lined with plastic as an added protective measure. Asbestos pellets and compressed blocks which also control dust emission have been developed for certain applications. Both are enclosed in paper or plastic to further ensure that no dust emissions occur. Pellets may also be shipped in hopper cars.

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It is customary to package asbestos in bags containing 100 pounds of fiber. Manufacturers' formulae and handling procedures are generally based on incremental quantities of 100 pounds of fiber in bags. Paper bags are preferred in some manufacturing processes because the bag and its contents can be introduced into processing without adverse effect on the product and, by so doing, eliminate risk of fiber exposure. Bag opening machines have been designed to eliminate dust emissions during the introduction of fiber into the manufacturing process.

In transportation of major asbestos shipments from mills, bags are stacked as unitized loads on pallets and the pallets are wrapped with plastic film. Gluing bag to bag and metal strapping may be used as a means to avoid shifting of pallet loads. Lumber and inflatable dunnage may be used between pallets in rail and truck transport. Bagged asbestos on pallets is transported in intermodal freight containers for marine shipment. Small-lot shipments of bags by truck from warehouses or other sources are common and may or may not be palletized depending on the number of bags transported. Tests have demonstrated both plastic and paper bags withstand transport and handling in this manner without unusual risk of breaking or tearing.

The methods and procedures now in use for the packaging and transport of asbestos meet the requirements of Part 173.24 (A) of the Transportation Act, that is "under conditions normally incident to transportation there will be no significant release of the hazardous materials to the environment" and "the effectiveness of the packaging will not be substantially reduced."

We submit there is no need for the proposed regulations on the basis that current practices and procedures for the transport of asbestos are in compliance with pertinent provisions of the Transportation Act. The proposal contains no documentation to justify additional regulation. This is the position of this Association in response to the Department's proposal.

We take this opportunity to offer a number of comments on specific areas of the proposal which we believe will be helpful to the Department in its deliberations. A discussion follows:

DISCUSSION

I - Unreasonable Risk to the Public

The Transportation Act of 1974 requires the finding of "an unreasonable risk to the public" as the statutory basis for the promulgation of a regulation (49 U.S.C. 1803, 1804). The March 2, 1978, DOT Proposal, addresses this issue in Part II starting with the following statement:

> "The MTB believes it to be firmly established that asbestos in its several commercial forms, poses serious health hazards to individuals subject to long-term exposure to airborne asbestos concentrations. As noted in the 1972 preamble of the Occupational

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> Safety and Health Administration (OSHA) standard on asbestos (37 FR 11318): "No one has disputed that exposure to asbestos of high enough duration is causally related to asbestosis and cancers." ... Recent new evidence, however, as reported by OSHA, not only tends to confirm this finding but also suggests that serious potential health risks are involved with even relatively low-level, brief or intermittent exposure to airborne asbestos concentrations." (Emphasis added)

The claim that asbestos "...poses serious health hazards to individuals subject to long-term exposure to asbestos concentrations" requires more explicit definition. Man has been exposed to naturally occurring low concentrations of asbestos throughout his existence. Asbestos is common to the earth's crust. There are no known or identified health hazards from natural sources. DOT's statement, without identification of concentration, is not substantiated.

The statement from the proposal discussed above was supported by an erroneous quotation from OSHA (37 FR 11318):

> "No one has disputed that exposure to asbestos of high enough duration is causally related to asbestosis and cancer."

Key words relating to level exposure were omitted. The quotation should have read:

> "No one has disputed that exposure to asbestos of high enough intensity and long enough duration is causally related to asbestosis and cancers." (Underlined words were omitted)

For more complete understanding of the problem, reference should have been made to unanswered questions within the scientific community concerning mineral type, fiber size, and smoking in the asbestos-cancer relationship.

A reference is made to "recent new evidence" reported by OSHA which "also suggests" serious potential health risks from relatively low-level, brief, or intermittent exposure. AIA/NA provided comments to OSHA on this "new evidence" (copy attached) with the following conclusions:

> "Review of the literature indicated that no credible epidemiological studies have been published which would suggest an excess of malignant tumors among persons exposed to no more than 2 asbestos fibers per cc of air (TWA), using the prescribed membrane filter test method. This is a fact simply because there have yet been identified for study no populations the exposure experience of which consistently has been as low as 2 fibers.

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> Since all populations studied to date have been exposed to substantially higher concentrations of airborne asbestos, we can conclude only that an excess of all types of asbestos disease is associated with levels of exposure significantly higher than the level currently mandated to become effective on July 1, 1976."

That portion of the OSHA references cited in the proposal wherein worker exposure to asbestos dust is of sufficient duration and the cohort is of sufficient size to be valid for standards setting is based on the occupational situation where raw fiber is handled with regularity. In transportation, the fiber is contained in sealed bags. The only direct contact of a transport worker with free fiber would be in the event of an accident. The difference between these situations was not considered in the Department's proposal.

This section of the preamble of the proposal concludes with the statement:

> "Although there is no detailed information available on the amount of asbestos fibers released in transportation, the MTB believes that, in consideration of the carcinogenic and other health hazards associated with asbestos, there is a sufficient basis for establishing regulatory control of asbestos in transportation." (Emphasis added)

From the statement that "..there is no detailed information available on the amount of asbestos fibers released in transportation.." and the fact that inaccurate and disputed information, as noted above, was used in the development of the proposal,we contend that sufficient evidence to meet the statutory requirement of the finding of "unreasonable risk" needed to promulgate a regulation has not been presented.

II - Rigid, Airtight Packages to Transport Asbestos

Bagged asbestos is typically introduced into the manufacturing process by inserting bags under a hood or placing them adjacent to a suction duct. The bag is slit and the fiber is released into a hopper or process tank. Empty bags are placed in plastic containers for disposal in accordance with OSHA regulations. Hoods and suction ducts are designed to accommodate the standardized bags.

Commercial asbestos is fluffy. It is difficult to pack this material in a rigid container and, because the fiber would gradually compact during shipment, it would be difficult to remove it for introduction into the manufacturing process. It would also be extremely cumbersome, if not impossible, to empty rigid containers effectively and rapidly into hoods designed for bags. Spillage would no doubt occur and workers would be unnecessarily exposed to fibers.

In addition to these packaging and handling problems, cost and logis-

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tical factors in the use of rigid containers must be considered. The standard package for asbestos is a 100-pound bag and manufacturing formulations are based on this unit size. The equivalent rigid container to hold 100 pounds is a 15-gallon open-head drum that would be required to be fitted with a gasket and seal ring to make it dust tight. This type of container is available in fiberboard (leverpack) at a cost of about $3.00 each and in metal at about $5.75 each. The annual asbestos usage in the United States is about 750,000 tons. Fifteen million drums at a cost of $45,000,000 to $90,000,000, depending on choice of material, would be required.

At these purchase costs, return and reuse of the container must be considered. Since shipment of asbestos has not been made in this manner, there are no specific data on the average number of round trips to be expected with such containers. Damage from repeated handling is expected to be substantial and only dust-tight drums could be reused. For calculation purposes an average of one and a half round trips for leverpack and three round trips for metal has been assumed.

The cost of shipping a carload of 1680 empty drums at weights of 10,416 pounds for leverpack and 18,480 pounds for metal to Quebec from three representative locations in the United States are summarized in the table below:

	Shipping Cost per Drum	
	Leverpack	Metal
New York City	0.44	0.57
Houston	1.14	1.48
Los Angeles	1.64	2.13

The materials cost for present packagings, i.e. multiwall paper bags on pallets with the pallet wrapped in plastic sheet, is about $15 per ton or $0.75 per 100-pound unit. The incremental cost for materials only can be calculated as the original cost of the drum adjusted for the average service life, plus the cost to return it to the origin, minus the saving from the elimination of the present packaging. For the case here, this ranges from $34 to $65 per ton depending on the location.

There is also a disposal cost to consider. With the service life assumed, 10 million leverpack or 5 million metal drums would be added to the present burden on the solid waste disposal facilities of the country. These containers would each have to be vacuum cleaned or washed to remove the last trace of asbestos or be deposited in controlled hazardous waste facilities.

In view of the high materials cost, the need to develop new filling and handling technology, the obsolescence of existing dust control equipment, and the added waste disposal problems, rigid containers are simply not practicable for asbestos packaging.

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III - Shipment in Uncovered Vehicles

Prohibition of transport of bagged asbestos in open vehicles would result in severe and costly disruption to the industry, particularly to small businesses. Two modes must be considered: (1) shipment of TL amounts of palletized bags on flatbed trucks and (2) shipment of LTL quantities either palletized or as individual bags from warehouses and other sources to small users.

Flatbed truck shipments are the result of specific transportation needs and are handled by both contract and common carriers. Examples include, but are not limited to, the movement of product from the mill to the rail shipping point, deliveries to larger users within a limited geographical area from an asbestos mill, and backhaul of asbestos from the supplier to the asbestos user's plant. In this type of shipment, the pallets generally are protected by one or more of the following procedures:

- Pallets are shrink or stretch wrapped with plastic film.
- Individual bags are enclosed in plastic film prior to palletizing.
- The entire load is protected with a canvas or plastic cover.

Shipments from warehouses are typically less than truckload, i.e. from a few bags to a few pallets. Although the total tonnage is a relatively modest percentage of the total U.S. usage, it is estimated that 500-1000 businesses, many of them small, are serviced in this manner. Examples include manufacturers of caulks, adhesives, sealants, mastics, reinforced plastics and high-performance specialty industrial coatings. In these cases, asbestos is used to provide unique properties to a product. Although bagged asbestos may move in closed trucks in inter-city shipments, a substantial amount is transported in open vehicles. In this situation, the pallets normally are or should be covered with plastic film. Similarly, where individual bags are handled, they are either covered or lined with plastic film.

The DOT concern seems to be the need to avoid airborne asbestos emissions to the environment from the moving vehicle. This can and is being achieved in open vehicles today. Prohibition of their use is not needed or justified.

IV - Definition of Occupational Exposure to Asbestos

A far-reaching impact of this proposal comes from a wording which occurs with variation to identify the type of carrier, in Parts 174, 175, 176, and 177. This is illustrated in paragraph 177.844:

> "Asbestos must be loaded, handled, and any asbestos contamination of transport vehicles removed, in a manner that will prevent occupational exposure to airborne asbestos particles." (Emphasis added)

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If it is assumed that "prevent occupational exposure" means what it implies, i.e. zero exposure, some fundamental problems result. Asbestos is ubiquitous in the environment and there are no workplaces where there is zero occupational exposure to asbestos. Zero or any other extremely low-level exposure requirement, as a practical matter would preclude the use of bag and compressed block packaging. With the very large volume of asbestos shipped, occasional container damage may occur. There is no provision for this in a zero exposure standard and the problem cannot be eliminated entirely regardless of the container used. Such a requirement would be incapable of compliance.

The wording also does not define which workers are covered by a DOT standard. It is assumed that the DOT jurisdiction applies only to employees of the transportation employer who are engaged in specific tasks in proximity to the transport vehicle. Employees of the manufacturing, the warehouse facilities, and the end user of the asbestos would be under OSHA asbestos regulation.

The wording in the proposal lacks: (1) clear and concise definition of the statutory authority under which the regulation would be promulgated and identification of workers to be covered, (2) definition of occupational exposure to include a specified numerical level, specification of fiber length and aspect ratio of fibers; and (3) an analytical method to measure airborne fiber concentration.

V - Loading by Consignor, Unloading by Consignee

The meaning of the requirement that bags shipped in closed transport be loaded by the consignor and unloaded by the consignee is not clear. Does this mean that transport company employees cannot load, unload, or transship? If so, such a restriction would seriously impact on the small user. Present asbestos packaging satisfies the statutory requirement of "no unreasonable risk". An added restriction is unnecessary.

VI - The Use of Package Markings

The proposed regulation places asbestos in Class ORM-C, but labels are not required. ORM-C identification on shipping papers is necessary only for air and water transport. The proposal does not define package marking requirements. It would appear, however, that paragraph 177.316 of the Transportation Act would require a marking on each package, i.e.

ASBESTOS
ORM-C

Under present OSHA regulations, every bag of asbestos must be labeled:

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

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This is a more informative marking than that required under paragraph 172.316. The OSHA stipulation that this label must be on every bag of asbestos is fully responsive to the Department of Transportation marking requirements.

The Association respectfully submits its views on this important rulemaking proposal affecting the asbestos industry. We will be happy to provide any additional information or clarification of these comments as might be desired.

Very truly yours,

R. H. Mereness
Executive Director

RHM:sm

Enclosures

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