

BOARD OF DIRECTORS MEETING

JUNE 13, 1984

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ASBESTOS INFORMATION ASSOCIATION
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BEFORE THE
UNITED STATES DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In re

PROPOSED STANDARD FOR
OCCUPATIONAL EXPOSURE TO ASBESTOS

OSHA Docket
H-033C

ADVANCE WRITTEN TESTIMONY
AND DOCUMENTARY EVIDENCE

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STANDARD FOR OCCUPATIONAL EXPOSURE
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COMMENTS OF THE ASBESTOS INFORMATION
ASSOCIATION/NORTH AMERICA

INTRODUCTION

The Asbestos Information Association/North America ("AIA/NA") welcomes the opportunity to address OSHA's proposed revisions to the occupational health standard for asbestos, 49 Fed. Reg. 14116 (April 10, 1984). The purpose of these comments is to describe AIA/NA's position in these proceedings and to outline briefly the testimony and evidence that will be introduced during the hearings in support of AIA/NA's position. AIA/NA's Advance Written Testimony and Documentary Evidence ("AIA/NA Advance Testimony") is being filed simultaneously herewith.

In brief, AIA/NA's position has two major components.

First, with respect to primary manufacturing and secondary fabrication activities, the OSHA permissible exposure

limit ("PEL") for asbestos should be reduced to the lowest level feasible through engineering and work practice controls. Although a reasonable lead time will be needed to achieve widespread compliance with such a limit, the new PEL will reduce average asbestos exposures, for all workers in virtually all industry sectors, to levels that are at or below the borderline of detectability under the optical microscopy method of measurement (i.e., about 0.1 fibers/cc).

Second, AIA/NA supports a practical and highly protective standard governing asbestos exposure in construction and other non-fixed operations. Specifically, OSHA should dispense with many of the customary ancillary requirements of OSHA standards and instead prescribe specific work practice and respirator controls tailored to the type of exposures that are likely to occur in the various operations. The construction industry -- especially demolition, removal, and other activities involving friable asbestos materials that are no longer produced -- provides the greatest opportunity for achieving meaningful worker health gains in the present rulemaking.

Apart from these two major issues,^{1/} AIA/NA believes that these hearings should provide a forum for examining

^{1/} The other issues raised by the proposal, such as frequency of monitoring, regulated areas, the elements of

(Footnote 1 continued on next page.)

other measures for providing an additional margin of health protection for workers exposed regularly and for extended periods in primary and secondary industries. Among other things, we urge OSHA to consider the effectiveness and practicability of three such supplemental worker protection programs: (1) a requirement that feasible engineering and work practice controls that are shown to yield significant exposure reduction benefits be implemented even in work-places that are achieving the new PEL; (2) a program to reduce substantially or eliminate smoking among asbestos workers; and (3) a program to achieve respirator use even where the PEL has been achieved through feasible engineering and work practice controls. As previewed below, AIA/NA intends to explore these and other supplemental protective measures during the hearings.

BACKGROUND

AIA/NA is an incorporated, not for profit organization founded in 1970 that obtains and disseminates information on asbestos and its relationship to human health for the various segments of the asbestos industry, government, the news media and the public. AIA/NA currently has 52 members,

(Footnote 1 continued from previous page.)

medical surveillance, hygiene facilities, and the appropriate triggers for these and other provisions (e.g., an "action level"), will be addressed in subsequent AIA/NA submissions.

each of which is a company that mines and mills asbestos, manufactures products containing asbestos (primary manufacturers), or fabricates asbestos-containing products for specific uses (secondary processors). The mining and milling and primary manufacturing activities of AIA/NA's members constitute a majority of all such activities in North America.

Despite industry's firm conviction that current controlled use of asbestos in mining, manufacture and installation of asbestos-containing products does not pose significant health hazards, AIA/NA believes unnecessary asbestos exposures should be avoided.^{2/} AIA/NA has been a participant for many years in deliberations to develop an improved standard for occupational exposures. Four years ago AIA/NA recognized the need for OSHA to develop a more workable standard for control of exposures in construction workplaces and submitted to OSHA its Recommended Standard for the Construction Industry (OSHA Ex. 84-307). Through the intervening years, AIA/NA has met with OSHA on many occasions to

^{2/} AIA/NA has not challenged the many Federal regulations over the years that have set strict standards for use of asbestos. AIA/NA's recent challenge to the OSHA Emergency Temporary Standard did not reflect a belief that the OSHA permanent standard should not be tightened in ways that would improve worker health, but rather was brought to contest OSHA's unsupported premise that an emergency existed requiring such actions without full public hearings. The Court agreed with AIA/NA that OSHA had failed to substantiate any necessity for the ETS, or to support its prediction that an emergency existed. AIA/NA v. OSHA, 727 F.2d 415 (5th Cir. 1984).

indicate its willingness to work with the agency to develop an improved standard for both fixed site workplaces and construction.^{3/}

There can be no doubt that occupational exposures in the past have left an unfortunate legacy of disease that affects how all persons view asbestos. It is important, however, that discussion of risks posed by asbestos recognize the stark contrast between past practices responsible for the disease being seen now and the risks posed at the much lower exposure levels prevalent today. Too often, asbestos has been characterized as uniquely hazardous, when in fact dramatic improvements in control have lowered exposures in manufacture, installation and use of asbestos-containing products to levels that, even under upper-limit risk assessments, pose risks no higher than those common in most workplaces. Attached Affidavit of B. J. Pigg, ¶ 30-43.

Important to an understanding of the much lower exposure levels prevalent today is recognition that friable asbestos products are no longer marketed. Although friable products may still be encountered in demolition and removal activities

^{3/} Additional background information on AIA/NA's involvement in urging improvement and tightening of the asbestos standard is provided in the attached affidavit of the Association's Executive Director, B.J. Pigg, submitted in AIA/NA v. OSHA.

and pose high risks if proper work practices are not employed, the asbestos-containing products marketed today contain asbestos in locked-in or encapsulated forms such that fiber release will not be significant if proper work practices are employed. Id. ¶¶ 31, 37-39. Indeed, the great majority of the asbestos risks existing today are in demolition or removal activities where appropriate work practices and respiratory protection required under the existing OSHA standard and EPA Clean Air Act NESHAPs regulations are not being employed. See AIA/NA v. OSHA, 727 F.2d at 425-27.

OVERVIEW OF AIA/NA'S POSITION

The comprehensive evidence that the harmful effects of asbestos are dose-related, the great progress that has been made to reduce asbestos exposures, and the predictions from the medical evidence that de minimis, if any, risk exists at the low levels that can be achieved in most asbestos applications, establish the major guidelines for developing a policy for future asbestos use. Consistent with these general principles, AIA/NA believes improvements can be made in the existing OSHA asbestos standard that both will be feasible and will establish an even greater margin of worker health protection than the current OSHA standard provides.

1. The Permissible Exposure Limit.

The revised eight-hour TWA permissible exposure limit for asbestos^{4/} should be set at the lowest level that is feasible (i.e., the lowest level routinely achievable through available and cost-effective measures) through engineering and work practice controls. For most sectors, a 1.0 fiber/cc PEL can be achieved in a matter of months and many work stations could attain even lower limits in a similar period. Widespread compliance with a PEL at or approaching 0.5 fibers/cc could be achieved within a reasonable additional period, although up to four years may be needed for a few especially troublesome work stations.

AIA/NA's expert witnesses will show that under OSHA's traditional enforcement policy, which holds employers strictly accountable for meeting exposure limits at all places and at all times, asbestos PEL's below 0.5 fibers/cc are not feasible. Both technological constraints and inability to measure reliably exposures below 0.5 fibers/cc set a lower limit of 0.5 fibers/cc on feasibility. See Testimony of Gordon M. Bragg, Ph.D., Eric Chatfield, Ph.D., and Marcel

^{4/} AIA/NA will comment separately on the question of an appropriate ceiling concentration. For the present, we note only that there is no evidence that peak episodes of exposure pose any acute health risks, and that accordingly a ceiling may be predicated only on the questionable premise that a short-term limit is needed to assist in achievement of the 8-hour TWA.

Cossette, Ph.D., AIA/NA Advance Testimony Vol. II. Nonetheless, AIA/NA experts will demonstrate that a revised PEL set at the lowest feasible level will provide a very high degree of worker protection, because employers will have to engineer their workplaces to very low average exposure levels to minimize occasional exceedances of the PEL. Specifically, a 1.0 fiber/cc PEL would result in average exposures for all workers of approximately 0.25 fibers/cc; and a 0.5 fibers/cc PEL would result in even lower average exposures of approximately 0.1 fibers/cc -- a level in the range where asbestos measurements are generally not distinguishable from background.

2. Supplemental Engineering
and Work Practice Controls.

Apart from setting the revised PEL at the lowest feasible level achievable through engineering and work practice controls, OSHA should consider a supplemental requirement that feasible controls that have been shown to reduce exposures appreciably be implemented even at work stations in primary and secondary manufacturing where the PEL is otherwise being maintained. Such an approach, similar to what OSHA has adopted in past health standards (see the coke oven standard, 29 C.F.R. § 1910.1029(f)), would provide an additional margin of worker health protection that is otherwise

precluded because of limitations in the measurement technique.^{5/}

AIA/NA urges OSHA to explore the desirability and practicability of such a supplemental control provision in the upcoming hearings. Work practice and housekeeping controls deserve special attention, since their effectiveness in lowering exposures is comparatively easy to evaluate in many instances. In any event, the propriety of control specifications on a sector-by-sector basis should be examined, as should the workability of a generic requirement for "best feasible controls" to be worked out on a case-by-case basis.

3. Respiratory Protection.

As noted above, AIA/NA believes that the PEL should be set at the level that is regularly achievable through engineering and work practice controls. For purposes of achieving the PEL, respirators should generally be regarded as a last resort, as is consistent with good industrial hygiene practice and OSHA's Cancer Policy, 29 C.F.R. §§ 1990.142(a)(2)(iii) & .151(g)(1).

^{5/} In addition, OSHA should recognize the desirability of a research and development program to improve the accuracy and precision of airborne asbestos fiber measurement. Whether or not such an improved method is based on the optical microscopy approach currently in use, it would, if properly designed, tested, and validated, remove a major barrier to assessing the effectiveness of engineering and work practice controls for lowering occupational asbestos exposures even further than is now possible.

Nevertheless, the revised standard should recognize that respirators of necessity will play an important role in protecting worker health. Respirators will be needed, of course, during the period when engineering and work practice controls are being implemented. Further, certain operations and work stations cannot achieve such low exposures without the employment of respirators. For example, most maintenance operations on dust control equipment cannot be conducted without posing a potential for higher exposure that cannot be prevented other than through respirators.

Similarly, OSHA's Cancer Policy incorporates sufficient flexibility to allow for respirator use in limited circumstances where engineering controls, even if "feasible," will accomplish only marginal exposure reduction gains at excessive cost, particularly where respirators need be worn only for brief periods. See 45 Fed. Reg. 5002, 5225-26 (January 22, 1980). The revised asbestos standard should incorporate this same degree of flexibility without sacrificing the principle of primary reliance on engineering and work practice solutions to achieving the PEL.

In addition, AIA/NA believes that OSHA should consider incorporating in the final standard a provision for supplemental respirator use even in workplaces that are achieving the lowest exposure levels attainable through feasible engineering and work practice controls. The Association believes employers in primary and secondary manufacturing

should make respirators available to all workers who are potentially exposed to asbestos and should aggressively encourage their use. Moreover, OSHA should invite a full exploration during the hearings of the wisdom of making such a supplemental respirator requirement mandatory for some or all asbestos workers in primary and secondary manufacturing.

4. Smoking.

As OSHA has concluded, "[c]igarette smoke and asbestos exposure appear to have a multiplicative relationship for causation of lung cancer." 48 Fed. Reg. 51086, 51110 (November 4, 1983). In fact, AIA/NA's experts will demonstrate that a substantial proportion of the health risk predicted by OSHA's asbestos risk assessment (over half the overall cancer risk) is attributable to the underlying lung cancer risk among smokers. (See Testimony of Kenny S. Crump, Ph.D., AIA/NA Advance Testimony, Vol. I). This universally accepted multiplicative relationship between smoking and asbestos exposure demands that OSHA carefully examine strong measures to prevent smokers from working in asbestos jobs. Indeed, some companies in the asbestos industry have already sought to limit hiring to non-smokers, banned smoking in the workplace, or sponsored programs to encourage their workers to stop smoking.

AIA/NA believes that OSHA should explore in these hearings the option of mandating such programs for workers

in primary or secondary manufacturing activities where exposures to asbestos tend to be continuous and can extend over an appreciable portion of working lifetimes. Specifically, OSHA should evaluate a variety of alternatives which (singly or in combination) could be employed to assure that workers who smoke will not be allowed to work in jobs involving continuous asbestos exposures. Such measures include: (a) banning new hires who are smokers; (b) requiring an aggressive anti-smoking program for existing workers; (c) removing smokers from jobs with asbestos exposures, perhaps after allowing a reasonable period (say, a year) to quit, with mandatory transfer to non-asbestos jobs when such jobs exist within a plant; or (d) requiring smokers to wear respirators regardless of asbestos exposure levels.

5. Education.

In order for either anti-smoking or respirator programs to be effective, AIA/NA agrees with OSHA that workers with exposures to asbestos deserve full information on the potential risks of asbestos and the means to reduce those risks. AIA/NA itself has circulated such information in the past, as have its member companies. An educational program that acquaints workers with risks and means to reduce such risks should be an integral part of any OSHA asbestos standard. Through aggressive education programs, both anti-smoking and

respirator programs can be made an effective means of reducing exposures and health risks to levels that are undeniably de minimis.

6. Construction.

AIA/NA agrees with OSHA's finding "that there are differences between the construction industry and other industries covered by the Act," including "the transient nature of most construction employment, the changing conditions of exposure due in large part to outdoor exposures, and the short tenure of employment in some cases." 49 Fed. Reg. at 14129. The Association further endorses OSHA's conclusion that these and other factors "combine to pose special difficulties in designing worker protection programs" in construction. Id. In particular, requirements such as routine exposure monitoring and medical surveillance, recordkeeping, and hygiene facilities, while entirely appropriate for fixed-site jobs in other industries, are neither effective nor practical in construction.

Accordingly, a separate asbestos standard for the construction industry is needed, one which avoids the impracticable requirements that commonly appear in OSHA health standards but which nonetheless provides an ample margin of worker health protection. AIA/NA also strongly believes that a practical and effective standard for asbestos exposure should recognize the significant differences in the types of

exposures that could occur in construction activities from asbestos products.

At one extreme, many asbestos-containing products present no risk of significant fiber release under any foreseeable conditions of installation and use. Asbestos-containing roof coatings, for example, contain asbestos bound into an asphalt matrix such that fibers are not released during installation or use. See Testimony of Eric S. Wormser and Richard Alexander, AIA/NA Advance Testimony Vol. IV. The installation of such products on construction sites need not be regulated by OSHA.

At the other extreme, work with friable products, as would be encountered in demolition or removal activities, could involve substantial exposures if appropriate work practices and respirators are not employed. Requiring contractors who engage in such activities to be certified may be appropriate to assure that such exposures -- which OSHA has identified as the vast majority of worker exposures to asbestos now posing risks -- are well-controlled. Stringent measures to control exposures during demolition and removal of friable asbestos, including the respirator requirement in the existing standard, should be mandated and enforced.

Between these two extremes are potential exposures installing non-friable asbestos products. Such exposures are characteristically infrequent, of short duration, and

low when proper work practices are employed. See Testimony of Joseph C. Jackson, Sherrell A. Mercer, Jeptha Wade, and Richard E. Keough, AIA/NA Advance Testimony Vol. IV. Regulation of products in this category, such as asbestos-cement pipe and sheet, should include: (a) employment of proper work practices that minimize fiber release throughout installation,^{6/} and (b) use of respirators for the very brief periods when certain occasional operations may lead to the release of substantial numbers of fibers. Such requirements would be practical and easily enforceable, but would result in cumulative exposures that are truly de minimis. Installation worker exposures would average well below 0.01 fibers/cc on a time-weighted basis, and thus neither monitoring nor medical surveillance would be appropriate nor of any meaningful significance to protection of worker health.

* * *

The improvements to the OSHA asbestos standard proposed by AIA/NA would result in very low exposures in all workplaces. By lowering the PEL, exposures would average as low as the minimum level of reliable detection for asbestos. Such exposures would reduce worker risks, even under OSHA's upper limit risk assessment, to levels in the range of

^{6/} AIA/NA believes that the appropriate work practices for all major asbestos products still marketed can be identified during the hearings. Thus, there is no longer any need for the product certification and work practice validation scheme AIA/NA first suggested over four years ago. See Exhibit 84-307.

residual risks calculated by OSHA in its recent rulemakings on other workplace hazards (e.g., arsenic, ethylene oxide, ethylene dibromide) and to well below the risks of accidental death in most workplaces.. When OSHA's risk assessment is corrected to estimate more likely, rather than upper limit, risks, the projected risks would be even smaller. For non-smokers, the risk would be well below 1/1000. See, Testimony of Kenny S. Crump, Ph.D., AIA/NA Advance Testimony, Vol. I.

Were OSHA to adopt supplemental measures that would provide an additional margin of health protection, residual worker risks would of course be even lower. Programs to reduce substantially or eliminate smoking among asbestos workers and/or to encourage or mandate respirator use even when the PEL has been achieved through engineering and work practice controls would reduce risks for all workers to well below 1/10,000.

Accordingly, a revised OSHA asbestos standard as proposed by AIA/NA could represent the most protective standard ever issued by the agency for exposure to any carcinogen. AIA/NA urges OSHA to consider carefully these and other supplemental measures in order to develop a feasible standard that will more than adequately protect worker health.

ASBESTOS INFORMATION
ASSOCIATION/NORTH AMERICA

May 25, 1984