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ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF TOXIC SUBSTANCES

DOCKET NO. OPTS-211012

COMMENTS

OF THE

ALLIANCE FOR SAFE BUILDINGS

ON

EPA'S RESPONSE TO CITIZENS'

PETITION ON ASBESTOS IN BUILDINGS

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VI. FUTURE EPA ACTION ON ASBESTOS IN SCHOOLS AND OTHER BUILDINGS.

AFSB commends the Agency for focusing first on the issue of asbestos in schools. Schools are unique among buildings in their density of population, their potential for damage to some asbestos products and our country's proper special concern for the health of children. Nonetheless, EPA should remember that any program adopted for schools will serve as a possible model for later action in other buildings, and the Agency should avoid any approach to schools that would be impracticable if expanded. As for non-school buildings, the Agency needs to develop much more data and information before going forward. As demonstrated above, however, available data show asbestos in schools seldom, if ever, presents a significant or unreasonable risk.

AFSB in this section proposes procedures for categorizing asbestos-containing materials, for determining whether action is necessary, for determining what action should be taken when necessary and for ensuring that necessary action is conducted safely and effectively.

There is now a pressing need for EPA to revise its technical assistance and guidance program to correct the misimpressions that its past action have created. Clearer and more accurate guidance is needed. Because of the current fervor which has lead to unnecessary and improperly

conducted removals, EPA should consider urging a moratorium on such action until further detailed guidance can be formulated. Once this situation is corrected, EPA can then turn to a revised regulatory approach, which is especially necessary to deal with controlling exposures during removal operations. At the same time, the Agency should greatly expand its research program to provide greater insight into the problem and appropriate solutions for both schools and other buildings.

A. EPA Should Categorize the Most Common Asbestos-Containing Materials Found in Schools.

As a first step toward modifying its present guidance, EPA should generally catalogue the kinds of asbestos-containing materials normally found in school buildings and their fiber release potential. This information can be gathered from the work of the Royal Commission and from EPA's own extensive technical assistance progam, regional coordinators and other sources. The object of such an effort would be to help focus the attention of the local school administrators on those classes of asbestos-containing materials most likely to release fibers. Presently, local schools too often assume that all asbestos-containing materials are "friable" and release significant amounts of asbestos fiber.

Again, the Royal Commission's work is a useful starting point. The Commission reviewed the nature of asbestos-containing products used in buildings, and placed them into

three categories: (1) asbestos-containing products used or applied in a liquid state; (2) hard products in which fibers are firmly embedded in a solid material; and (3) "friable" materials.142/ Although EPA regularly talks of "friable material," that term has never been adequately defined. It is our impression that parents, teachers and local school administrators do not sufficiently understand the concept of "friability" and therefore improperly equate all asbestos-containing materials with friable materials.

In his 1980 study, Dr. Nicholson emphasized the distinctions between the fluffy dry asbestos ceiling materials which he said were usually friable and the cementitious material applied in a slurry:

> The condition of the sprayed surfaces varies widely; in some instances they are intact and present no current hazard of asbestos contamination. . . . In general, cementitious asbestos materials were more likely to be intact and to present less risk of asbestos contamination than loosely compacted fibrous materials.143/

Similarly, John F. Cesario, Manager of the New York City Board of Education Asbestos Task Force, emphasized that

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142/ Royal Commission at 549.

143/ W. J. Nicholson, et al., "Control of Sprayed Asbestos Surfaces in School Buildings: A Feasibility Study," (1980) at p. 65.

"only the soft easily crushed materials should be considered for appropriate abatement."144/

EPA needs to emphasize its 1979 estimate that 85 to 92% of asbestos "end-product uses have effectively immobilized the asbestos fibers by mixing them into a strong binding material; e.g., cement."145/ We have heard of numerous examples of very hard, undamaged asbestos products not likely to release fibers being removed because of this lack of knowledge.146/ Such removals, as noted in Part IV above, often create contamination and risk, especially to workers.

With regard to the first category, "asbestos-containing products used or applied in a liquid state," the Royal Commission noted that:

> [t]he release of asbestos fibres at any time from such products is unlikely, because the fibres are combined with and held down by a liquid. Examples include asbestos-containing paints and asbestos asphalt roofing compounds. Once asbestos fibres have become impregnated with liquids such as paint or asphalt, it is very unlikely that they can become airborne again.147/

144/ Testimony of John F. Cesario at Boston Hearing (June 28, 1984) at 5. Mr. Cesario's testimony is especially important in light of his extensive experience with asbestos in schools and removal operations. New York City's active participation in these programs may well provide the largest body of experience now available, and the country as a whole should build on this knowledge.

145/ 1979 Guidance Document Part 2 at I-1-2.

146/ See Testimony of Robert N. Sawyer, M.D., at Boston Hearing (June 28, 1984).

147/ Royal Commission at 549.

Acoustical ceiling plaster, spray applied in liquid form, may be another example of an application method that produces little fiber release today.

The second category described by the Royal Commission, "hard products," likewise presents little exposure potential during normal use. According to the Commission, examples of such materials include "floor tiles, asbestos-cement products, hard ceiling tiles, drywall taping and joining compounds, and impregnated paper and textile products."[148/] The Commission noted that asbestos-impregnated paper products "were for the most part used for pipe and boiler insulation," an important factor that EPA should emphasize. While these "hard products" present little contamination potential in normal use, fibers can be released during insulation, renovation or removal, from actions such as sanding, grinding or cutting.[149/] Such products are good candidates for special maintenance programs and rarely, if ever, need to be removed.

The final category, consisting of materials sometimes called "friable," includes asbestos-containing sprayed insulation and pipe and boiler insulation.[150/] Because of

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148/ Id.

149/ Id.

150/ As noted above, local misunderstanding of the term "friable" has led to unnecessary and hazardous removals. It is therefore essential that EPA clarify the term and adopt an objective, scientifically rigorous definition of friable

(Footnote 150 continued on next page.)

their perceived fiber release potential, these products were discussed at length by the Royal Commission.[151] The use of sprayed asbestos materials was banned by EPA in 1973. Mostly used in fireproofing, but also employed in acoustical and decorative ceilings, asbestos-containing materials were applied by either a wet or dry process.[152] On these mixtures, asbestos was often mixed with other fibers and binders, such as cement or gypsum and water, and then sprayed onto surfaces and buildings. The Royal Commission noted that "the resulting product is relatively hard and dense." In contrast, the dry mixture was applied through a nozzle and wetted with a water spray as it left the nozzle, resulting "in a material with much lower density in place and with greater thickness than the wet process material, thus making fibre release more likely."[153]

Mr. Cesario of the New York City Board of Education confirmed the Commission's analysis. He noted that "hard asbestos-containing materials such as cement-asbestos board 'transite'; vinyl-asbestos tiles, etc. should not be removed from buildings just because they contain asbestos. They are

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(Footnote 150 continue from previous page.)

for use by local school administrators. Since samples of school materials will have to be tested scientifically for asbestos content, they could also be tested for friability at that time.

151/ Id. at 550-57.

152/ Id. at 550.

153/ Id. at 550-51.

not harmful unless cut or drilled into [without proper precautions]."154/ He also stressed that "asbestos-containing pipe, boiler and duct insulation, which are well wrapped in protective coverings and which show no signs of damage, should be left undisturbed."155/

The sprayed insulation, which can be friable, should be a focus of EPA's action. Since such materials will have been in place for over ten years and often longer, the absence of visible damage or visible release of fibers, as noted by the Royal Commission, suggests that maintenance of even friable insulation often will be satisfactory to reduce contamination and exposure. In most cases, undamaged material poses no problem and can be watched through special maintenance programs.

The Royal Commission discussed pipe and boiler insulation, which includes "preformed thermal insulation sections or slabs, asbestos-cement compounds, corrugated asbestos paper, rope lagging, and asbestos tape," in more detail. These preformed materials were used in a variety of applications. In many buildings, non-asbestos containing materials were used for the straight portions of pipes and boilers, even when irregular fittings such as elbows, T-connections

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154/ Cesario testimony at 5.

155/ Id. at 6.

and valves used asbestos-containing materials.[156] Thus, in some situations, "the asbestos products used in irregular fittings may occur much more frequently and thus appear in buildings that use non-asbestos insulation for all other purposes."[157] EPA guidance documents should recognize, therefore, that the finding of asbestos-containing materials around, for example, a valve does not mean the entire pipe insulation is made of asbestos-bearing products. Otherwise, non-asbestos insulation may be needlessly removed.

EPA should build on the Royal Commission's discussion and develop the information necessary to categorize applications in terms of fiber release potential. Thus, the Agency should note that thermal insulation generally does not pose a contamination risk if undamaged, and, even when damaged, generally presents only a localized contamination risk. Ceiling treatments should also be investigated, and EPA must consider the differences among the many types of ceiling materials to evaluate their relative potential for fiber release. Structural steel fireproofing is generally inaccessible and therefore will seldom present a significant risk of fiber release. In addition to categorizing these applications for fiber release potential, EPA should also consider

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156/ Id. at 554-55.

157/ Id.

the different types of response action appropriate to each. The selection of the best control technique will depend critically on the type of application in question and this too requires further Agency investigaton and research.

In addition to categorizing the building materials in classes and fiber-release potential as indicated above, understanding the way in which such materials are used within the building will also often be helpful. For example, student activity areas clearly present different circumstances than do non-student areas such as boiler rooms or storage areas. Cafeterias, auditoriums and gymnasiums often present circumstances that differ from classrooms or stairwells. These differences should be noted and reflected in new EPA guidance.

B. Procedures for Determining Whether Corrective Action Is Necessary.

As EPA has already recognized, the presence of asbestos in buildings can pose complex issues, such that case-by-case evaluation is required.[158/] Following material categorization, the next step is to determine the need for action on those categories of materials that may sometimes present a hazard. This involves a threshold determination of building

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158/ 47 Fed. Reg. at 23361.

design and use, types of materials present, and, most critically, whether the material is or will probably emit unacceptable amounts of asbestos. The failure to provide federal guidance for this determination has been a major shortcoming in EPA's program to date.

Throughout this section we assume the inspection and analyses will be performed by adequately trained personnel and the Agency should insure that such experts are trained. Dr. Robert N. Sawyer has emphasized that these inspections must be "conducted by trained individuals" to avoid "unnecessary and unwarranted asbestos exposures" from needless removal operations.159/

While the key factor is the condition of the products containing asbestos, any qualified inspectors would also consider the type of material, its use, its location and other factors before acting.

Once the type of application and its location have been determined, the next important step is to inspect the material

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159/ Sawyer testimony at 1, 9.

for the extent of damage and evidence of unreasonable risk. Simple visual inspection will be adequate in many cases.160/

Recent testimony presented to EPA confirms that visual inspection should be a primary tool in this initial evaluation. For example, Bert Price, a senior consultant for National Economic Research Associates, recommended that EPA focus corrective action on "situations where contamination is obvious, that is where asbestos materials are damaged and flaking . . . ."161/

If the materials are undamaged and not visibly emitting fibers, samples should be taken for laboratory analysis to determine whether the material is, in fact, asbestos. Use of standardized laboratory procedures adopted by the Agency would facilitate this process.162/ The Agency should also

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160/ The Senate endorsed visual inspections in its recent amendment to the 1980 Asbestos School Hazard Detection and Control Act, by requiring the identification of:

> situations in which there is a substantial quantity of dry loose asbestos-containing material or asbestos-containing material is substantially deteriorated or damaged, and there is asbestos-containing material in an air plenum or in a high traffic area, confined space or within easy reach of a passerby.

S. 1285, 98th Cong., 2d Sess., Sec. 505(c)(2)(B)(ii).

161/ See Transcript of May 7, 1984 Hearing at 123. See also id. at 98 (testimony of Mark Durhan, Manager, Industrial Hygiene Dept., Galson Technical Services).

162/ This step parallels EPA's present sampling procedures. See 47 Fed. Reg. 23360 (1982).

consider the need to establish criteria and standards for adequate laboratory analyses.[163]

Where the material turns out to be asbestos, more detailed visual inspection is needed. The Royal Commission summarized a series of factors to be considered in this process:[164]

> (i) Condition of material: If material is deteriorating, coming loose, or if pieces are falling off, the possibility of fibre release is increased.
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> (ii) Water damage: If water is leaking onto the material, it can cause rapid deterioration leading to fibre release.
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> (iii) Exposed surface area: The greater the exposed surface area of the material, the greater the likelihood that any released fibres will reach people working nearby. While a suspended ceiling may cause material to be classified as non-exposed, it should be appreciated that maintenance workers above the suspended ceiling are not protected by the enclosure.
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> (iv) Accessibility: If the material can be reached by workers or occupants, it is potentially subject to accidental or intentional damage which may release fibres.
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> (v) Activity and movement: Air movement or building vibration can cause fibre release, while the movement of people or vehicles on the floor can stir up fibres

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163/ False positive findings of asbestos are a potentially serious problem. We have heard of several examples where inadequate laboratory work has resulted in identification of asbestos when competent laboratories correctly concluded that non-asbestos materials were actually present.

164/ Royal Commission at 600-01.

> that have settled. Cleaning by dry methods causes particularly high airborne fibre levels.
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> (vi) Air plenum or direct air stream: If friable material is enclosed within an air plenum, any fibre release which may occur is more likely to be distributed throughout the building than if the material is not enclosed within the ventilating system.
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> (vii) Friability: The more friable the material, the greater the potential for asbestos fibre release. Some wet-applied asbestos-containing materials can be quite hard and release very few fibres under most conditions.
>
> (viii) Asbestos content: The higher the asbestos content in the material, the greater the number of asbestos fibres released under any given condition.

While these factors cannot mechanistically dictate appropriate action, they form the framework for the exercise of qualified judgment.165/

EPA needs to help develop a trained group of asbestos inspectors.166/ The source of such inspectors is unclear, but should include individuals with some building inspection

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165/ EPA should devote research efforts to developing some sort of rating system to evaluate and quantitatively compare conditions in schools. Such a system, if properly validated by air sampling could become a useful tool for decisionmaking, both for setting priorities and for putting particular sites into perspective. While such a rating system is an important consideration, equally important is that the analysis be conducted by experienced, trained personnel.

166/ Necessary training for asbestos inspection is very simple (a one or two-day course is adequate) and should be a prerequisite to conducting such an important inspection. Id. at 606.

background, such as architects, engineers or building sciences expertise.[167/]

These inspectors should at least have some professional credentials or work under the direct supervision of a registered building professional such as an engineer or architect. In addition, this cadre of trained inspectors should be independent and not affiliated with companies who perform abatement work. Today, inspections and recommendations are being made by individuals who have a stake in doing the actual removal work.[168/]

EPA could also supply a badly needed service by providing the expertise and funds for a greatly expanded educational program consisting of one-to-three day seminars in major metropolitan areas across the country. Inspectors should be trained to do more than simply identify friable asbestos-containing materials, but should also be trained to categorize the materials in a matrix reflecting the visual inspection factors identified by the Royal Commission and others.[169/]

In addition to basic training, EPA should support a series of regular state-of-the-art, one-day seminars to exchange experience and information.

167/ See Comments of National Institute of Building Sciences, Doc. No. OPTS-211012 (1984) at 12.

168/ See Sawyer testimony at 8.

169/ Id. at 12.

In many cases, where detailed visual inspection by trained and competent evaluators indicates some corrective action is necessary, air sampling should be encouraged before removal is undertaken. Given the certain release of fibers and potential for both worker exposure and increased building contamination that accompanies any removal job,[170/] well-designed air sampling during periods of occupancy and use should be required before widespread removal is planned. Only this air monitoring can determine the degree of actual exposure faced by building occupants. While such sampling has been criticized for only providing a one-time "picture" of conditions without predicting future conditions, it is still essential to evaluate the presence of "unreasonable risk." It thus provides an important complement to other tools for evaluating site-specific conditions. Of course, in those frequent cases where simple patching and minor repair will seal off fiber sources, air sampling will normally be unnecessary.

By developing rules for the inspection and sampling described above, EPA can enable affected parties to determine the magnitude of the risk posed by specific conditions. At that time, it will be possible to determine whether corrective action is necessary.

170/ See pp. 49-51, supra.

C. Procedures for Determining What Type of Corrective Action Should Be Taken.

Once EPA determines that some corrective action is necessary in a given school, the next step is to determine what form that corrective action should take. While there is an inclination for schools to insist upon total removal in all cases, a variety of corrective actions are available, and, as demonstrated in Part IV above, overuse of removal is often dangerous.

The easiest corrective action, which will be appropriate in many cases where damage to asbestos-containing materials is not extreme, is simple repair accompanied by management and custodial control. The Royal Commission stressed that "[m]anagement and custodial control can best protect workers and building occupants from elevated fibre exposures if appropriate procedures are carefully followed."171/ It is incumbent upon EPA, therefore, to adopt recommended procedures for such special management and custodial control of areas containing asbestos and to educate the relevant personnel in their use.

Custodial management can involve a number of commonsense steps, depending in part on specific site conditions. In general, it involves care in taking any actions around

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171/ Royal Commission at 609.

asbestos-containing materials, to avoid damage and subsequent possible fiber release. Such management also must involve periodic checking of conditions to ensure that no substantial degradation has occurred. Use of wet-cleaning methods is another technique that will help control fibre levels. Building workmen should be informed of the location of asbestos-containing materials so that they can avoid inadvertent damage to these materials, especially when renovation work is planned.

EPA in the past has recognized the value of this approach. The Agency has thus noted that:

> Many of the friable asbestos-containing materials in schools do not require abatement or removal. A reasonable effort by school officials to manage the materials can prevent damage to or deterioration of them and the consequent release of asbestos and exposure of school users.

47 Fed. Reg. 23360 (1982). This recognition should carry over into the current proceeding and needs renewed emphasis.

Simple repair procedures, accompanied by special maintenance as described above, will often eliminate the potential of fiber release.[172/] In a number of instances, the only fiber release from asbestos-containing materials is the result of a small hole or other limited damage. In these cases, it makes no sense to take expensive and truly hazardous removal action on the entire area containing asbestos.

172/ See Sawyer testimony at 13.

Rather, the preferred response would be to repair the limited area of damage, which can enclose any loose asbestos and limit future releases.

Another set of control techniques is enclosure and encapsulation. In some cases, the materials containing asbestos will be found in a part of a building that can be easily closed off so that the materials are generally inaccessible. This enclosure procedure is effective in preventing further damage and also reduces exposure to any fibers that may be released from the material. For example, Mr. Cesario of the New York City Board of Education Asbestos Task Force noted that "cementitious types of materials, such as acoustic plaster, cause less contamination when structurally enclosed rather than removed."[173/] Encapsulation is another cost-effective alternative which has been used successfully in many applications, particularly with ceilings.

The final, and most extreme, alternative corrective action is total removal of the asbestos material. This is not only expensive, but, as noted above, it will normally increase airborne asbestos fibers. Such exposures to removal workmen always pose some real risk, particularly where untrained workers are used by contractors without careful asbestos-removal procedures.[174/] Consequently, it should be

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173/ Cesario testimony at 6.

174/ See also testimony of Robert Henkel, President, HRF Surface Cleaning, Inc., at Boston hearing (June 28, 1984).

a last resort, reserved for only the most hazardous situations and, even then, done very carefully.

Moreover, before encouraging removal, the Agency should also have a better understanding of available replacement materials. The Agency needs a comprehensive data base on potential substitute products, including their cost, their effectiveness in fireproofing and noise reduction and other aspects of their overall safety and desirability. Many of these materials will be fibrous themselves, and have not been studied as extensively as has asbestos.

With all these abatement alternatives available, EPA should develop new, non-regulatory guidelines for determining which should be chosen. The Agency has already correctly recognized that "[g]iven the diversity of building configuration and use, there is no one abatement option that minimizes exposure in all cases." 49 Fed. Reg. at 8452. Instead, the Agency stressed that "case-by-case abatement decisions [are] more protective of health because they [treat] each situation in the optimal way." Id. Similarly, the National Education Association has stressed that control decisions should be made "on a school-by-school basis, or more aptly on an area-by-area or room-by-room basis within a particular school."175/

175/ See Comments of National Education Association, Doc. No. OPTS-211012 (April 23, 1984) at 14.

Calls by some participants in these hearings for the Agency to specify national regulatory requirements for removal are both unnecessary and unrealistic. As EPA and NEA emphasized, the record reflects that the circumstances and condition of asbestos products in existing structures are much too diverse and complex for such simplistic rules. The only way we can imagine that such a rigid approach would be feasible would be to require air sampling and establish permissible exposure levels.

While we do not recommend such action at this time, we believe TSCA would require some such approach in order to establish a clear "unreasonable risk" justifying the countervailing risks to workers and general building contamination that would surely follow most removal projects. The Agency can avoid this legal dilemma by adopting more thoughtful and comprehensive inspection procedures, by vastly improving the available information base, by encouraging the development of a body of highly qualified, independent inspectors and by providing a continuing forum for information exchange.

Because such case-by-case decisions require guidance, EPA should use this proceeding to help define the circumstances in which each of the alternatives for corrective action are typically appropriate.

D. Procedures for Ensuring that Necessary Corrective Action Is Conducted Safely and Effectively.

As discussed above at pp. 43-49, past corrective actions, especially removal actions, have been conducted improperly and as a result have often been unsafe or ineffective or both. This is perhaps the most essential part of EPA's present proceeding, to ensure that response actions do not increase the risk from asbestos in schools and other buildings. Indeed, as indicated earlier, EPA should consider imposing a moratorium on any further removal actions, until safeguards can be developed and put in place.176/ There is widespread agreement that additional training of asbestos removal contractors and workers is essential to safe and effective abatement.177/

Much of the necessary information to ensure that corrective actions are safe and effective is provided by the pre-existing OSHA standard. Compliance with the current maximum average exposure limit of 2.0 fibers/cc is essential, and OSHA may lower this standard further in the near future. (See p. 3 above.) Similarly, OSHA requires use of wet

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176/ See Sawyer testimony at 14.

177/ See, e.g., Transcript of May 7, 1984 Hearing at 20-22 (testimony of William Borwegen, Director, Occupational Safety and Health, Service Employees International Union); 74-75 (testimony of Marshal Marcus, Consultant, Interscience Research, Inc.); and 115-16 (testimony of Dale Keyes on experience with certification in Maryland). See also NIBS comments, supra, n.167.

prequalification asbestos courses conducted by experienced professionals and at its completion all contractors must pass a test demonstrating their knowledge. In addition, the state administers training for workers and requires their registration before they may carry out removal projects.180/

EPA can draw on the experience of Alabama and other states in establishing its own standards for asbestos removal operations. This proceeding, and OSHA's parallel proceeding on its new standard, offer EPA ample opportunity to review the possible exposure controls and set new standards for any removal undertaken pursuant to EPA's program.

E. In Addition to These Procedures, EPA Should Undertake Further Research to Provide Future Improvements.

The existing data base, combined with additional information received through this proceeding, should provide EPA with enough knowledge to act now to begin to respond to the potential problem of asbestos in schools and other buildings. Additional research would assist all interested parties in determining whether action was necessary and what action should be taken.

This research should include at least: (1) the testing of other inspection procedures to improve their reliability;

180/ Testimony at the OSHA Public Hearing on the Proposed Asbestos Standard, by David L. Kirby, OSHA Doc. No. 93-6 (June 20, 1984) at 5-6.

(2) statistically designed monitoring tests to determine exposures in United States schools and other buildings; (3) tests of various control measures to determine their relative cost, effectiveness and safety; and (4) the development of improved abatement methods, including a specific special maintenance program.

One helpful step would be for EPA to conduct a symposium of experts on the risk and abatement procedures for asbestos in schools. By convening experts, EPA can best evaluate the state of current knowledge. Moreover, considerable information is now available from abatement projects already performed, both as to their effectiveness and their need. Much of this information is yet untapped, and EPA certainly would benefit from additional investigation of this experience.

In addition to embarking upon further research, local school officials need to be informed of the true nature of the risk presented and the steps that can be taken to respond when necessary. These officials, employee representatives, parents and the media are ill-equipped to deal with theoretical concepts of potential risk. Too many people believe that any exposure to asbestos poses a serious risk to their health. Dissemination of information about ambient exposures to risk and explanation of the risks from the low levels of asbestos in buildings is an important educational tool. Without such efforts by EPA, the rush to widespread removal

will continue and will paradoxically increase, rather than reduce risk.[181/] Lack of information or a climate of unwarranted fear has lead to unnecessary and precipitous action that is creating new risks from asbestos in buildings.

A series of seminars and training sessions can be used to help local officials learn better how to inspect their buildings and identify problems as well as how to know when to act and what actions to take. Through such a comprehensive information and training program, much better-reasoned and safer decisions can be made about asbestos in schools and other buildings.

F. Summary of Recommendations on the SEIU Petition.

AFSB generally supports the need for the type of standards requested in the SEIU petition. Much of the requested action can be accomplished without regulation, however, and the Agency must take care to ensure that any new requirements are authorized under TSCA and are truly necessary to respond to an unreasonable risk.

181/ Theoretical discussions that there is "no safe level of exposure to asbestos" may have some place in informed scientific and regulatory circles, but it can do nothing more than unnecessarily in cite people who do not understand the concept of risk assessment. Most people will be unaware that this is simply a "theoretical argument" and that there is no actual evidence of risk at very low levels. See Crump testimony at 12. As discussed above at pp. 23-26 there is doubt about the risk at low levels and, even assuming "no safe level," the relative risk from asbestos in schools is far less than the risk from many everyday activities.

With respect to SEIU's first request, for standards for determining when friable asbestos-containing materials are hazardous, AFSB supports the type of program discussed above. EPA can accomplish this through guidance that contains the following components:

-- Procedures for categorizing the types of applications of asbestos-containing materials and for distinguishing the less risky cementitious applications from those where asbestos is truly friable.

-- A rating system to evaluate the numerous site-specific factors that influence whether a hazard is present and to prioritize any response action.

-- Procedures for bulk sampling and air monitoring to enable better understanding of the true hazard at a given site.

-- Development of training programs to ensure that the above evaluations and inspections are conducted reliably.

With regard to SEIU's second request, that EPA establish requirements for inspection and abatement of friable asbestos-containing materials, AFSB believes that regulatory requirements are unnecessary, but that guidance should cure the identified need. In the case of schools, inspection is already required. Abatement action should not be compelled across-the-board, but must involve a site-specific evaluation. EPA should, however, provide directions for consideration of specific abatement procedures, including management, and should emphasize that removal should be the response of last resort. With respect to other buildings,

it is premature to consider any inspection or abatement requirements.

With regard to SEIU's third request, seeking standards for the performance of abatement activities, AFSB is totally supportive. The greatest hazard in the present system arises from unnecessary and improperly-performed abatement activities, especially removal operations. One answer would be to impose a moratorium on such actions, until standards are in place. In any event, it is crucial to the safety of workers and building occupants that EPA develop minimum standards and training programs to guide abatement activities.

VII. CONCLUSION

AFSB supports the present proceeding to re-evaluate EPA's program on asbestos in schools and will continue to cooperate with the Agency on this issue. The Agency's past technical assistance and guidance has not provided adequate assistance to local school administrators and has sometimes caused hasty action that has aggravated the problem.

In revising its program, it is essential that EPA recognize the very low level of exposures to asbestos-containing materials in schools. Because exposures are so low, risks are also extremely low and generally do not warrant further regulation.

Indeed, the greatest hazard at the present time is the panic reaction to remove asbestos. As currently conducted, these "response" actions are often creating a significant problem where none existed before. It is especially essential that EPA step in to correct this sutation, which it has in part created.

The legal framework for Agency regulation, TSCA, does not authorize broad-based federal action, because asbestos in most schools presents neither a significant nor an unreasonable risk. Even when some action is warranted, TSCA requires that the Agency select the least burdensome regulatory alternative.

In light of this data base and TSCA's regulatory requirements, EPA should now develop a selective program to respond

to asbestos in schools. Further guidance is necessary to categorize the materials that may require action, identify specific sites that may require action, and determine what response is appropriate. Regulation may also be required to ensure that any such response is performed safely and effectively.

Once EPA corrects these problems in its asbestos in schools program, it can begin to study asbestos in other buildings. The latter problem is much more complex, however, and the Agency's first priority should be resolution of the controversy over asbestos in schools.