SFA BILL ANALYSIS

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Senate Bill 908 (Substitute S-3 as passed by the Senate)
Sponsor: Senator John J. H. Schwarz, M.D.
Committee: Education and Mental Health

Date Completed: 6-19-90

RATIONALE

Asbestos is a group of naturally occurring minerals that separate into long, threadlike fibers that do not burn, do not conduct heat or electricity, resist chemicals, and do not degrade by natural processes. Because of these characteristics, asbestos has been used in a number of commercial and industrial applications, including roofing and flooring products; pipe insulation; patching and taping compounds; reinforcing material in cement, pipes, and coating material; protective clothing; fireproof materials; and, electrical insulation. The material also had been used in schools as well as other public and commercial buildings, but concerns emerged over the health risks associated with exposure to asbestos. If asbestos is not bound in cement, plastic, resin, or a stable material, it can flake and powder, which releases microscopic fibers into the air. These fibers are capable of penetrating the respiratory tract and cannot easily be ejected by the defense mechanisms in the lungs. The fibers then can scar the lung tissue and can cause cancer. Because of the potential risk of asbestos to the public health, the Federal government in the 1970s banned most uses of asbestos in buildings. In 1982, the U.S. Environmental Protection Agency (EPA) ordered the inspection of primary and secondary school buildings for occurrences of friable or soft asbestos that easily could be crumbled by hand. There was little compliance, however, because standards were not set for evaluating or abating asbestos hazards. In response, Congress passed in 1986 the Asbestos Hazard Emergency Response Act (AHERA), which substantially increased regulation of asbestos in primary and secondary public and private schools. Rules promulgated by the EPA under AHERA require local school districts to implement asbestos abatement programs, which include the periodic inspection of all school buildings for asbestos; the development of management plans for maintenance of records on abatement activities; and, the implementation of appropriate response actions that may involve the removal, encapsulation, enclosure, or repair of areas containing asbestos. Some people are concerned that EPA's demand for inspection and maintenance programs in schools, in addition to emotion and fear on the part of parents and school personnel as to the potential health hazard posed by asbestos, has resulted in school officials undertaking unnecessary and costly projects to remove asbestos from their school buildings when removal of asbestos may not be warranted, in comparison to other alternatives that are available to protect the health of school children and personnel.

CONTENT

The bill would create a new act to regulate levels of asbestos and "asbestos containing material" in educational facilities by doing the following:

- **Specifying methods for the measurement of asbestos levels in the manners prescribed by the U.S. Occupational Safety and Health Administration (OSHA) and the EPA.**
- **Prohibiting the removal of asbestos or asbestos containing material from public or nonpublic elementary and secondary educational facilities, except under certain circumstances.**

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- -- **Permitting the removal of asbestos or asbestos containing material that was incidental to normal maintenance or repair.**
- -- **Requiring educational facilities to comply with certain Federal standards regarding the implementation of "operations and maintenance plans" for public and private educational facilities that were found to contain asbestos or asbestos containing material.**

("Asbestos" would mean a group of naturally occurring minerals that separated into fibers, including chrysotile, amosite, crocidolite, asbestiform anthophyllite, asbestiform tremolite, and asbestiform actinolite.)

Measurement of Asbestos Levels

The measurement of asbestos levels would have to be made by either or both of the following methods:

- -- Optical phase contrast microscopy in the manner described in the measurement protocol provided in the Federal Code by OSHA.
- -- Transmission electron microscopy in the manner described in the measurement protocol provided in the Federal Code by the EPA, but recording only those fibers that were greater than five microns in length.

The bill specifies that if a question arose as to the presence of fibers that may not be asbestos, a measurement made by transmission electron microscopy would have to be considered controlling.

Asbestos Removal

Except as provided in the bill, asbestos or asbestos containing material (any material or product containing 1% or more asbestos) could not be removed from an educational facility (a building owned, leased, or under the control of a public or nonpublic K-6, K-8, or K-12 school system) unless one or more of the following circumstances existed:

- -- The removal was required under the Federal Clean Air Act due to the breaking up of asbestos or asbestos containing material during renovation or demolition.
- -- The removal was required under AHERA under conditions where asbestos or asbestos containing material was significantly damaged friable surface asbestos containing material, where there was significantly damaged thermal insulation found to have asbestos containing material, or where there was significantly damaged friable miscellaneous asbestos containing material for which enclosure, encapsulation, or other response actions described in the Federal Code by the EPA were considered to be insufficient to protect human health and the environment. ("Friable" would mean, when referring to asbestos containing material, material that by hand pressure could be crumbled, pulverized, or reduced to powder when dry.)
- -- The exposure level of asbestos fibers that were five microns or longer in length in an educational facility exceeded .05 fiber per cubic centimeter of air calculated as an eight-hour weighted average during periods of normal building occupancy as determined by the testing methods described in the bill and conducted at least six months after the implementation of an operations and maintenance plan.
- -- The cost of an operations and maintenance plan exceeded the cost of removal and removal complied with standards as mandated under AHERA. ("Cost" would mean the discounted present value of all anticipated future expenditures associated with a course of action in an area where asbestos removal was being requested.)

A licensed asbestos abatement contractor or a person exempt from licensure under the Asbestos Abatement Contractors Licensing Act could remove asbestos or asbestos containing material that was incidental to normal maintenance or repair.

Educational facilities would have to comply with the standards contained in AHERA regarding the implementation of "operations and maintenance plans" for educational facilities found to contain asbestos or asbestos containing material. ("Operations and maintenance plan"

would mean a program of work practices to maintain asbestos or friable asbestos containing material in good condition, to ensure the cleanup of asbestos or friable asbestos containing material previously released, and to prevent further release of asbestos or asbestos containing material by minimizing and controlling damage or disturbance of asbestos or asbestos containing material.)

FISCAL IMPACT

The bill would have no fiscal impact on the State, and would have an indeterminate fiscal impact on local school districts.

ARGUMENTS

Supporting Argument

The bill would aid school officials who are faced with the problem of how to deal with asbestos in school buildings. Many actions taken by school districts to address the asbestos questions have been based on emotion and fear, rather than on sound, scientific judgments. Some scientists believe that 95% of the asbestos used in school buildings is chrysotile in nature, which is a variety of asbestos fiber that is not considered to be dangerous (because chrysotile asbestos is made up of curly fibers that are soluble and do not lodge in the lungs to cause cancer or other ailments). Furthermore, the health risks in schools containing asbestos reportedly are 400 times less than the health risks associated with exposure to smoke or radon. Even the EPA has conceded that asbestos removal may not be the best course of action since the removal process can create so much asbestos-laden dust that may be more harmful than asbestos left in place and sealed off. Moreover, the EPA has initiated a comprehensive asbestos research study to improve the characterization of asbestos potency in buildings and to examine research on fiber potency. Given these factors, many questions still remain about asbestos and the best policy to follow in addressing the issue of asbestos in school buildings. What is needed is a reasoned approach, and not one of alarm, in contending with the asbestos situation in Michigan schools.

Supporting Argument

The removal of asbestos from school buildings is an expensive procedure. The overall cost for public schools in the State is estimated at more than $1 billion. The Michigan Catholic Conference has estimated that it would cost $75 million to remove asbestos from the 370 parochial schools in the State. Removal costs for public schools in Oakland County alone are estimated at $100 million. Oakland Intermediate School District officials also figure that between 1987 and 1997, 10% of the county's education dollars will be spent trying to deal with the asbestos problem. In addition, asbestos removal could cost Grand Rapids and Lansing school districts each more than $25 million and Flint schools more than $20 million. Having to bear these cleanup costs only would aggravate the serious financial problems facing many Michigan public and private schools. While there should be sensitivity to the health and safety concerns about asbestos, schools should not be burdened with the costs of asbestos removal when it is not necessary. To prohibit removal of asbestos when such action is not needed could result in significant financial savings to schools.

Opposing Argument

The bill could conflict with Federal law that allows a school district to permit the removal of asbestos, if that is the desired response. The language in AHERA states: "Nothing in this section shall be construed to prohibit removal of asbestos containing building materials from a school building at any time, should removal be the preferred response action of the local education agency". Furthermore, the bill would limit the response actions that are available to local districts and could result in increased costs to schools. Exposure to airborne asbestos has been associated with debilitating lung disease; cancer of the chest and abdominal lining; as well as cancers of the lung, esophagus, stomach, colon, and other organs. Children and young adults who have been exposed to higher levels of asbestos in the air, especially when friable asbestos materials in buildings have been damaged, have a greater chance of developing some of these diseases because of their longer life spans. For these reasons, school officials, staff, parents, and the general public are concerned about the presence in schools of asbestos, especially when it can be damaged easily. Thus, some school officials are electing to remove asbestos instead of taking other actions, such as encapsulation, in order to allay fears of parents and school staff. In other instances, some school officials feel that it is more cost effective to remove the asbestos in the first place than to encapsulate it and then have to spend money to have the asbestos removed as a result

of a renovation project. While it is agreed that tax dollars should not be spent on unnecessary removal projects, the course of action to take in dealing with asbestos in school buildings should be left to school officials. The bill would take away any discretion school officials now have.

Opposing Argument

Under the bill, asbestos or asbestos containing material could not be removed from a school building unless certain circumstances existed, such as the exposure level in an educational facility of asbestos fibers that were at least five microns in length exceeding .05 fiber per cubic centimeter of air. The clearance level of .05 fiber per cubic centimeter also is the clearance level required by the Department of Public Health (DPH) at the completion of an asbestos abatement project. Michigan's clearance level is one of the highest allowable levels in the country. A proposed occupational health standard for asbestos would lower Michigan's project clearance level to .01 fiber per cubic centimeter. This level would be consistent with the current clearance air requirements mandated in public and private schools covered by AHERA. Currently, if a public or private K-12 school in Michigan conducted an asbestos abatement project and failed to meet the .01 fiber per cubic centimeter clearance level, the work area would remain "regulated" until clearance could be achieved. According to the DPH, "regulated" means that no one may enter a work area unless he or she is equipped with respiratory protection and full-bodied protective clothing. If the bill were enacted, it is not clear how the State could allow children to occupy buildings with asbestos levels that were above Federal clearance levels.

Another disparity between Federal air clearance requirements and those proposed in the bill involves the bill's requirement that transmission electron microscopy be used to analyze all background air samples that exceeded .05 fiber per cubic centimeter of air to confirm whether the fibers observed actually were asbestos. The bill would require that the protocol specified by AHERA be followed, except that only fibers exceeding five microns in length would be counted. AHERA protocol for clearance air sampling using transmission electron microscopy analysis requires that all fibers longer than .5 micron with a length-to-width ratio of 5:1 or greater be counted. Once again, this could create a situation in which an asbestos abatement project could not pass a Federal clearance test, but Michigan would allow asbestos background concentrations in school buildings to exceed these clearance requirements.

Opposing Argument

It is not clear why the State would require a school to have an operations and maintenance plan in place for six months before allowing a district to use background air sampling levels as justification for removing asbestos. The result of such a requirement could be to expose schools to greater potential liability. Furthermore, the bill is not explicit as to which State department or agency would be responsible for enforcing the bill and what the penalties for violations would be.

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