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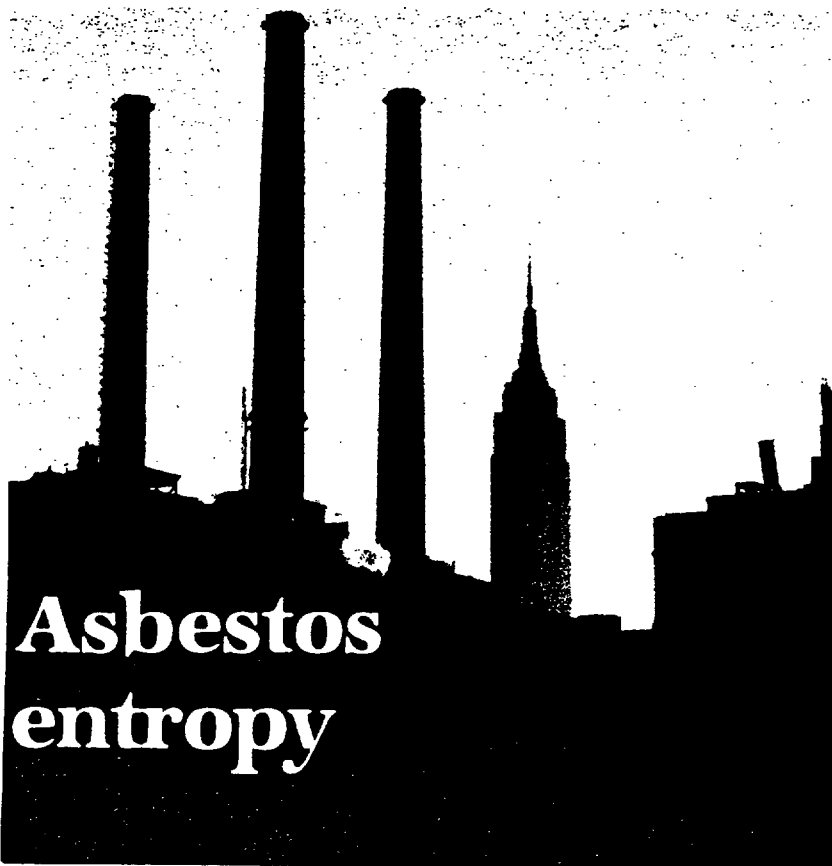
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Asbestos entropy

by Barbara Pfeffer Billauer and Joseph J. Giamboi

The recent and continuing onslaught of regulations governing asbestos abatement work in the City and State of New York has gone largely unreported in the media. What has captured media attention, however, has been catastrophic incidents and debacles immediately traceable to lack of foresight in the issuance of these regulations. Duplication, redundancy and lack of coordination have marked the efforts of the state legislature, attorney general, and the federal government as well as the New York City Council, all of whom have jumped on the asbestos alarm bandwagon.

The result of these legislative efforts is not necessarily a more protected public, but a replication of governmental efforts resulting in impositions of higher costs on real estate owners and their tenants. Also, it is likely that a greater hazard has been created with every unnecessary removal and re-insulation with artificial materials generated directly or indirectly by these regulations.

This rush to regulate without underlying up-to-date scientific support is a misuse of taxpayers' money, when these monies could well be

channeled into more productive ends such as research on whether low level exposure to asbestos is really dangerous to a person's health.

Asbestos—Its uses and dangers
Asbestos is nonflammable, mechanically strong, resistant to chemicals, and virtually indestructible. Until 1972, these properties made asbestos the material of choice as fire-proofing and as a thermal and acoustical insulant.

Epidemiological studies demonstrated that exposure to high occupational levels of airborne asbestos increased the risk of asbestosis, mesothelioma and, in the smoker, lung cancer. These studies focused, however, on data from people exposed to high levels of asbestos fibers as part of their work; they did not study the effects of the ordinary building exposure levels on building occupants. Indeed, attempts at measuring current building levels in well-maintained buildings in New York City have been undertaken fairly recently.

Those measurements which have been done in well-maintained buildings indicate that levels of asbestos

are often less than that found in air outside the buildings and usually thousands of times less than that found in the workplaces which were the sources of the original studies.

Nevertheless, regulations governing exposure to in-place asbestos-containing materials in commercial and residential buildings appear to be the current focus for all levels of government. The lack of any scientific study establishing danger to people living in buildings where asbestos-containing materials were used in construction does not deter government officials. (In fact, those few studies which have looked at low level exposures demonstrate no increased likelihood of disease.) Only "anecdotal evidence" and isolated care reports are cited by the opponents of this proposition. When carefully considered these stories do not stand up to scrutiny.

Asbestos regulation

In 1972, the original workplace-based studies motivated the United States Environmental Protection Agency (EPA) and the United States Occupational Safety and Health Administration (OSHA) to promulgate regulations governing demolition, renovation, and construction sites where asbestos-containing material could become airborne as well as rules to protect employees working at these sites. Extensive as these federal regulations were, state legislators were not to be outdone. They seized upon the idea of regulating asbestos as a popular cause. Individual states passed their own statutes and promulgated their own regulations. The New York State Legislature joined other states in August of 1986.

In 1986, the state legislature directed the Commissioner of Labor to monitor and inspect safety procedures during asbestos projects, to issue licenses to asbestos abatement contractors and to certify supervisors and workers who will do the actual work. Additionally, the legislature directed the Commissioner of Health to publish rules regulating training programs which supervisors, workers and contractors must attend before they can be certified by the Commissioner of Labor. These rules were finalized and became fully effective in January of 1988.

Just prior to this, the New York City Council had passed Local Law

No. 76 of 1985. This ordinance requires that all "asbestos projects" be approved in advance by the City Commissioner of Buildings, and that the application for approval be accompanied by an asbestos inspection report which must be submitted to the Commissioner of the City Department of Environmental Protection. The Council charged the Commissioner of the City Department of Environmental Protection with the responsibility of issuing regulations regarding the certification of asbestos handlers, supervisors and inspectors. Further, the Commissioner was also required to certify training programs which would prepare people to take an examination for certification.

Since then, the Congress, pursuant to the Asbestos Hazards Emergency Response Act of 1986, has directed the EPA to prepare similar training and certification requirements for contractors and experts who will conduct asbestos abatement activities in schools across the country. These regulations took effect in October of 1987.

If these laws sound redundant, they are. Once all federal and state requirements are finally promulgated, local certifications of currently licensed inspectors and handlers may be preempted. Reflection of these laws causes one to wonder what it will cost us for the creation of new bureaucracy? Will additional hazards be created by unnecessary removal? Where will all the removed asbestos go? And, will the bureaucratic red tape generate an underground or black market industry for asbestos removal?

Results of government regulation

As a result of all these redundant regulations, there is a growing hysterical reaction to the disclosure that asbestos may be found in a building. Owners, lessees, and those who advise them are afraid of lawsuits and are prone to remove asbestos even in those circumstances when it may be unwise. Additionally, disclosure of the presence of asbestos has driven the prices of some buildings downward, while increasing maintenance costs. Finally, the excessive red tape imposed by the regulations discourages compliance with the law and compels people responsible for abatement to look to cheaper uncertified contractors, who may in fact create a greater health hazard by

using improper methods to abate the asbestos presence. The final promulgation of the New York State rules may cause real estate owners and those responsible for the removal of asbestos to drown in red tape.

Confusion reigns. As of this date, no law at any level requires removal of asbestos in a building unless it is to be demolished. In fact, it is not exactly clear what course or alternative is legally mandated once asbestos is found in a building. No standard exists at any level which gives precise directions and offers some degree of protection to real estate owners who turn to the various levels of government for guidance. By virtue of the structure of the New York City regulations, the decision is left, by default, in the hands of an "asbestos investigator" whose only qualifications may be completion of a city-certified training course and a rudimentary training in the sciences. Lack of insurance, guaranteed additional work and income, a poor understanding of direct, indirect and hidden costs involved, and a biased and limited understanding of the scientific literature have motivated these investigators to recommend removal when it is not at all necessary—and may, in fact, be imprudent.

What is clear is that conflicting regulations without clear-cut standards result in hysteria, haphazard procedures, and dangerous attempts to "cut corners." It also extinguishes the availability of insurance and allows the litigious among us to find new victims.

New horizons

The New York State Attorney General's regulations promulgated in August of 1986 are forerunners of what may come in the future. They require building owners who are in the process of converting their building from private ownership to condominium or cooperative ownership to fully disclose the presence of asbestos in a building. Initially (before it was judicially revoked as being beyond the authority of the attorney general), these regulations also required that the owner create an escrow account for pay for any asbestos abatement which might take place.

Lurking in the future is similar governmental regulation of all buildings. The City has directed the Commissioner of the Department of Environmental Protection to study public and commercial buildings to

determine if the presence of asbestos-containing material in these buildings requires special regulations. The federal government has directed the EPA to make the same inquiry. Finally, in April of 1987, Senator Stafford of Vermont introduced S.981 which would require regulation no matter what the studies show.

It is time for the federal government, the state and the city to pause and to call a halt to unnecessary and duplicative regulations. A critical evaluation of all these regulations is necessary and coordination is required. Moreover, a careful look at the validity of the alleged hazards of low level exposure, and the safety of asbestos substitutes must be undertaken before prudent rules can be enacted.

Excessive regulations increase the likelihood of people attempting to flaunt the rules. Moreover, it is quite clear that neither the federal, the city nor the state governments have made the commitment or have the resources to strictly enforce these regulations. Violations and dangerous attempts to bypass these rules which the current climate seems to encourage cannot be entirely monitored, even though the City Department of Environmental Protection and City sanitation workers have been on the lookout for such violations.

The federal government, the state and the city must defuse any potential hysteria that this legislation and regulation has caused. In particular, governmental agencies should avoid being stampeded into promulgating more unnecessary and potentially dangerous regulations governing public and commercial buildings where asbestos-containing material is found in good condition, but where no construction, renovation, or demolition work is being done. An up-to-date critical scientific analysis which objectively evaluates the evidence of whether exposure to in-place asbestos-containing material causes illness is required. ☐

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Q&A

OSHA statistics and the critical incident technique

Professional Safety is pleased to announce a new feature titled, "Q & A" that will appear in the magazine every other month. The questions and answers are chosen by Dr. George L. Head, CPCU, ARM, CSP, CLU, FIRM, vice president of the Insurance Institute of America and director of the ALCM program.

The sample questions and answers used in the column are taken from the Associate in Loss Control Management (ALCM) designation program. This month's question is from a December 1987 examination.

Dr. Head is a member of several professional and industry associations, including the Risk and Insurance Management Society, the Society of CPCU, the American Risk and Insurance Association, and the National Fire Protection Association. He is a Member of ASSE's Lower Delaware Valley Chapter.



This month's question explains how use of the critical incident technique for analyzing actual or potential accidents can provide information that supplements data from OSHA records of these occurrences.

Q: One of the challenges in improving the general level of workplace safety in industry has been to develop statistical measures which truly reflect the level of such safety. It has been suggested that computing work injury frequency and severity rates (even by the procedures prescribed by the federal Occupational Safety and Health Administration) does not provide an accurate measure of workplace safety in a particular organization. Further, some believe that appropriate use of critical incident techniques (also known as "critical incident review techniques") can reveal more reliable information about workplace safety than can accident frequency and severity rates.

- (a) Give three reasons why workplace injury frequency and severity rates computed according to OSHA procedures may not accurately reflect the

level of workplace safety in a particular organization.

- (b) Explain why critical incident techniques are likely to reveal more information about workplace safety in a particular organization than do work injury frequency and severity rates.

A: (a) A particular organization's OSHA accident frequency and severity rates may not properly reflect its actual level of workplace safety because:

First, OSHA procedures allow managers considerable discretion in classifying injuries (such as between total/partial and permanent/temporary);

second, the accuracy of OSHA severity rates are somewhat dependent upon the extent to which employees may be returned to light-duty work, less demanding than half their original responsibilities, to "improve" a particular organization's reported statistics;

third, OSHA rates do not show the dollar costs of workplace accidents, even though these dollars arguably are a given entity's best measure of workplace safety.

(Note: Other equally valid answers could be given.)

(b)(1) Proper use of critical incident techniques involves drawing upon a random sample of observers/workers from a particularly hazardous workplace environment and questioning them about accidents and/or incidents they have experienced or seen. Their responses can help categorize the causes of accidents, or the hazards of potential accidents, into groups which depict chains of accident causation germane for a particular organization. Accident prevention efforts then can be focused on breaking these specific chains.

(b)(2) Unlike OSHA records, the information generated by the proper use of critical incident techniques includes:

First, hazards that have not yet produced accidents (only incidents) but which still need to be controlled to enhance safety;

second, detailed chains of causation for specific occurrences;

third, as an implicit consequence, possible ways to prevent future accidents.