

OSBORN

Environmental Management

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With a continuing desire to provide current information on relevant areas within a building's environment, the Professional Members of BOMA/NY are using their individual skills to compile pertinent information for the Building Owner's and Manager's use and/or interest. This article is an overview of some relevant topics which can be expanded into "BOMA White Papers" in the months to come. Your input as to which areas should be expanded is requested. Requests for papers/articles on other professional related areas will also be gladly accepted.

With today's intense interest and public concern about the environment, the prudent building owners and managers should develop and institute a comprehensive management plan to deal with environmental issues in their facilities. If you have such a program in place, you may want to review its contents and update as necessary.

Some of the important issues which must be addressed in any environmental management plan are as follows:

1. Good Common Sense Approach
2. Legal Obligations and Advise
3. In Place Asbestos-Containing Materials
4. Indoor Air Quality
5. Ventilation Requirements
6. Backflow Prevention
7. Waste Management

A brief description of each of these issues follows:

Common Sense Approach

The last thing a building owner or manager should do is panic. Each concern should be dealt with in a logical, sincere manner. Remember, the complainant, (tenant or employee) has a real concern. Show them that you are interested in their concern and will take the proper steps necessary to deal with the issue.

Good environmental management requires a team effort. A successful program requires support from management, operations, maintenance and tenants. The key advisors should include consultants, with input from legal, medical and insurance sources.

Asbestos Management Plan

The following are some of the key elements of an asbestos management plan.

- Comprehensive inspection and identification of all asbestos-containing materials (ACMs)
- Written report outlining the findings and recommended corrective action for each area
- Protected estimate of cost for removal and replacement should owner wish to choose this option
- A management plan, which describes the owners policies concerning ACM
- An operations and maintenance plan which should outline work procedures to be employed by the building maintenance staff and outside contractors who work in the building
- General awareness training for key administrative staff and for all maintenance and security personnel
- Restricted Handler or Handler training and certification of employees who will be required to work with ACM
- Record-keeping
- Employee and tenant notifications
- Public Relations

The New York City Council is currently considering Intro., 453 which would require virtually every governmental, commercial and residential building in New York City to be inspected for asbestos over a "phase in" period. Although all of the above listed items will be required under the proposed law, *legal liability exposure dictates that you not wait until passage to apply common sense to management of asbestos in your buildings.*

Indoor Air Quality Updates

1990 has been a busy year for Indoor Air Quality (IAQ) awareness, research and policy development. Some of the years notable events and trends are presented below.

As of this writing, Congress has yet to enact the Indoor Air Quality Act of 1990. The bill would authorize \$48.5 million per year over five years for IAQ research, education and mitigation programs. The House and Senate each have their own versions of the bill (HR5155 and S657, respectively). Each version seems to be moving slowly and enactment may not occur this year. One point of debate appears to be which agency, EPA or OSHA, should have jurisdiction over workplace indoor air.

An important aspect of the bill is that it is intended to be for information and research and not a new regulatory authority. The trend is consistent with the current thinking within the scientific air quality research field. At the Fifth International Conference on Indoor Air Quality and Climate held in Toronto last summer, views were presented that air quality standards have been effective in reducing outdoor air pollution, but it does not seem that they will be effective in regulating indoor air. It was suggested that guideline values be developed for hazard assessment rather than standards.

Another important area of IAQ is product emissions testing and labeling for products which produce hazardous compounds (i.e., formaldehyde offgassing from wood products). The emphasis of testing has been on carpeting, office furniture, adhesives and coatings such as paints and wall paper. However, on November 18th, 1990 a new labeling standard will be required for arts and crafts materials to warn of potential health hazards associated with the use of the product. Emission factors and product labeling for many building materials should become more available in the future. Architects, building owners and managers are urged to establish screening programs for all products to be used within their buildings.

One of the major issues of the year has been related to Environmental Tobacco Smoke (ETS). In June of 1990 the EPA released for public comment, two draft reports that classify ETS as a known human carcinogen and recommend that building owners and managers develop a smoking policy that prohibits smoking indoors or confines smoking to enclosed, separately ventilated smoking rooms with direct external exhaust. Owners and managers should wait until an official, finalized policy document is issued this fall before considering a change in current policies.

Air quality concerns will increase during the 1990's. Building owners and managers should revise leases to include IAQ considerations, review HVAC system operations and review tenant area cleaning and extermination processes.

Ventilation Requirements

The American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) have recently changed the required outdoor air ventilation rates previously established in 1981. The ASHRAE Standard 62-1989 has increased the requirement for outdoor air from 5 cfm per person to 15 cfm per person.

In many cases Indoor Air Quality problems are the result of measures taken to reduce the energy consumption of a building. The reduction of outdoor air supplied to a system has been considered the

quickest and least expensive method of lowering the energy cost of a building. The reduction to the amount of outside air available to dilute the Carbon Dioxide produced by the occupants can lead to discomfort and severe health hazards. In the past, to further reduce energy costs, ASHRAE standards have allowed the use of filtration systems to enable clean air to be recirculated, reducing the amount of outdoor air required. However, this standard didn't take into account different systems – constant temperature/variable volume and constant volume/variable temperature. The new Standard now contains methods to supply cleaned, recirculated air to both variable volume (VAV) and constant volume systems. Changes in operation, indoor air contaminants or space requirements may require a reevaluation and upgrade of existing systems to meet these standards.

Legal Perspective

The growing number of successful lawsuits over personal injury and property damage caused by indoor pollution indicates that manufacturers, architects, contractors, landlords and tenants face substantial new liability exposure.

The theories of recovery which have been asserted include: negligence, breach of express or implied warranty (such as habitability or fitness for use). Other theories may include strict product liability, constructive eviction, fraud or misrepresentation, assault, infliction of emotional distress, fear of cancer or racketeering under RICO laws.

Federal legislation is expected to create a more comprehensive approach to dealing with indoor pollution problems.

Building owners and facilities managers should keep themselves informed of new legal and technological developments. Development of inexpensive, simple-to-administer, indoor air quality tests are now readily available and should be used so as to avoid risks of liability if problems affect health of building occupants.

Backflow Prevention

The New York City Department of Water Supply recently adopted the New York State Backflow Prevention Program and has created great controversy with the Real Estate community. While we all recognize that cross connections between potable and non-potable water sources can lead to various degrees of illness or death, the suddenness and severe interpretation of the program has set the engineering community at odds with the water department.

The water purveyor has the ultimate responsibility to assure potability and to protect the public from potential health hazards and therefore, must take the most conservative approach. Since the program addresses both existing and proposed buildings, inherent problems can develop in existing buildings which would not be a problem in proposed new buildings. The requirement for above grade installations of the RP type of backflow preventer, in addition to its pressure drop is one type of problem that requires study in existing installations. A qualified plumbing engineering consultant licensed in New York State should be retained to investigate, prepare the documents and file the required documentation with the City. This will

assure the building owner that the proper type of backflow preventers have been specified and that a comprehensive evaluation of the system effects have been considered.

Waste Management

On July 14th, 1989, Local Law 19, New York City's mandatory recycling law became effective. The law requires all residents in New York City to separate materials from their household trash for recycling. The sanitation department has designated glass, metal and plastic containers, aluminum foil and aluminum foil products, newspaper, corrugated cardboard and magazines to be separated and collected by either a mechanized or curbside program

In addition to the above, owners or managers of residential buildings with three or more units are required to:

- Notify tenants of the program requirements
- Provide storage space and appropriate containers for recyclables
- Place recyclables in appropriate collection locations

The law also includes enforcement policies with an associated fine schedule.

The results of the first year's efforts far exceed the mandated goal of 700 tons of waste to be recycled daily. The success of the program is attributed to the cooperative efforts and creative solutions between government agencies, citizen groups, and the private sector.

Notable examples include:

- Materials for the arts, a program which matches up waste materials with artists in need of such materials
- We Can, a city funded non-profit redemption center which employs homeless men and women
- Glassphalt, a road pavement material utilizing crushed recycled glass

Although the program is a success, the need for increased waste reduction is required. Consequently, as authorized by Local Law 19, the Department of Sanitation and the Department of Consumer Affairs have developed and are actively reviewing proposed amendments to establish minimum requirements for the recycling of solid waste collected by private carters. The requirements of these amendments will have a profound impact on commercial building owners and managers.

The proposed amendments define the owner, agents, net lessee and/or managers as "waste generators" and classifies their recycling requirements into three general categories:

- Restaurants and eating places
- Establishments which generate 50% construction waste
- All other generators of office waste products, such as high grade paper

The responsibilities of generators include:

- Either pre or post waste collection separation with a minimum of food separation from all other materials;
- Notification requirements to tenants including appropriate signage prominently displayed at principle entrances to the building
- Collection preparation requirements

The law also lists requirements for the waste carters and operators of waste transfer stations as well as a listing of inspection criteria and fines for non-compliance with the law.

Leasing Impact

The leasing impact on prospective tenants are not yet showing a consistent valuing for environmental abatement except on asbestos. Working with a number of clients who are engaged in an evaluation of different locations shows everything from knowledgeable regard to total disregard for general environmental management issues. Using the topic of asbestos as a guide, however, would indicate that these other topics will become major concerns. Remedial action is generally much slower paced than tenants developing awareness. Therefore, those owners who begin to address the issues now would seem to be making a sound preinvestment in their future.

Legal Perspective:

Although there is no legal requirement that tenants perform an environmental assessment before they sign a lease, it is foolish not to conduct one, especially if you are taking on a long-term commitment.

If tenants discover environmental impediments prior to signing the lease, a proviso can be added to the lease, providing that *the landlord* pay for addressing the environmental problems which were present before the lease was entered.

If the lease term begins and the tenant has failed to have an assessment done, the tenant will have difficulty demonstrating to a court that he has not been responsible for introducing the environmental problem.

To date, the only environmental risk which appears capable of being quantified accurately is asbestos abatement. However, it is clear that the most competent environmental consultants can afford an idea of costs for remediation of other problems such as lead paint and indoor air pollution.

Qualifying these risks is essential because, if the environmental remediation costs are too great, it may be impossible "to make the numbers work."