## Regulatory Trends

In the area of Indoor Air Pollution, as in many other areas of public policy controversy, the greatest problem facing industry may be regulation at the local level. The admonition to "think globally, act locally" has led grassroots groups to focus on local government. Their successes have created such a multitude of standards and laws that the expense of complying has become a major obstacle to business—especially businesses that have to function in many different communities.

Local governing bodies may be made up of sympathetic individuals that do not require "rigorous scientific proof" on which to base decisions. In these arenas, passionate speeches and anecdotal information may suffice. Or a simple fear of expensive litigation may be enough to cause elected officials to take the approach of "better safe than sorry."

Furthermore, many of the decisions being made may seem very simple, and not financially onerous when considered in a local context. For the small business that operates only in one community, the burden may in fact be insignificant. In other cases, it may be clear that local decisions have far reaching economic consequences, but it is often difficult for big business to get much sympathy at the local level. The community comes first.

## **GRASSROOTS GROUPS**

As journalists write stories on the subject of the health effects of indoor air pollution, thus increasing awareness of environmental illness/chemical sensitivity, there is a growing number of people who believe they are suffering from it.

These people think of themselves as being like the canaries that miners took below ground to provide a warning in case of dangerous levels of gas in the air. Unlike the canaries, however, these people will not just die quietly. Rather, there is a strong sense of commitment to educate others to the perceived dangers. As with virtually any group of people suffering from a common problem, the modern day approach is support groups and grassroots organizing.

Groups such as The Environmental Health Network (Marin City, California), The American Environmental Health Foundation, Inc. (Dallas, Texas), The National Foundation for the Chemically

Hypersensitive (currently in Wrightsville Beach, North Carolina, but relocating soon to Washington, D.C.), Human Ecology Action League (Atlanta, Georgia), and the National Center for Environmental Health Strategies (Voorhees, New Jersey) are all groups that have been set up to help victims of environmental illness.

These groups act as clearinghouses for information, as well as lobbyists for regulatory changes. For example, the National Foundation for the Chemically Hypersensitive describes itself as a volunteer organization devoted to:

- 1. Research;
- 2. Education;
- Dissemination of information;
- 4. Patient to doctor referrals;
- 5. Patient to attorney referrals and information;
- 6. Social Security Disability information;
- 7. Workers Compensation information;
- Advice and resource assistance for the chemically injured and their relatives;
- Network the patient for safe living, food, clothing referrals;
- 10. Assistance with low cost housing resources (HUD section 202 and section 8); and
- 11. Compiling thousands of case histories and developing epidemiological studies.

The significance of items #6 and #10 should be noted. Both the Social Security Administration and the department of Housing and Urban Development, as a result of lobbying by groups such as those listed above, have recognized the existence of environmental illness for the purposes of benefits and housing for the "environmentally disabled."

In addition to the successes at SSA and HUD, advocates for the environmentally ill have testified frequently on Capitol Hill regarding the Indoor Air Quality Act being considered by Congress. Several states have also addressed issues specifically affecting victims of environmental illness at the urging of these groups. For example: New Jersey, the home of the National Center for Environmental Health Strategies, and its very outspoken Director, Ms. Mary Lamielle, has introduced legislation addressing the issue of chemical sensitivity. And the State of California has also addressed the issue through the State Attorney General's office.

It would appear that EI/MCS activists are simply not willing to wait for the science and medical establishments to validate

their complaints. Rather, the groups seem to be doing an "end run" around the normal beaurocratic defenses, and so far their tactics are meeting with success. As noted above, the similarity of this issue to other issues, the receptive audience, and the established means of communication, simplify the job facing these activists. For example, there is reason to believe that these groups helped to spread the story of low-level lead poisoning that eventually burst forth into public view as the cover story of Newsweek magazine in June of this year. Six months before Newsweek, the Human Ecology Action League published the same story in its Fall 1990 newsletter.

## **ACTIVIST PRIORITIES**

#### Insulation

EI/MCS activists consider insulation to be a major problem, some sources state unequivocally that all types of insulation pose hazards for the chemically sensitive individual and have to be carefully isolated from the interior air of any building, (but especially in the home environment.)

It should come as no surprise then when a new insulation material becomes the object of scrutiny. A case in point is the newly formed group "Ozone Solution International" (213/456-0088) which recently issued a press release stating, "Styrofoam Insulation: Could be the Asbestos of the 90's." OSI goes on to state that the HCFCs used in the production of Styrofoam insulation are not only an "Ozone Depleting Compound," but they have been found to "cause tumors . . . in amounts equivalent to what humans face who work in the refrigeration field." OSI claims it is concerned that "Styrofoam (tm) insulation off gases for extended periods of time after installation," and "no tests have been conducted that define the effects of this product long term on the occupants of homes and commercial buildings [where inhabitants would be in] constant contact with this potential carcinogen."

#### Anti-fragrance Movement

Restrictions on the use of fragrances and scented products of all sorts (especially room deodorizers) is a priority for EI/MCS activists. It should be noted that in the same issue of the Human Ecology Action League (HEAL) newsletter that carried a story about health effects of low-level lead poisoning there is a major article entitled, "How Safe Are Perfumes?" Some of the

ingredients used in perfumes, according to studies cited by HEAL, are neurotoxins. And safety studies, as currently conducted by the Research Institute of Fragrance Material, do not test for neurotoxicity.

While the FDA has acknowledged (according to HEAL) that "the incidence of adverse reactions to perfume products appears to be increasing," it has declined to take action. However, as with other matters of concern to EI/MCS activists, they are not idly waiting for action by the authorities.

In the national arena, the Candida Research and Information Foundation conducted a survey of the effects of perfume exposure in 1990-91. At that time, HEAL urged its members to participate in that survey, as well as write to Representative Ron Wyden (D-OR), chairman of a congressional subcommittee that is investigating cosmetic safety, and Mr. H. J. Eiermann, director of the FDA division responsible for perfume safety.

Evidence suggests that the anti-fragrance movement is receiving more attention from the media too. On November 4, 1991, the <u>San Francisco Chronicle</u> carried a front page article entitled, "Frangrance Sensitive--A Whiff of Revolution in the Air." The article was continued on another page under the headline, "Movement to Restrict Perfume Is Taking Hold Across Nation." The article lists some of the successes of the antifragrance movement, including:

- o "After initial bemusement, the Marin County Parks, Open Space and Cultural Commission recently created a 'fragrancefree area,' where those wanting to keep a distance from perfumes can sit during public hearings."
- o "A San Francisco County government subcommittee is considering announcements on board agendas that fragrances are not welcome at the meeting, as well as a ban on wall-mounted fragrance dispensers in public buildings."
- o "In 1992, a state law will require magazine publishers to package fragrance advertising in ways that prevent odors from leaking."
- "The U.S. Department of Housing and Urban Development and the Social Security Administration have recognized multiple chemical sensitivity—the term for the affliction of people who have severe reactions to perfumes and other products, such as new carpets, hair spray and paints—as a disability."

"Restrictions on fragrances--or special 'fresh-air zones'-have been established at a New Jersey insurance company and
at several restaurants and churches across the country, said
Mary Lamielle, president of the National Center for
Environmental Health Strategies, a New Jersey-based
organization with 2,000 members."

According to testimony before Congress on July 24, 1991, the National Center for Environmental Health Strategies would like to see legislation to:

Prohibit the use of toxic or allergenic deodorizers, olfactory nerve anesthetics, odor masking agents, or other perception blockers, as well as the use of perfumes and scents in public buildings.

### And:

Prohibit the use of scents and perfumes in public buildings for the purpose of altering the behavior or mood of the occupants. [This latter is sometimes called "aroma therapy," a kind of "Muzak for the nose" which is currently very popular in Japan where it is believed that certain background fragrances can lead to increased worker production.]

## Anti-carpet Movement

Another priority among indoor air activists is to increase public awareness of the dangers associated with carpets and adhesives. This is an area that local government may be asked to address. For example, it is likely that activists will try to convince authorities to specify floor finishing products "less toxic" than carpet, for new or renovated public buildings such as libraries, government offices, hospitals, schools, etc.

It is also likely that activists will take a multi-pronged approach to their anti-carpet campaign. Fearing that average, healthy people will not be as concerned about low level chemical outgassing as EI/MCS victims, they may approach the issue with more conventional arguments to back up their contentions that carpeting should not be the preferred finishing material for floors. Because carpets harbor dust, they are likely to contribute to higher levels of metal particulates (especially lead, a major concern at present) in the indoor environment. Efforts to minimize dust accumulation in carpets requires the use of vacuum cleaners which are currently being implicated for contributing significantly to bad indoor air quality. (In fact,

Another reason that EI/MCS activists dislike carpets is that they are also likely to harbor molds. The combination of dusts and molds leads to musty odors that may cause carpet owners to buy "room deodorizers" that emit scents and outgas formaldehyde, thus contributing further to indoor air pollution. Carpets that don't harbor molds probably contain fungicides, another substance of which activists strongly disapprove.

The State of California Air Resources Board is currently considering regulations addressing the issue of Volatile Organic Compounds in consumer products which would also affect many perfumes and scented products.

#### Protect the Children Movement

In addition to the specific question of whether or not carpeting should be installed in schools, (as mentioned above), the effects of indoor air pollution on children are currently a major concern. In addition to research in this area, grassroots organizations are collecting case histories of children with chemical sensitivities.

The Fall 1990 issue of "The Human Ecologist" (H.E.A.L. newsletter) had several case histories and related articles including; "Children, Teens, and Chemical Sensitivities," "Common Classroom Toxics," "Managing High School and College with Chemical Sensitivities," and "A Child Speaks Out Against Pesticides."

The October 1991 Environmental Health Network newsletter includes articles such as, "Chemical Soup in the Classroom,"
"Asthma on the Rise Among U.S. Children," and a case study of "Knipe v. Tigard Schools" in which a child with chemical sensitivities successfully sued the Public School District in Tigard, Oregon for the right to special education services, based on his EI/MCS disability.

#### Pharmaceutical Issues

Members of the AIDS group, ACT-UP, recently cooperated with EI/MCS activists in a protest outside of a conference devoted to

the issue of chemical sensitivity. It is possible that some part of the EI/MCS movement will address issues related to AIDS (could AIDS victims be more sensitive to chemicals in their environment than healthy people?--for example.)

Note also that the National Center for Environmental Health Strategies would like to see a government mandated "investigation of the role of industry, organized medicine, insurance companies and government agencies in the delays in recognizing and funding research on MCS."

#### Lawn Care Chemicals

The use of lawn care chemicals is an area of major interest to EI/MCS activists. Although the chemicals are used outdoors, there is concern that consumers use them incorrectly, lawn-care companies use them profligately and don't provide adequate warning to neighbors, and the chemicals may be carried into the home in dust and dirt particles, thus adding to indoor air pollution.

The National Center for Environmental Health Strategies is collecting letters "detailing health effects from lawn care pesticides: insecticides, herbicides, fungicides, etc., for a project with government agencies and the media." And the Human Ecology Action League has recently carried articles addressing the issue from a legal perspective ("in the event that a lawn-care chemical causes foreseeable harm to a significant and substantial number of users, then a legal remedy is clear").

## **INDUSTRY CONSIDERATIONS**

Considering the possibility that science may yet find a cause and effect relationship between low-level chemical exposure and adverse health affects, the cost to industry, in terms of the workforce alone, are potentially significant. Even considering the current acknowledged sources of indoor air pollution, the stakes are high (i.e. presuming no health effects from exposure to low levels of chemicals, health problems proven to be associated with indoor air pollution refers to those caused by exposure to naturally occurring gases, biological contaminants, particulants, radon, and second hand tobacco smoke).

For example, the Environmental Protection Agency has estimated that currently "the U.S. workforce spends from \$4.7

billion to \$5.4 billion in medical bills due to illnesses caused by exposure" to polluted indoor air. Numbers of this magnitude are obviously of concern to industry, which is always interested in ways to reduce health costs. Furthermore, these numbers may not reflect the true magnitude of the effects of indoor air pollution on the economy in general, as money spent on health care for individuals not in the workforce is also removed from the amount of money available as disposable income or savings.

Industry might also question whether, if chemical sensitivity exists, there might be an associated reduction of productivity among workers that do not actually become ill, or a lowering of academic achievement levels among future members of the workforce.

#### Legal Implications

Beyond the economic considerations of effects on the workforce, if medical research does eventually prove the relationship of low-level exposure to chemicals and negative health effects, recent history has shown that the potential economic impact is significant.

Obviously, the real economic impact of an illness that has not been proven to exist is impossible to estimate. However, the real economic consequences of an illness that is "believed" to exist, can already be seen. There have been large legal settlements, both out-of-court and jury-awarded, to individuals who claim to have had their health damaged by low-level exposure to chemicals.

Denial of the problem has been the approach taken to similar problems in the past, and it has proven quite expensive. Some corporations will undoubtedly investigate alternatives such as taking decisive action, and defending themselves later with the evidence that they acted responsibly early in the controversy. People, and perhaps juries as well, may accept the argument that "we were all ignorant of the facts," where they would not accept any defense of business that appeared to have known the facts but ignored them.

## Affects on Property Values

Already, the potential for law-suits based on indoor air quality factors has affected the value of some real estate. Banks, realtors, mortgage companies, and government lending agencies are not waiting for proof that environmental illness is

and speeches to "community groups, environmental organizations, and other groups." Other methods he advocates include, "one-day conferences for architects, contractors, developers, realtors, and home owners," and "participation in home shows." Needless to say, these methods, combined with the more ordinary means of reaching customers such as advertising, referrals from other customers and professionals in related businesses, press releases, etc., will all contribute to the "education" of the American consumer.

### Consumer Education

In addition to the people that have an economic incentive to increase awareness of the indoor air pollution issue, there are many other groups participating in the process. And in fact, there is some overlap. The American Environmental Health Foundation in Texas, for example, has a catalog of products which it sells. The profits are then channeled back into research through the "non-profit" arm of the organization.

In recent years, virtually all of the mainstream environmental organizations have included articles on indoor airrelated topics in their membership periodicals, and many also have on-going related educational programs geared towards minimizing use of "household pollutants" such as cleaning and polishing products, aerosols, and deodorizers.

Other groups that have addressed the issue of environmental illness/chemical sensitivity through newsletters and publications include the Disability Rights Education and Defense Fund, and health groups such as the American Association for Respiratory Care, the American Lung Association, National Jewish Center for Respiratory and Immunological Research, etc.

Articles have apppeared with increasing frequency in all the major medical journals including the influential <u>Journal of the American Medical Association</u>, <u>New England Journal of Medicine</u>, <u>The Lancet</u>, etc. And the myriad health oriented publications geared toward the layman have also included articles (for example, <u>Current Health</u>, <u>In Health</u>, <u>Prevention</u>, university newsletters such as "<u>Harvard Medical School Health Letter</u>," etc.)

Virtually all of the most respected scientific journals--for scientists and laymen--have carried articles on the topic of Indoor Air Pollution, including <u>Scientific American</u>, <u>Science</u>, and <u>Science News</u>. Business-oriented publications including the <u>Wall Street Journal</u>, <u>The Economist</u>, <u>Forbes</u>, <u>Technology Review</u>

and profession-oriented periodicals such as <u>Architectural Record</u> and <u>Chemical and Engineering News</u> have all had important articles addressing indoor air quality and problems attributed to EI/MCS. Other publications geared toward the education profession (<u>American School</u> and <u>University</u> and <u>NEA Today</u>) as well as government bureaucracies (<u>Nation's Cities</u>) are examples of profession-specific periodicals that have carried related articles.

Weekly magazines (<u>U.S. News & World Report</u>, <u>Time</u>, and <u>Newsweek</u>, have covered indoor air pollution stories. Hobbyist magazines have brought up the issue with special emphasis on how it relates to exposure to hazardous substances contained in hobby-related materials (<u>Popular Mechanics</u>, <u>Home Mechanix</u>, <u>Workbench</u>.) Parent-oriented magazines (<u>Parents Magazine</u>), women's magazines (<u>Better Homes and Gardens</u>, <u>Redbook</u>, <u>Women's Day</u>) and even fashion magazines such as <u>Mademoiselle</u> and <u>Cosmopolitan</u> have included articles on the subject of indoor air pollution.

In addition to this partial list of the kinds of mainstream publications which have covered the emerging issue of indoor air pollution, all of the consumer activist and "liberal" publications have also run related stories, (e.g. Consumer Reports, Consumer's Research, Mother Earth News, Common Cause Magazine, etc.)

In recent months the issue has even made it to national television, with the Geraldo Rivera show (on NBC) featuring EI/MCS activists, including a spokesperson for the Environmental Health Network. Coincidentally, perhaps, the MacNeil-Lehrer program did a story the next day which utilized footage from a program called, "Bad Chemistry." This one-hour documentary was originally produced by KQED public television in San Francisco, where it was aired in December 1990.

## CONCLUSION

Considering that the average American spends the majority of his time indoors, whether at the office or at home, indoor air pollution undoubtedly has the potential to become an explosive issue in the 1990s. In recent years growing public concern has been heightened by increased media attention to the issue, and this in turn has been compounded by grassroots groups which are beginning to propel the indoor air pollution issue into national prominence.

# **Issue Analysis:**

# **Indoor Air Pollution**

Status as of December 9, 1991

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