

### Federal IAQ Act of 1989 Introduced

On March 21, Senator George Mitchell (D-ME) and 18 Senate colleagues introduced a carbon copy of Mitchell's 1988 IAQ legislative proposal. The bill made it out of committee in 1988 but was never taken up on the floor. Considering Mitchell's new position as Senate majority leader, chances are good that the bill will move through the process more easily this year.

The new bill, S. 657, establishes a wide variety of detailed programs. We summarize those programs and comment on some of them below. The bill is a major step toward recognizing indoor air as a significant national environmental and public health problem. The bill is quite ambitious; the authorized \$48.5 million may be insufficient to accomplish all that the bill requires.

We need a significantly expanded federal IAQ effort. However, if EPA and other federal agencies expand their activities too quickly, efficiency and effectiveness will suffer. The rapid development of the radon program demonstrates that when the need is perceived, a large and effective effort can be quickly mounted. The case of asbestos, however, shows how Congress can mandate action but not adequately fund it; the results are less than satisfactory, according to many observers.

Many federal agencies engage in research activities related directly or indirectly to indoor air. The most important area for new federal activity is the health sciences. More IAQ research funding at some of the national institutes of health could do much to improve our understanding of IAQ health effects. The research methods and personnel are there to respond if funding priorities are set to encourage work on indoor air health issues.

Of course, federal budget politics do not support proposals for large (and costly) new programs. Other more established environmental issues have suffered from inadequate funding for many years. Acid rain, toxic waste cleanup, clean air, and disaster (oil spill) response are still important agenda items in Washington.

#### Key Provisions of the Bill

##### Research

The bill mandates a broad range of research activities. The research program will study the following aspects of indoor air contamination:

- Health effects;
- Exposure assessment;
- Identification of populations at increased risk of illness;
- Characterization of the increased risk;
- Characterization of exposure in different building types;
- Identification of building types or design features which increase the likelihood of exposure;
- Assessment of nonindustrial worker exposure and health effects;
- Source identification; and
- Assessment of indoor-outdoor concentration relationships.

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The research program will also include studies to:

- Develop methods for characterizing and modeling indoor air movement;
- Assess the environmental fate of contaminants;
- Develop methods for characterizing the relationship between contaminants in indoor air and climate, location, seasonal change, soil, and site geology;
- Assess IAQ in schools and measures to control contaminants in such buildings;
- Develop methods and instruments for sampling indoor air, including low-cost, easy-to-use instruments accessible to the general public; and
- Develop materials and products that may be used as alternatives to indoor air contaminant sources.

A technology demonstration program will fund up to 75% of project costs. The program will favor projects that may effectively control sources or potential sources of contaminants dangerous to human health. Projects with wide applicability will also be favored. Grants will be awarded annually.

The research program will publish bulletins that assess technologies and management practices for the control and measurement of contaminants in indoor air.

The bill calls for radon monitoring protocols for child care facilities within six months of the bill's enactment. The protocols will go to appropriate state agencies. The EPA will also undertake radon diagnostic and remedial efforts in nonresidential child care facilities. These efforts will lead to the

development of methods which can be used widely.

The bill also requires the program to make a report to Congress on the extent and seriousness of indoor air contamination in schools within two years.

#### *Health Advisories*

A fundamental question about exposure to indoor air contaminants is whether adverse health effects are likely. The health advisory requirement, along with the research program, responds to the need for answers. Within 240 days of enactment, EPA will publish a list of contaminants that occur in indoor air. This list will be reviewed and revised at least biennially. The bill provides for public review and comment on the list before publication.

The list will not be considered rulemaking. This will make it easier to list a substance; there will be no burden of findings or evidence. Also, absence from the list will not indicate that a substance is safe or free of adverse human health effects. States may apply to have individual contaminants added to the list.

EPA will publish advisories about the adverse health effects of individual contaminants on the list. The advisories will describe:

- The contaminants' characteristics;
- Adverse human health effects;
- Risks associated with various levels of the contaminants;
- Threshold levels for no known human health effects;
- Specific sources of contaminants and their emission rates; and

- Any standards or related action levels in effect under state or federal law.

The advisories will help the public understand the range of risks of exposure to indoor air contaminants. They will be written so the general public can understand them. Six advisories will be required within 18 months of enactment, and six more within 36 months. The program will revise published advisories every five years. Public review and comment will precede publication of the advisories.

The Indoor Air Panel of the EPA Science Advisory Board will guide the development of the health advisories. That group will advise on the priority of contaminants as health advisory subjects and on the content and quality of the advisories.

The Mitchell bill provides the research program and the health advisories \$20 million per year for five years. This is a paltry sum considering the scope of the legislative mandate and the nature of the beast. So little is understood about so many of the hundreds of indoor air contaminants of potential significance. Yet, two elements of the legislation are the keys to real progress: the research, in order to gain an understanding of the problems, and the health advisories, in order to develop a basis for identifying and evaluating methods to control indoor air quality.

Senate staff consider the health advisories an important component of the program. The advisories will drive much of the bill's implementation and will lay the foundation for the future of indoor air research, regulation, and private sector response. However, the pro-



gram is not sufficiently funded to do the kind of work needed to implement this part of the bill.

Representative Claudine Schneider (R-RI), lead Republican co-sponsor in the House and the ranking Republican member of the Natural Resources Subcommittee of the Science, Space and Technology Committee, is likely to push for an overhaul of the health advisories provisions. Her committee authorizes all of EPA's research and will probably hold hearings this summer, according to sources close to Rep. Schneider.

When Rep. Joseph Kennedy (D-MA), introduced the House version of the Mitchell bill on March 21, Rep. Schneider indicated that she will work for changes in the health advisory requirements. She is likely to push for unambiguous, but "realistic," action levels — although health based, they must be feasible. She will also push for the incorporation of specific solutions into any health advisory. On the House floor, she presented her concerns and intentions as follows:

"Industries who are willing to do their part have pointed to certain approaches that would assist them in complying with such guidance. First, they seek clarity in the targets set out by the agency. Action levels for different contaminants should be specific in order to minimize uncertainty regarding what is expected from remediation.

"Second, there should be established a reasonable process by which the action level is set. Recommended action levels should be based on concentrations that do not present a significant risk to health. At the same time, however, the action level should be one that realistically can be

achieved. For example, the air quality indoors should not be expected to exceed the quality of air found outdoors. Furthermore, interested parties should have ample opportunity to contribute to the recommendation process.

"Finally, the issuance of any recommended action levels for a particular contaminant should be accompanied by practical information regarding the remediation technologies and options that are available. A fairly successful model for the agency to follow is the radon program, which has been widely credited not only for bringing the public attention to the serious threat of radon, but with providing useful information for the person who wants to correct it."

Sources close to Schneider indicate that industry is going to ask for protection from liability, and that it is willing to act responsibly if the rules are made clear. Radon is considered a "good" example, and asbestos is considered a "bad" example, of how this sort of issue has been handled in the past. There is a strong sense that we do not know enough scientifically to regulate; therefore, we should protect industries willing to make a good-faith effort.

#### *National IAQ Response Plan*

The bill also requires that EPA, in consultation with appropriate federal agencies, develop and publish a national indoor air quality response plan. Some of these requirements call for little more than dissemination of information developed under the research section. However, the response plan will also identify contaminants requiring action to protect public health [read that "regulation"], the statutory basis

for such action, the implementing federal agency, the financial resources needed, and the indoor air contaminants for which concentration reduction requires developing further technology.

The response plan is due to Congress within 24 months of enactment of the legislation.

#### *Comment*

We have little faith in the development of an effective, comprehensive response plan at the federal level. In our view, that would involve recognizing that indoor air poses more serious threats to public health than outdoor air or many other environmental problems that are far more heavily researched, regulated, and financed. An effective effort requires a radical increase in funding of indoor air research and technical assistance, perhaps ten times what the Mitchell bill requests.

Even if Congress wanted to provide such funding, the federal government is not prepared to administer such an increase in activity at this time. However, implementing the health advisory and response plan provisions will generate more understanding and awareness of the significance of indoor air contaminants. This might eventually lead to a better funding level and federal role in assessing and controlling indoor air contaminants.

The IAQ issue has not matured politically, legally, technologically, or financially. The Bush Administration has not yet shown a willingness to tackle environmental issues aggressively. The position of OMB on the EPA Report to Congress will be a bellweather; but even strong support of the draft will not guarantee a reversal

of past and present realities at EPA. OMB's position will be necessary soon, since EPA can hardly testify on the Mitchell bill without discussing the Report to Congress. We covered this topic in last month's issue (*IAQU*, March 1989).

#### *Federal Building Response Plan*

The bill requires the administrator of the General Services Administration and the administrator of EPA to develop a response plan and demonstration program in federal buildings. The federal building response plan will include:

- Actions and guidelines for general management practices;
- Product purchase guidelines;
- Air quality problem identification practices and methods;
- Personnel training programs; and
- Other actions to reduce exposures to indoor air contaminants.

The response plan also includes identifying federal buildings where indoor air contamination is sufficient to justify assessment by NIOSH, and planning for corrective actions. The plan will fund NIOSH investigations as part of a \$5 million per year authorization for NIOSH investigations of federal, state, and municipal buildings. (Note the omission of privately owned buildings.)

Under the federal response plan requirements of the bill, federal workers and the public will be able to file complaints on indoor air quality in federal buildings with the General Services Administration (GSA). The filings will be available to the public, according to our reading of the bill.

One-half of one percent of funds appropriated for new federal building construction will pay for measures to reduce indoor air contaminant concentrations within such buildings. These measures may include developing design measures, improved ventilation techniques or equipment, product purchasing guidelines, contaminant detection and response systems, and building management guidelines and practices; and training building management and maintenance personnel in building and systems operations.

The bill requires that the new EPA headquarters building in Washington be designed, constructed, maintained, and operated as a model to demonstrate principles and practices for protecting indoor air quality. [*IAQU* editor Hal Levin is an indoor air quality consultant to EPA on the requirements for the design of the new building.] GSA is now reviewing EPA's building proposal. The building plan is the first attempt to implement ASHRAE's revised ventilation standard and to develop strict guidelines for building material and product selection. If GSA approves EPA's proposal, the building will pave the way for many IAQ innovations.

The bill authorizes \$2 million per year for the federal response plan.

#### *State and Local Indoor Air Quality Programs*

States may apply for grants to support demonstration programs for management strategies and for assessing IAQ within the state. These programs allow the states to develop information for health advisories, particularly the setting of action levels, guidance, or standards. Grants under this section

may not be less than \$75,000 per year.

States or local air pollution control officers may apply for grants to help develop response programs that reduce human exposure to indoor air contaminants. These plans must address contaminants on the previously discussed federal list. Grants under this section may not exceed \$250,000 per year for a maximum of three years; the federal share cannot exceed 75% of the total program cost.

\$12 million per year is authorized for the entire state and local grants program. One-third of the funds would be reserved for the state and local response programs.

#### *Office of Indoor Air Quality*

A new Office of Indoor Air Quality within the Office of Air and Radiation will implement many of the EPA programs. (Currently, EPA has a Division of Indoor Air in the Office of Air and Radiation.) The change in status from Division to Office means an increase in staffing to not less than ten permanent full-time employees and a permanent full-time employee in each regional EPA office.

#### *Council on Indoor Air Quality*

The bill also authorizes the already functioning Council on Indoor Air Quality (CIAQ). The CIAQ is a federal government interagency coordinating body representing the departments of Health and Human Services, Housing and Urban Development, Energy, Transportation, the Consumer Products Safety Commission, and the General Services Administration. The council will make a biennial report to Congress. Funding for the CIAQ will come from \$10 mil-