

ON REPORT



EPA Science Board concludes passive smoke causes cancer

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The Science Advisory Board (SAB) of the U.S. Environmental Protection Agency (EPA) tentatively concurred recently with a preliminary EPA determination that environmental tobacco smoke causes cancer.

Environmental tobacco smoke (ETS) is an indoor air contaminant "created by the combination of exhaled mainstream smoke, and the direct emissions into room air from the burning of cigarette, pipe and cigar tobacco," according to research scientist James L. Repace. The SAB reached its preliminary conclusions following a scientific and technical review of two EPA draft reports issued last year (see the September 1990 ASHRAE Journal).

EPA finds causal link

The second draft report, "Health Effects of Passive Smoking: Assessment of Lung Cancer in Adults and Respiratory Disorders in Children," addressed the scientific evidence (mostly epidemiologic) on the possible respiratory effects of exposure to ETS (also called passive smoking). The first report, written as a policy guide for employers, recommends workplace smoking be prohibited or at least confined to enclosed, separately ventilated rooms with direct external exhaust.

The "Health Effects" report builds on research conducted in 1986 by the U.S. Surgeon General's office and the National Research Council. But the EPA assessment also extends previous findings by including subsequent epidemiologic evidence on the potential association between ETS and lung cancer in non-smoking adults and respiratory disorders in children.

The EPA tentatively concluded that ETS is causally associated with lung cancer in non-smoking adults and that, according to EPA guidelines for carcinogen risk assessment, ETS is a "Group A" (known human) carcinogen. The EPA also tentatively concluded that an approximate total of 3,800 lung-cancer deaths occur per year among non-smokers because of exposure to ETS.

Concerning respiratory effects in children, the draft report concluded that ETS

from parental smoking, especially during the child's infancy, is associated with increased prevalence of acute lower-respiratory tract infections (bronchitis and pneumonia), respiratory symptoms of irritation and middle-ear effusions.

"It became apparent that the impact of ETS on people with respiratory illnesses may be larger than the impact indicated by its carcinogenic effects," according to ASHRAE member and SAB panelist James E. Woods, professor of building construction at Virginia Tech. "That is basically due to the fact that many more people will suffer from respiratory diseases than will die from lung cancer caused by ETS exposures," he said.

The Science Advisory Board includes scientists, engineers and physicians who review EPA data for scientific and technical accuracy in a formal process that is open to public comment. The SAB Indoor Air Quality Panel, which reviewed the draft ETS documents, found the evidence convincing and tentatively concurred with the EPA's findings.

The board will complete a final written assessment next month, after which the EPA plans a formal reply. Indications are that the preliminary conclusions contained in both the EPA draft documents will not change significantly in the final reassessment, scheduled to be issued this summer.

Pressure is mounting both within the federal government and the private sector for regulations to restrict smoking in the workplace.

In the private sector, anti-smoking groups have scored a series of successes in recent years and continue to aggressively pursue their goals. One group recently filed suit to compel the U.S. Occupational Safety and Health Agency (OSHA) to promulgate rules on workplace ETS.

As part of that action, OSHA disclosed that it intends to begin formally gathering information this spring on whether indoor tobacco smoke should be regulated as a workplace hazard. OSHA's decision to consider the role of all possible indoor-air contaminants within the workplace is likely to delay the development of

any federal indoor-air standard for at least one year.

Congress may act

In the federal sector, the EPA's classification of ETS as a human carcinogen provides an important impetus for eventual workplace regulations. Many legislators in Congress would like to see a workplace smoking ban and several even support providing the EPA with additional authority to regulate the indoor environment.

The Indoor Air Quality Act, which failed to pass before the 101st Congress adjourned last year, contained provisions that would have mandated the EPA to conduct a nationwide program to determine the adequacy of existing ventilation standards and guidelines in protecting public health and promoting worker productivity.

Such a program could be seen as a preliminary step toward the eventual development of a federally enacted, nationwide indoor air standard. "We're very interested in giving the EPA the authority to regulate indoor air," one Congressional staffer told ASHRAE's Washington office recently.

Both Rep. Henry Waxman (D-Calif.) and Rep. Joseph Kennedy (D-Mass.) have said they expect a new indoor air quality bill to be introduced during the first session of the 102nd Congress. Representative Waxman chairs the Health and the Environment Subcommittee, a key committee on this issue.

Representative Kennedy, who sponsored indoor air quality legislation during the last congress, said he expects an even stronger bill this year. His office expects a draft copy of the new indoor air quality bill to be completed within days of this writing and hearings to be held this spring. Representative Kennedy fully intends the legislation, when reintroduced, to eventually lead to new regulatory authority in the indoor air area for the EPA, according to a staff specialist.

For more information, send for "Indoor Air Facts No. 5: Environmental Tobacco Smoke," Public Information Center, U.S. Environmental Protection Agency, Mail Code PM-211B, 401 M Street S.W., Washington, DC 20460.