American Medical Association
Physicians dedicated to the health of America
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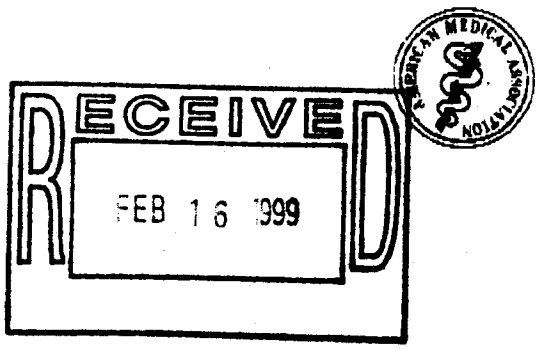

February 12, 1999

Dr. C.W. Jameson
National Toxicology Program
Report on Carcinogens
79 Alexander Drive, Room 3217
PO Box 12233
Research Triangle Park, NC 27709

Dear Dr. Jameson:

RE: Call for public comments on agents proposed for listing in the Report on Carcinogens, Ninth Edition

Environmental Tobacco Smoke

This statement of the American Medical Association (AMA) on the hazards of passive smoking is a summary of a variety of statements by the AMA in review of the medical literature on passive smoking, public testimony on the subject, and policy adopted by the AMA House of Delegates. We fully agree with the conclusions of the National Toxicology Program, and concur with the proposal to list environmental tobacco smoke as a known human carcinogen.

The AMA has adopted no fewer than 16 policy statements that call for protection from the risks that come from exposure to smoke in the environment, including a call for smoke-free public places, workplaces, restaurants, medical facilities, and transportation. The AMA Council on Scientific Affairs, its highest scientific body, issued and published a review paper in 1995 that agrees with the findings of the US Environmental Protection Agency and others that ETS should be classified as a known human carcinogen. The AMA also testified in support of proposed regulations by the Occupational Safety and Health Administration (OSHA) that would have created smoke-free indoor work environments in most US workplaces.

There is no controversy within the health community about the hazards to health imposed by ETS exposure, or that the 4,000 chemicals in ETS cause disease. This is not the opinion of one or two minor groups, but of the AMA, the American Cancer Society, the American Heart Association, the American Lung Association, the US Environmental Protection Agency, the Surgeon General, the National Academy of Sciences, and many others.

Environmental tobacco smoke (ETS) is the third leading cause of preventable death in the US, surpassed only by direct smoking and the use of alcohol. For every eight smokers

that die, one nonsmoker will die from longterm exposure to ETS. The best estimate of involuntary smoke-related mortality in the US is between 40- 50,000 deaths per year; most of that is from heart disease, with about 3000 deaths from lung cancer. Other cancers in the nasal sinus and elsewhere are also very likely caused in smaller numbers as a result of chronic ETS exposure.

The science of ETS and health was recently reviewed by both the California Environmental Protection Agency in a massive review published in 1997 and by the Ohio State University School of Public Health (publication in press). Both groups independently found that ETS causes lung cancer.

More than 450,000 tons of tobacco are burned indoors in the US each year, releasing over 4000 chemicals into the indoor environment. The smoke contains over 5 dozen known or suspected carcinogens, and chemicals such as formaldehyde, benzene, ammonia, and carbon monoxide. These chemicals are not the natural byproducts of any manufacturing process or an unavoidable hazard in any industry.

An examination of recently published articles affirming the carcinogenicity of ETS includes the meta-analysis by Wells (Am J Public Health 1998; 88(7):1025-9) concluding that exposure to ETS in the workplace yields about the same risk as household exposure, with a combined RR of 1.39 for lung cancer. Hackshaw's review (Stat Methods Med Res 1998;7(2):119-36) found that household exposure increases the risk of lung cancer among neversmoking women by about 24%. The study of the carcinogenic potential of the gas phase of ETS by Witschi, et al, (Carcinogenesis 1997; 18(11):2035-42) reveals that the gas phase is as carcinogenic as full ETS among exposed animals.

In the case of the restaurant and entertainment industry, ETS is a particular problem for employees. Studies published in the JAMA from California show that levels of smoke in California restaurants were 1.6 to 2 times higher than in offices that allowed smoking, and 1.5 times higher than in homes with at least 1 smoker. California waiters and waitresses were found to have double the lung cancer of the general population.

The tobacco industry strongly opposes actions such as the National Toxicology Program proposal, since further confirmation of the health risks from ETS strengthens the science that leads to regulatory and legal measures that protect the public from the health risks of passive smoking. Besides protecting child and employee health, such laws also show children that smoking is not something that can be done just anywhere; that smoke can harm those who choose not to smoke; and smokefree environments encourage youth not to become smokers. The tobacco companies, of course, don't like these messages, since such things can influence their future profits.

In closing, the AMA strongly supports efforts to minimize exposure of the public and workers to the dozens of airborne toxins delivered by cigarette smoke.

Alcohol and Cancer

In 1998 the National Toxicology Program's Board of Science counselors recommended that alcohol be added to the list of known human carcinogens. Our brief review of the scientific case they make and of other findings supports this recommendation.

Alcohol is thought to play a direct role in some cancers (e.g., mouth and esophageal) and an indirect role in others (e.g., liver or possibly breast). It may act in a variety of ways: at the genetic level; as a cocarcinogen; causing abnormalities in the way body processes nutrients; by suppressing the human immune system; or through liver cirrhosis which it may cause, or in the cases of hepatitis B or C infection, exacerbate. (NIAAA, Alcohol Alert, No. 21, 7/93). There is an implied cocarcingoenic interaction between alcohol and tobacco-related carcinogens: the risk for mouth, tracheal and esophageal cancer is 35 times greater for people who both smoke and drink than for people who neither smoke nor drink. (NIAAA, Alcohol Alert, No. 21, 7/93).

Upper digestive tract:
"A strong association exists between alcohol use and [nearly 50% of] cancers of the esophagus, the pharynx and mouth, whereas a more controversial association links alcohol with liver, breast, and colorectal cancers. Together, these cancers kill more than 125,000 people annually in the United States." (NIAAA, Alcohol Alert, No. 21, 7/93). People who consume more than 21 drinks per week have almost a tenfold higher risk of esophageal cancer than those who drink fewer than 7 drinks per week (Vaughan et al. 1995) 9th Report to Congress on Alcohol and Health

Liver cancer:
Prolonged, heavy drinking has, in many cases, been associated with liver cancer but the linkage may be through liver cirrhosis or hepatitis viruses. In the United States liver cancer occurs in approximately 2 people per 100,000 (vs. 50+ in Africa and Asia) but excessive alcohol consumption is linked, in some studies, with up to 36% of these cases. (NIAAA, Alcohol Alert, No. 21, 7/93)

Breast cancer:
The evidence linking breast cancer and alcohol consumption is contradictory with some studies showing an increased risk from chronic consumption and others not finding a link. (NIAAA, Alcohol Alert, No. 21, 7/93) A recent analysis of 6 prospective studies and a previous meta-analysis found a linear increase in breast cancer incidence over the range of alcohol consumption (SA Smith-Warner, at al., "Alcohol and Breast Cancer in Women," JAMA 1998; 279:535-540. MP Longnecker, et al., "A meta-analysis of alcohol consumption in relation to risk of breast cancer," JAMA 1988;260:652-656)

Sincerely,

Thomas P. Houston MD

Thomas P. Houston, MD
Director, Science and Public Health Advocacy Programs
American Medical Association