HEALTHY BUILDING NETWORK
healthybuilding.net

Jim Aguila, Manager
Stationary Source Division/Substance Evaluation Section
Air Resources Board/CalEPA
1001 I Street,
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Sacramento, CA 95812

November 21, 2006

Dear Mr. Aguila:

At the October 23rd public hearing, there was some concern raised about California Air Resources Board's (CARB) reliance on the Office of Environmental Health Hazard Assessment's (OEHHA) position on formaldehyde, its toxicology and health effects. Members of industry expressed the opinion that the current science shows formaldehyde is not as great of a concern as OEHHA's 1992 analysis indicates.

As you are probably aware, this is not a new argument from industry. Given the current state of the science on the health effects of formaldehyde, however, we strongly believe that a careful review of the most updated peer-reviewed science indicates that CARB's reliance on OEHHA's risk assessment on formaldehyde is well-founded. [1]

Less than three years ago, in 2004, the World Health Organization's International Agency for Research on Cancer (IARC) updated its report on formaldehyde. Before 2004 (1987 and 1995) based on limited available peer-reviewed studies, IARC concluded formaldehyde was a "probable carcinogen." In 2004, however, IARC changed its position based on new information from studies of persons exposed to formaldehyde. In the most recent classification from IARC, the expert working group found that evidence was sufficient to increase the level of concern about formaldehyde. In 2004, IARC found sufficient evidence to conclude that formaldehyde is "carcinogenic to humans."

In addition to IARC, other national and international regulatory agencies have determined that formaldehyde is a public health and occupational concern. The National Toxicology Program (NTP) has classified formaldehyde as "reasonably anticipated to be a human carcinogen." The National Institute for Occupational Safety and Health (NIOSH) has determined that formaldehyde is a "potential occupational carcinogen." The Association of Occupational and Environmental Clinics (AOEC) concluded that formaldehyde is a potential asthmagen. The EPA Integrated Risk Information System (IRIS) found that formaldehyde is a probable human carcinogen in animal studies. Moreover, the EPA under the Clean Air Act, has concluded that formaldehyde is a hazardous air pollutant.

The record is clear. Increased study of formaldehyde reiterates concerns about its impact on public and occupational health. Consensus exists in the peer-reviewed science that the risks from formaldehyde substantiates the basis for the CARB action based on the OEHHA analysis.

Healthy Building Network
c/o Julie Silas
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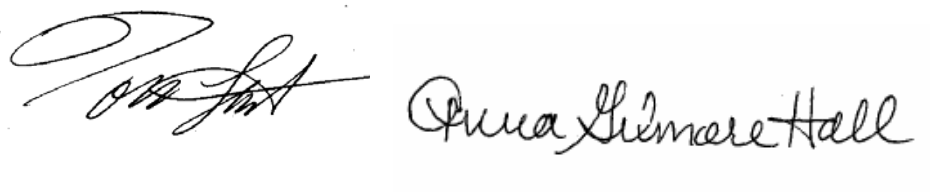
We strongly support the CARB staff proposal to regulate formaldehyde emissions from composite wood products rapidly and bring them as close to zero as is technically possible by 2012 in order to protect public and occupational health.

Please continue to press for the most stringent regulations you can implement with a meaningfully rapid timeline.

Signed,



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Science Director
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[1] Much of the industry push to re-evalute formaldehyde is spurred by a mathematical model of formaldehyde toxicity developed by CIIT (Chemical Industry Institute of Toxicology). The CIIT model is limited in a number of significant ways, but, most obviously, it fails to account for the risk of cancers in tissues other than the nose and throat. In particular, the model ignores leukemia risks identified in two robust independent epidemiology studies of exposed workers, by NIH/NCI (Hauptmann M, Lubin JH, Stewart PA, Hayes RB, Blair A. Mortality from solid cancers among workers in formaldehyde industries. Am J Epidemiol. 2004 Jun 15;159(12):1117-30) and CDC/NIOSH (Pinkerton LE, Hein MJ, Stayner LT. Mortality among a cohort of garment workers exposed to formaldehyde: an update. Occup Environ Med. 2004 Mar;61(3):193-200.). At a 2004 meeting of IARC's chemical evaluation program, 26 scientists from 10 countries evaluated all the available evidence on the carcinogenicity of formaldehyde, including the CIIT model and the NCI and NIOSH occupational studies. In addition to definite evidence of nasopharyngeal cancers, IARC also found limited evidence for cancer of the nasal cavity and paranasal sinuses and "strong but not sufficient evidence" for leukemia. (The finding for leukemia reflects the epidemiologists' finding of strong evidence in human studies coupled with an inability to identify a mechanism for induction of leukemia, based on the data available at this time. Press Release No. 153. World Health Organization, June 15, 2004. *IARC Classifies Formaldehyde As Carcinogenic to Humans*.)