



December 28, 2004

Ms. Dorothy Shimer
Research Director
Air Resource Board
P.O. Box 2815
Sacramento, CA 95812

Subject: November 2004 Draft Report to the California Legislature: Indoor Air Pollution in California

Dear Ms. Shimer:

The Clorox Company, headquartered in Oakland, California, appreciates the opportunity to submit additional comments in response to the *California Air Resources Board's November 2004 Draft for Public Review of the Report to the California Legislature: Indoor Air Pollution in California*.

Clorox supports and urges your serious consideration of the additional comments submitted by our trade associations—the Consumer Specialty Products Association and The Soap and Detergent Association. We also respectfully submit the following:

- 1. The correlation between asthma and bleach in Section 2.1.1, Page 37, is inaccurate.** There is no scientific study to date that establishes a correlation between the use of bleach and bleach-containing products and the onset of asthma. The Rosenman et al study cited in the draft report lacks scientific rigor. As the authors themselves acknowledge, the study does not demonstrate a definite causal relationship between bleach and asthma. In addition, 95% of the documented cases of asthma were diagnosed by history as opposed to tracking pulmonary changes upon exposure and therefore lack specificity. Finally, the Rosenman study focuses on exposure to cleaning products in a workplace setting. Such exposures are of limited relevance to a domestic setting.
- 2. Cleaning products when used in the manner directed are part of the solution and not the cause of asthma.** While the report describes the role of biological contaminants in the onset and exacerbation of the symptoms of asthma, it fails to recognize the benefits of cleaning products such as disinfectants and bleach in mitigating the effects of asthma. Indoor air pollutants such as mold, dust mites, cockroach matter and animal dander have been strongly associated with increased

respiratory problems in adults and children with asthma. A study conducted at the University of Arizona has demonstrated that a bleach solution not only effectively kills mold but also neutralizes mold spores and is therefore one of most effective and efficient ways of reducing mold allergen on hard surfaces (*Reynolds et al, Journal of Allergy and Clinical Immunology, February 2004, Abstract #617*). The Asthma and Allergy Foundation of America (AAFA) has recommended the use of bleach for controlling indoor air allergens.

In light of the above, we would respectfully urge the Air Resources Board to modify the draft Report to eliminate the inaccurate reference to the correlation between the use of bleach and bleach-containing products and the onset of asthma. We would also urge the Air Resources Board to include a statement regarding the benefits of using cleaning products, when used as directed, as part of the solution and not the cause of asthma.

The Clorox Company appreciates the opportunity to comment on this Report to the Legislature and urges your serious consideration of our concerns. If you have any questions, please contact Robin Gentz in Government Affairs at 510-271-7081.

Sincerely,

A handwritten signature in black ink that reads "Victoria Jones". The signature is written in a cursive, flowing style.

Victoria Jones
Director, Government Affairs

c: Richard Bode, Chief, Health and Exposure Assessment Branch, Research Division
Peggy Jenkins, Indoor Exposure Assessment Section, Research Division
Laurie E. Nelson, Randlett/Nelson Associates