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Mr. James L. VonFeldt

Findings of Studies Related to ETS Exposure in Colorado

Dear Jim:

You recently contacted me with a request for information related to a potential expansion of the Colorado Clean Air Act. As a scientist, I believe that, whenever possible, scientific findings should be given weight over political views when forming public policy concerning technical issues. To that end, I am submitting some peer-reviewed scientific papers which I and my investigatory team at Oak Ridge National Laboratory (ORNL) have published. In addition, I am providing a copy of a presentation which I was invited to give to the Bloomberg School of Public Health, Johns Hopkins University, in 2005, which may provide some additional background and edification concerning issues related to smoking bans.

By way of introduction, I retired from ORNL in the fall of 2004, with the title of Distinguished R&D Staff Member and Leader of the Environmental Chemistry and Mass Spectrometry Group of the Chemical Sciences Division, after 29 years of service. In addition, I have acted as an independent consultant since 1997. I have a Ph.D. in Analytical Chemistry from the University of Wisconsin-Madison, and graduated with High Honors from Michigan State University for my undergraduate work. During my tenure at ORNL, I published over 45 peer-reviewed scientific papers in various journals. I am also the lead author of a well known book on the composition of and exposure to environmental tobacco smoke (ETS).

In the United States, I have sat on expert advisory panels in the area of tobacco smoke chemistry and exposure for the National Cancer Institute, the National Institute on Drug Abuse, the Department of Defense, and the Occupational Safety and Health Administration. In addition, I have sat on expert advisory panels in the area of sampling, analysis and exposure assessment and field analytical chemistry for the Departments of Energy and Defense, and the Environmental Protection Agency. Also, I have sat on expert advisory panels related to tobacco smoke chemistry and exposure for the Canadian General Standards Board and Health Canada.

I have attached three documents (two of which are peer reviewed scientific papers) which I have authored or co-authored, the findings of which need to be considered in your deliberations.

The first paper details the methods and key findings of a huge study which we conducted the field work for in 1993 and 1994. The paper describes the so-called "16 Cities Study." Some key findings from that study are as follows:

1. Personal breathing zone exposures to environmental tobacco smoke (ETS) were lower than what many earlier studies had estimated from making area-wide measurements.

2. For subjects either living or working in unrestricted smoking environments, exposures tended to be higher away from work (ie, home) than in the workplace. Such was not the case for the upper percentiles of subjects.

The second paper reports findings of the largest study ever conducted in the United States on exposures of wait staff and bartenders to ETS. Some key findings from that study were as follows:

1. Median workplace (bar and restaurants) ETS exposures of the wait staff in this study were much lower than from those away-from-work due to spousal smoking measured in the 16 Cities Study, and that bartender exposures were only slightly higher. For the most highly exposed bartenders, workplace exposures were a factor of 3 greater than the away-from-work exposure associated with living with a smoking spouse.

2. Overall concentrations of ETS were fairly low: the highest concentration of particles measured in any facility were still 1/7th of the OSHA Permissible Exposure Limit, and the median area concentration of nicotine was less than 1 part per billion.

The third documents some of my comments and thoughts concerning the draft version of the California Air Resources Board report on ETS as a potential "toxic air contaminant," and is related to the consideration of an outdoor ban on smoking. You might find some of my general comments elucidative. You should note that this report was prepared under contract with Womble Carlyle Sandridge & Rice (WCSR), a law firm in Winston-Salem, NC, that represented R.J. Reynolds Tobacco Company, to perform a detailed analysis of the Draft Report and provide written commentary. However, no one from WCSR or RJ Reynolds reviewed any of these comments, nor discussed the substance of them with me, prior to the comments being filed with the California Air Resources Board.

Finally, I have attached a copy of a presentation which I was invited to give at Johns Hopkins University. The paper provides some explanation about ETS chemistry and exposures, how such are determined, and some key findings of a variety of studies we conducted. Typically, outdoor exposures to ETS are vastly lower than those indoors. And I would remind anyone considering the issues in outdoor exposure to any airborne contaminants that such must be taken in the context of ***all exposures received outdoors***, including traffic exhaust, volatiles released from various emission sources and burning of agricultural waste.

Jim, you should note that I have provided this information voluntarily, and was not paid for compiling such or preparing this letter. Feel free to contact me if you need additional information on this subject.

Sincerely,

A handwritten signature in black ink that reads "Roger A. Jenkins". The signature is written in a cursive style with a large initial 'R'.

Roger A. Jenkins, Ph.D.