

Letters

Los Alamos: No Reason to "Rail"

I read with interest William J. Broad's article "Los Alamos: The winds of mutiny" (News and Comment, 8 Oct., p. 134). Having never met or discussed the matter with Broad, I am bemused as to how he can state that I "railed in private" about anything. The "knights" of my round table ran their respective kingdoms in a fashion which made me proud to be associated with them, especially R. N. Thorn, D. P. McDougall, R. Taschek, C. Browne, and R. Schreiber. Those who have been associated with me know that I may "rail," but never privately and never about Los Alamos. Los Alamos is among the best scientific laboratories in the world and one of our nation's finest assets. One does not "rail" about such institutions.

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A firsthand account of Agnew's sentiments about Los Alamos, rather than the statements of former associates, would have simplified the reporting of the article and would have been possible if Agnew had returned my calls to General Atomic. Unfortunately, he did not.

—WILLIAM J. BROAD

Cotton Dust Regulations

There are several aspects of Marjorie Sun's piece on the review of the Occupational Safety and Health Administration's (OSHA) cotton dust standard (News and Comment, 24 Sept., p. 1232) on which I would like to comment.

First, Sun states that the National Academy of Sciences (NAS) report on byssinosis (1), "failed to state clearly that the disease, as a chronic ailment, is directly related to cotton dust exposure." The committee did not, however, conclude that chronic lung disease is not directly related to cotton dust exposure. We said in our report, "If a functionally important chronic airway disorder results from cotton textile dust exposure, it

is important to determine the relationship, if any, between the acute response and a chronic disease. Evidence suggests that emphysema is not associated with exposure to cotton dust, although chronic bronchitis and bronchiolitis probably are associated. The existing evidence is incomplete, and the presumed relationships between acute and chronic disease and the latter's specific relationship to cotton dust remain to be resolved. A link between the acute response and a chronic response, although biologically plausible and often suggested, has not been satisfactorily demonstrated to date, and must be confirmed by longitudinal studies." These conclusions were well thought out and balanced in reflecting the scientific literature. They suggest the limitations of the scientific database, limitations that currently exist regardless of the protestations of special interest groups.

I and other investigators in our group are conducting a large 5-year longitudinal study of textile workers funded by the National Institutes of Health (NIH). It is our expectation that the answers to a number of these unresolved issues will result. Personally, I have written and stated publicly that a chronic airways effect may very well be related to cotton dust exposure; we simply are not sure based on the information available (2). I fail to understand why Jerome Kleiner, chairman of the NAS committee, or I, who chaired the epidemiology subcommittee of that group, was not contacted by Sun so that we could respond to the charges of the critics of the NAS report.

With regard to the implications of bias suggested by Frumin of the Textile Worker's Union, I might point out the following. The "lengthy study" that my colleagues and I performed in cotton textile mills that was funded by the American Institute of Textile Manufacturers several years ago was, in fact, completed in 6 months and represented less than 10 percent of the total research support of my unit during that year. Validity of research results depends primarily on the credibility of the investigators, not on the funding source. It is odd that partial industry support of the study

by Kilburn and Merchant fails to concern Frumin. In fact, while more than three-quarters of our funding comes from NIH, in the investigation of occupational lung diseases it is logical from time to time to obtain support from both industry and labor, as has been the case in our unit.

In our published study (3), we reported a dust dose-byssinosis relationship, as well as a relationship between exposure and across-shift decline in ventilatory function, as has been found by other investigators. We pointed out, however, that, while this relationship emerges when mill data are pooled, there are factors within the mill that also have a substantial influence on variability in the biologic responses studied. This important point has been widely accepted and may very well explain spurious findings by investigators who have not looked at variability between mills, including some of those mentioned in Sun's article. It may be of interest that, based on this and other work performed in our unit (4), I testified at the request of OSHA at the public hearings and supported the 1978 cotton dust standard.

Respiratory health effects associated with cotton dust exposure, in common with many occupational and environmental issues, become confounded by social and economic factors which, while of obvious importance, do not deal directly with the strength (or lack of it) of the scientific evidence. While public policy requires consideration of all of these aspects, it is not necessary (or desirable) to bend the scientific data base in order to accomplish a responsible approach to occupational health problems. Ultimately, it is good science resulting in increasing knowledge that provides a sound basis for public policy addressing preservation of worker health.

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References

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2. H. Weill, *Chest* 79S, 1S (1981).
3. R. N. Jones, J. E. Diem, H. Glindmeyer, V. Dharmarajan, Y. Y. Hammad, J. Carr, H. Weill, *Br. J. Ind. Med.* 36, 303 (1979).
4. R. N. Jones, J. Carr, H. Glindmeyer, J. Diem, H. Weill, *Thorax* 32, 281 (1977).

A response to critics of the NAS report was provided by Daniel Weiss, staff officer, Commission on Life Sciences, National Research Council. Weiss's comments were reported in the article.

—MARJORIE SUN