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Brush Wellman Briefing Outline on OSHA

1. There has never been any evidence of chronic or acute beryllium disease at the existing $2 \mu\text{g}/\text{M}^3$ air count level. The existing standard is demonstrably safe for preventing berylliosis disease. The real issue, therefore, is the question of carcinogenicity.
2. If beryllium is determined to be a carcinogen and so labelled and so regulated it would only be a matter of time until its usage would shrink to a point where it would no longer be a viable industry.
3. It is essential, therefore, that the question of carcinogenicity be determined only on the basis of sound scientific data, properly documented and thoroughly evaluated by objective scientists. --This has not been done.
4. The concept that, when in doubt, the regulator must always assume that a material is carcinogenic in order to protect workers lives is an oversimplification of the realities involved.
 - a. Epidemiologic evaluation of a presumed occupational excess showing of an observed over expected incidence of cancer is part art and part science. This cannot automatically be equated with increased mortality until all other confounding factors such as smoking, etc., are analyzed.
 - b. Loss of employment in middle age for employees and loss of invested savings for stockholders are real sufferings that have to be equated against the hypothetical nature of an unproven health hazard to employees.

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5. The NIOSH actions prior to, and after the public hearings have not been on a professional plane. Their marked biased and adversarial posture has been documented in the record by eminent scientists who testified at the hearing to this effect and by cross examination of NIOSH witnesses.
6. Both the human and animal data presented by NIOSH have been highly controversial and presented in a biased and uncritical manner.
7. The current NIOSH study is the third such study. The first two, which were negative, have been dismissed by NIOSH as having an inadequate latency period. No recognition is given to the fact that the cohort under study here is primarily an unusual workforce.
8. The excess of observed incidence over expected in the most recent study is slight and is confined almost totally to employees who worked in the 1940's. This was before installation of industrial hygiene controls and exposures were massive by contrast with post-1950 levels. The employees were wartime 4F's, a mobile workforce with different smoking habits, lifestyles and work health patterns from post-1950 work force populations.
9. Animal data presented has been from poorly conducted and improperly controlled experiments with inadequate peer review.
10. No recognition has been taken of the differing hazard potential of different forms of beryllium containing materials. Animals exposed to beryllium copper showed no tumors or adverse health effects of any kind. Over 75% of workers in the industry are exposed exclusively to beryllium copper.

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11. No recognition has been taken of species differentiation. Humans exposed to beryllium either have no adverse reaction or they develop berylliosis. Animals do not get berylliosis but do develop growths that are sometimes classified as tumors and by some doctors as malignant tumors.
12. Tumors seen in animals exposed to beryllium are of an entirely different cellular type than that seen in man. Human lung tumors spread rapidly while animal tumors don't spread at all.
13. In recognition of the importance of correctly identifying the carcinogenic potential of beryllium, and given the existence of adequate human data to allow such identification, total cohorts of both producers plants 1950/1975 and those of the fluorescent lamp industry 1940/1950 should be studied.
14. This should not be a case of maybe's or if's. It should be a positive yes or no. No industry should be written off on a maybe basis.

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