

ALUMINUM COMPANY OF AMERICA

ALCOA BUILDING

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OD, DSR, NIOSH



ALCOA

1987 December 15

Director, Division of Safety Research  
National Institute for Occupational Safety & Health  
944 Chestnut Ridge Road  
Morgantown, West Virginia 26505

NIOSH

1987 DEC 28 AM 9:21

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Dear Sir:

This is in response to the proposed rule for respirator certification appearing in the Federal Register on August 27, 1987.

Several thousand employees regularly use and rely upon respiratory protection in Alcoa and, of these employees, most use disposable/single-use respirators for dust exposures. The proposed rule will have a traumatic and negative impact on our industrial hygiene efforts. Specifically, the rule would lead to changes in respirator design which would ultimately erode the overall effectiveness of our respiratory protection programs.

Our suppliers have indicated that few, if any, of their respirators could pass the requirements proposed in 42 CFR Part 84. If the proposed rule is implemented, the respirator manufacturers would need to redesign their respirators to meet the new criteria even though their products provide adequate filtering efficiency and workplace protection factors. Our employees would face a complete change in available respiratory protection. These newly designed respirators would be heavier, more bulky, and exhibit increased breathing resistance. The institution of any change in personal protective equipment normally leads to problems of employee acceptance and, in this case, the situation would be aggravated by introduction of less comfortable respirators. Any improvements made in the filtering efficiency and reliability of the masks would be more than offset by employee refusals to wear the newly designed respirators.

The particulate filter test for air purifying respirators specifies preconditioning in high humidity and a 0.2-0.3 micron challenge aerosol. Many currently available respirators, including most single use respirators, would not pass this test. Furthermore, these stringent criteria necessitate higher efficiency filters; this will increase breathing resistance and lead to greater leakage at the facial seal. Again, the proposed improvements in filtering efficiency would be more than offset by decreased workplace protection factors.

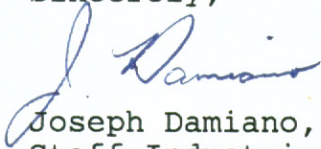


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The proposed rule requires workplace testing prior to certification. Certainly, this is more meaningful than the current laboratory testing, and this effort should help improve the overall quality of certified respirators. We understand the field test methodologies remain in development, and we suggest that workplace testing be deferred until these methodologies have been reviewed and validated. Also, the proposed rule states that all workplace testing be conducted in mining sites; certainly the applicability of the certification program would be greatly enhanced if this were expanded to general industry.

Finally, in view of the controversy and technical difficulties surrounding this subject, we urge NIOSH to convene a consensus standards group charged with revising its certification rules. Certainly, representatives from such organizations as OSHA, MSHA, AIHA, ACGIH, ISEA, and ANSI should participate.

Sincerely,



Joseph Damiano, CIH, CSP  
Staff Industrial Hygienist

/pdn