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Rec'd Pocket
1/6 Office

Director, Division of Safety Research
NIOSH
944 Chestnut Ridge Road
Morgantown, WV 26505

Dear Mr. Moran,

I am a practicing certified industrial hygienist for the United States Air Force. Most of my work is in the actual workplace, not in a lab. I work with the users of the respirators, evaluate their occupational hazards and recommend protective devices. I have seen a wide variety of occupational environments and hazards ranging from minimal to very hazardous.

I was recently made aware of proposed 49 CFR Part 84 by ISEA. While I agree with most of the comments in Mr. Paul Koches' letter of September 21, 1987, several items are of particular concern as a field industrial hygienist.

Individual user fit testing is essential to selection of the brand and size of respirator. While some brands fit more universally, facial variation, movement, and talking make each person unique. Only with a variety of brands and sizes to choose from am I able to find masks to fit everyone. It is the very variation in manufacturer "standards" which allow me to have this variety to choose from. Supply and demand will force the manufacturers to make masks which fit without the necessity for "standard faces" mandated by regulations.

While I recognize NIOSH is trying to get out of the respirator certification business there remains a real need for standards of performance and an independent testing and certifying organization for industrial use respirators. Currently NIOSH certification is the only means I have for a confidence level in the performance and effectiveness of a respirator.

Field fit testing procedures must be simple and expedient if they are to be conducted by anyone besides a few well equipped organizations. In most situations it is not feasible to field test a respirator in the work environment. The costs of procuring the necessary equipment would be prohibitive and time required for testing greatly increased. I believe most respirator users simply would not use a fit test procedure more complex than the current qualitative techniques used by most field professionals.

From my experience user acceptance of a respirator is still the single most important factor in providing the user respiratory protection. Protection factor and filter selection are the concern of the servicing health professional, but user acceptance and subsequent respirator use is the only way

respirators provide any protection. While there may be problems with assuring protection factors with high confidence levels which need to be worked out, the worker is more interested in comfort, mobility and visibility. For example, the disposable respirators are very well accepted by users. I have seen too many workers resist using dual cartridge respirators and accept using disposable respirators.

Rating the protection factor is important but when choosing a confidence level consider the confidence level of predicted use by the worker (70%), proper care and maintenance of the respirator (50%), level of fit from the beginning to the end of the day, and the confidence level of the results of the ambient air sampling (typically 50-80% in a field situation).

What is needed is a standard for evaluating, rating, and certifying the respirators which are chosen by the workers. Disposable respirators, both dust/mist/fume and organic vapor/paint, are popular and well accepted by the worker. These are often appropriate where contaminant concentration is usually near the action level but only occasionally moves above the TLV or PEL. Cartridge type half face, full face and powered air respirators obviously become necessary at higher contaminant levels and finally supplied air or SCBA at the highest contaminant levels.

Standards by which manufacturers design respirators are important, but so are ratings and certifications for respirators the worker chooses to use. Please keep me and my fellow industrial hygienists informed on the status of this or other proposed changes to standards so we can provide relevant inputs and comments.

Sincerely,



KEITH D. CHANDLER

Certified Industrial Hygienist, 3095