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Docket Office, Docket H-049
U.S. Department of Labor
Occupational Safety & Health Administration
Room N2625
200 Constitution Avenue N.W.
Washington, DC 20210

OSHA
DOCKET OFFICER
DATE FEB 28 1995
TIME _____

- Re: 1. Appendix A paragraph 11C4(h) and 11C4(j) of the proposed Respiratory Protection Standard 29 CFR 1910.134, *Federal Register*: November 15, 1994: Requirement for three QNFT fit tests.
2. Ibid. Appendix A paragraph 11A1. and 11A11.

Gentlemen:

This letter is being written to address three items relevant to the referenced standard. First is OSHA's request for information on how often annual fit tests result in the changing of the previously assigned respirator for a new model or size, second is the requirement for each employee to undergo three independent quantitative fit tests (QNFT), and third is the subject of encouraging employees to pick respirators and to complain about comfort.

Our facility uses a TSI Portacount fit tester to perform quantitative fit testing on about 154 employees. Twenty of these employees are encompassed by regulations that require semiannual testing. In answer to your inquiry about annual changes in mask model or size, we experience 1 to 3 changes per year. Incidentally, we use adapters that enable us to test the employees in their own masks, since this is more sanitary and allows testing the actual mask as well as the model and size.

Our test protocol, which is very close to the recommended standard, requires 19.8 minutes including startup and inhalation/exhalation valve check, acclimatization, and actual test. This computes to about 57.4 hours per year for actual testing. This time does not include repeat tests caused by instrument problems or test failure, employee time getting to and from the test, tester's time, filing and paperwork requirements, etc..

The proposed requirement for each employee to undergo three independent QNFT instead of one represents an excessive and technically unjustifiable financial burden. Respirator fit testing is already a significant financial burden due to the time required to do a



single test. In addition to the time away from work required of each employee who must wear a respirator, there is also the expense of the test operator's wages and overhead costs of the building facilities and materials used to conduct fit testing. The tripling of these expenses would cause significant dollars to be spent with no benefit to employees.

It is particularly perplexing that OSHA will require only one qualitative fit test (QLFT) while requiring triplicate testing for the more precise quantitative test. In our company's case, we would have to expend over 3 weeks of additional labor to meet this requirement with no additional protection resulting. The cost on a national basis would be staggering and no technical justification exists.

In the Proposal, OSHA describes the conventional QNFT using a chamber and aerosol generator as the "standard" QNFT by which all other fit testing techniques are compared. All of the currently accepted QLFT have been validated for a fit factor of 100 using the standard QNFT. If you pass a properly conducted QLFT you can claim a fit factor of 100. The actual fit factor may be higher than 100, but an employer cannot claim a higher value because the QLFT was only validated for 100.

Since all QLFT are validated with the standard QNFT, they can only be considered substitutes for QNFT. They cannot under any circumstances be considered better than the technique used to validate them. How can OSHA insist on three QNFT and at the same time permit one QLFT to be adequate? If a QNFT instrument were re-programmed to only provide a pass or fail indication, would one fit test be acceptable?

The concept of requiring three QNFT dates back to the ANSI Z88.2 Standard in use when OSHA first developed fit testing regulations in the early 1980's. OSHA borrowed heavily from that standard during the promulgation process. That ANSI standard allowed employers to elevate the protection factor claimed for individuals based on a QNFT. Since elevating the claimed protection factor was an inherently risky proposition, ANSI reasoned that three confirming QNFT should be required to justify doing so. One QNFT or QLFT was sufficient to claim a normal protection factor. At that time, since QNFT was prohibitively expensive and time consuming, no one thought there was any reason to do QNFT unless elevating the protection factor was desired. This is also where the concept of saving time by doing a QLFT prior to the QNFT originated.

When OSHA developed respiratory protection regulations, they rejected the concept of elevating protection factors under any circumstances. However, the complementary requirement for three QNFT was somehow disassociated and retained. The current ANSI standards contain no such requirements.



Finally, we need to comment on the subject of allowing the employee to "pick the most comfortable respirator from a selection including respirators of various sizes from different manufacturers." Although we keep four different brands (with all sizes of each) we try to fit most of our employees to one brand. At this time, we have only 4 employees who are using other brands. This simplifies training and inventory and controls cost. In the 20 years that we have been fitting employees with respirators, we have never experienced a complaint about a respirator causing a specific pain from a pressure point or a bad fit. By nature, respirators are not known for their "comfort". By specifically inviting employees to "pick the most comfortable respirator" and to comment on comfort after two weeks, OSHA is inviting a host of neurotic input. This would require voluminous retesting (at three tests each?) with no advantage gained and many unhappy employees and employers. If a mask were to cause specific pressure point sores, it would not fit on the first test.

On behalf of Lord Corporation and American industry in general, OSHA should delete paragraphs 11A1., 11A11., 11C4(h) and 11C4(j) from Appendix A as proposed. They will force employers to spend significant resources complying with requirements which are technically unjustified and provide no benefit to employees.

Sincerely,

A handwritten signature in black ink that reads "Wilson A. Barker". The signature is written in a cursive, flowing style.

Wilson A. Barker
Facility Environmental, Safety and Health Officer