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Ms. Diane D. Porter  
Ass't. Dir. for Legislation and Policy Coordination  
NIOSH - CDC  
Atlanta, GA 30333

Dear Ms. Porter:

I have reviewed the September 15, 1992 Working Draft "A Performance Evaluation of DM and DFM Filter Respirators Certified for Protection Against Toxic Dusts, Fumes, and Mists." Your cover letter of December 14 indicated that a letter outlining some concerns of the respirator industry was enclosed along with the NIOSH-CDC draft. I did not receive this enclosure, but I see no need to review it in order to respond to the questions you raised.

My overall reaction to the NIOSH-CDC draft document is that it is far too long and detailed for ready comprehension of its contents. Most of the contents of this draft should be relegated to an Appendix, and a much crisper and more readable document (focussing on the essential issues and data supporting the conclusions drawn) should be prepared.

With respect to the five explicit issues raised in your letter, I offer the following commentary:

1. The explicit and implicit assumptions supporting the evaluation: The document identifies the key assumptions and discusses them quite adequately.
2. The four independent research studies on filter leakage: The four studies were performed by very well qualified and highly respected investigators, and there is no reason to question either the validity of the data they generated, or the NIOSH staff's treatment and analyses of these data.
3. The criteria by which data were selected from these studies to conduct the evaluation: The document was based upon a reasonable selection and analysis of the data.
4. The formulations and calculations used in the evaluation: These were clearly stated and appropriate.
5. The conclusions of the evaluation: The conclusions in the document are reasonable, sound, and straightforward. They are well justified by the objective data.

I have attached a list of some specific comments and suggestions that may prove useful to NIOSH in revising and redrafting the document.

Very truly yours,

Morton Lippmann, Ph.D.  
Professor

ML:fl

Attachment

### Specific Comments

- p. 1, ¶ 3, lines 2-4 This is a gross overstatement. A "momentary lapse in respiratory protection" cannot cause "serious injury or death" in "hundreds of thousands of American workers".
- p. 1, ¶ 5, line 2 The abbreviations "DM" and "DFM" are used before they are defined.
- p. 19, ¶ 1, line 9 Insert "than average" after "higher".
- p. 19, ¶ 2, line 4 Insert "nearly" before "all".
- p. 20, ¶ 5, line 2 Change "detect" to "preclude".
- p. 39, ¶ 3, line 4 Change "in" to "is".
- p. 43, ¶ 2, line 2 Change "in" to "is".
- p. 103 - Section 12 This section commences with a list of 7 "pertinent questions". It then explicitly addresses a series of 11 explicit questions, five of them apparently being related to the second bullet in the initial list of 7. Eliminate the redundancy and confusion.
- p. 104, ¶ 4, lines 4,5 The extent of dependence on "these filters" should be specified. How many workers use them regularly, as opposed to using them occasionally in situations involving process upsets?
- p. 108, ¶ 5 This discussion sounds pretty foolish. One doesn't need data to understand that prevention of face-seal leakage cannot overcome filter penetration.