

June 12, 1996

NIOSH Docket Office Robert A. Taft Laboratories M/S C34 4676 Columbia Parkway Cincinnati, OH 45226

Dear Sir or Madam:

The purpose of this letter is to comment on the Federal Register Notice received by fax on May 28, 1996 (Federal Register: May 16, 1996, Volume 61, Number 96).

Gas and vapor testing requirements..

The whole gas and vapor test schedule should be reviewed. There are too many inconsistencies especially in the equilibration tests. For example some of the gas tests are conducted at the 25 and 85% humidity of the equilibration (hydrogen fluoride, formaldehyde) while others are conducted at 50 % relative humidity (chlorine, hydrogen sulfide). Some equilibrated samples are tested at half the flow while others are tested at the full flow. Actually the equilibration is a long and burdensome step which should be discarded all together. No other country uses such a procedure. I think our gas and vapor tests should be similar to the European standards which allow for 3 challenge levels of exposure. However, the test gas of hydrogen cyanide should not be used since it is no longer available in pure form in small quantities.

Use of independent laboratories

The last time I checked, the Testing and Certification Laboratory was 4 months behind in respirator testing. This is due primarily to the great influx of foreign submissions as well as a big increase in domestic respirator manufacturers. Since the staffing level has remained constant, a testing back log has developed and continues to grow larger. This, I am sure, causes frustration to the manufacturers who are anxious to place new and safer products in the market place.

There is a solution to this problem. We, at Miller-Nelson Research Inc., have been testing respirators for 25 years. We are able to perform all the gas and vapor tests currently performed by NIOSH. Frequently, many of the manufacturer's pre submission tests are performed by us. Among the list of our clients are 3M, MSA, Scott, Racal, Moldex, Survivair, Gerson, U.S. Safety, Willson, to name a few. In addition, all of these manufacturers, as well as NIOSH, use our air flow -temperature- humidity control systems. We are well aware of the gas generation and calibration techniques. In addition, our personnel have authored 2 books (Controlled Test Atmospheres, Gas Mixtures - Preparation and Control) and over 50 journal articles on gas mixture preparation and respirator testing.

JUN 18 1996

The cost for all this experience and expertise? On the average a single as received test usually costs \$150 -\$200 if 7 or more tests are required (the usual submission number). This could be slightly more depending upon your reporting requirements. Our normal turnaround time is 1 week (except during a 2 week vacation period).

I will briefly answer the questions outlined on page 24742.

- 1. Are private sector laboratories capable of conducting tests? Yes. See above
- 2. What qualifications are required? NIOSH should set the requirements. I really don't know of anything today that would exactly fit this situation. A complete ISO 9000 certification would be burdensome and expensive for the small laboratory and may not really fit the situation.
- 3. Should NIOSH assign a manufacturer a certain laboratory? No. The manufacturers should be able to choose or change if they deem it necessary.
- 4. What type of NIOSH monitoring is required? NIOSH should set the format and requirements of the reports. In addition, unknown samples should be periodically submitted. Also annual cite visits may be undertaken.

I hope these comments have been beneficial. Please give me a call if you have any questions.

Sincerely,

Gary O. Nelson

President

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