54-307

American Iron and Steel Institute

1101 17th Street, N.W.
Suite 1300
Washington, D.C. 20036-4700
(202) 452-7100
Fax (202) 463-6573

April 14, 1995

OSHA
DOCKET OFFICER
DATE APR 14 1995
TIME

Docket Office
U.S. Department of Labor
Room N2625
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Re: Proposed Respiratory Protection Rule

Dear Sir or Madam:

Please file the enclosed written comments of the American Iron and Steel Institute on the proposed respiratory protection rule in Occupational Safety and Health Administration Docket No. H-049.

Sincerely,

Peter Hernandez /R/

Peter A. Hernandez

Enclosure

54.307A

UNITED STATES DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

OSHA
DOCKET OFFICE
DATE APR 14 1995

29 C.F.R. Parts 1910, 1915, and 1926	)	
	)	
RESPIRATORY PROTECTION STANDARDS	)	Docket No. H-049
	)	
59 Fed. Reg. 58884 (November 15, 1994)	)	

COMMENTS OF
AMERICAN IRON AND STEEL INSTITUTE
1101 17th Street, N.W.
Suite 1300
Washington, D.C. 20036

April 14, 1995

TABLE OF CONTENTS

Page

I. Introduction 1

II. Summary 1

III. General Comments 1

A. The Proposed Respirator Rule Is Antithetical To The Prevailing Spirit Of Making Government Regulation More Efficient 1

B. A New Respirator Standard Is Not Reasonably Necessary Or Appropriate To Reduce A Significant Risk Of Material Health Impairment. 2

C. OSHA's Analysis Of The Economic Impact And Feasibility Of The Proposed Standard Is Inadequate 3

1. OSHA Failed to Evaluate the Feasibility of the Proposed Standard on Specific Industries 3

2. OSHA Failed to Consider Numerous Specific Costs 4

D. The Methods Of Compliance Provision Is Inappropriate In A Respiratory Protection Standard, But If It Is To Be Included, It Must Be Subjected To Public Comment 7

1. OSHA has a Legal Obligation to Provide Interested Persons With an Opportunity to Comment On the Methods of Compliance Provision 7

2. OSHA Failed to Provide a Technological and Economic Feasibility Analysis on the Methods of Compliance Provision 8

3. The Hierarchy of Controls Requirement Imposing Engineering Controls Should be Removed from the Respirator Standard 8

Page

E. Requiring Compliance With "Hazardous Exposure Levels" Would Unlawfully Create New Permissible Exposure Levels For Air Contaminants 9

1. The Proposed Rule Should Require Only That Respirators Ensure Compliance With Permissible Exposure Limits and the General Duty Clause of the OSH Act 10

a. Application 10

b. Scope 11

2. Achieving Threshold Limit Values, Recommended Exposure Levels, and Limits Based on Material Safety Data Sheet Information Goes Beyond the General Duty Clause 12

3. Requiring Compliance With Hazardous Exposure Levels Unlawfully Creates New PELs 13

4. The "Hazardous Exposure Levels" Definition is an Unnecessary Addition to the Respirator Standard . . 14

F. Substantive Provisions On Respirator Use In Other Rules Need To Be Coordinated With This Proposal 14

IV. Specific Comments 14

A. Section (a) Scope and Application 15

B. Section (b) Definitions 16

C. Section (c) Respirator Protection Program 17

D. Section (d) Selection of Respirators 18

E. Section (e) Medical Evaluation 20

F. Section (f) Fit Testing 20

		Page
G.	Section (g) Use of Respirators	22
H.	Section (h) Maintenance and Care of Respirators	24
I.	Section (l) Supplied Air Quality and Use	25
J.	Section (j) Identification of Filters, Cartridges, and Canisters	25
K.	Section (k) Training	26
L.	Section (l) Respiratory Protection Program Evaluation	26
M.	Appendix A: Fit Testing Procedures (Non-Mandatory)	27

I. Introduction

The American Iron and Steel Institute ("AISI") is pleased to submit these comments in response to the new standard on respiratory protection proposed by the Occupational Safety and Health Administration ("OSHA") in the Notice of Proposed Rulemaking at 59 Fed. Reg. 58884 (November 15, 1994).

AISI is a non-profit trade association whose member companies account for approximately 70 percent of domestic raw steel production. Ensuring that employee health is protected in a feasible and practicable manner is a matter of great importance to AISI member companies, which for decades have had extensive industrial hygiene programs to protect the health and safety of their workers.

II. Summary

AISI is disappointed with the proposed OSHA Respiratory Protection rule. The proposed rule does not comply with the rulemaking requirements of the Occupational Safety and Health Act (OSH Act), would impose enormous costs on the steel industry, and would not provide additional benefits to employee health.

Among the proposed rule's most significant problems are the following. First, OSHA has included an unnecessary and extremely burdensome engineering controls requirement, but has failed to allow comment on it. Second, OSHA proposes to create, in effect, new permissible exposure levels for hundreds of air contaminants without making individual findings on significant risk or feasibility, in contravention of the OSH Act and controlling court decisions. Third, the proposed rule is not reasonably necessary or appropriate to protect employee health. Finally, OSHA has failed to adequately assess the economic feasibility of the proposed rule. OSHA should withdraw the proposed rule and radically revise it.

III. General Comments

A. The Proposed Respirator Rule Is Antithetical To The Prevailing Spirit Of Making Government Regulation More Efficient

The proposed new respirator rule would impose complex requirements that would not improve the standard, only make it more difficult to understand and follow. Broad-based calls for regulatory reform have focused on ending the proliferation of unnecessary rules such as this one. As President Clinton recently emphasized in a memorandum to heads of departments and agencies, "businesses face a profusion of overlapping and sometimes conflicting rules," and too often, rules are drafted with

such detailed requirements that "the objectives they seek to achieve are undermined."[1]

At a time when five of every six Americans want "fundamental change" in Washington,[2] the proposed rule represents business as usual. It is completely antithetical to the prevailing spirit of making government more effective, efficient and responsive. Among other problems, the proposed rule would require employers to make costly investments in engineering controls, even though respirators can protect against employee health just as effectively in the absence of such controls. It would also create, in effect, new permissible exposure levels for hundreds of substances, without any showing that a significant risk is present or that compliance with these limits is technologically or economically feasible. Generally, the proposed rule is so excruciatingly detailed that it would hinder more than it would help employer efforts to protect employee health.

OSHA should withdraw the proposed rule and submit a simpler one consistent with the American people's desire to "clear the thicket of regulation."[3] The proposed rule is particularly untenable when the cumulative regulatory burden faced by industries is considered. A 1993 study concluded that the cost to the private sector of complying with regulations is at least $430 billion annually -- 9 percent of our gross domestic product.[4]

B. A New Respirator Standard Is Not Reasonably Necessary Or Appropriate To Reduce A Significant Risk Of Material Health Impairment.

The proposed respirator rule is not only regulatory excess, it also fails to satisfy the requirements of the Occupational Safety and Health Act. Under Section 3(8) of the OSHA Act, OSHA must demonstrate that a new standard is "reasonably necessary or appropriate to provide safe or healthful places of employment." 29 U.S.C. § 652(8). OSHA cannot promulgate a new standard simply because it believes the new standard reflects every conceivable protection measure which might be beneficial. The United States Supreme Court has held that Section 3(8) requires

---

1 Memorandum for Heads of Departments and Agencies from President Clinton on Regulatory Reinvention Initiatives, March 4, 1995. See also Exec. Order No. 12866 (1993).

2 "From Red Tape to Results: Creating Government that Works Better and Costs Less," Report of the National Performance Review (1993) at 1.

3 Id. at 32.

4 Id.

OSHA to find that an existing standard leaves a "significant health risk" in the workplace before promulgating a new health standard. Industrial Union Dept., AFL-CIO v. American Petroleum Inst., 448 U.S. 607, 615 (1980). OSHA has not demonstrated that the current respirator standard leaves a significant risk of material health impairment.

In attempting to explain the need for a new respirator standard, OSHA suggests that the existing standard is inadequate because it is "outdated" and does not reflect "current technology." The mere fact that an existing standard has not recently been amended, however, does not mean it is inadequate. OSHA also claims that the current respirator standard needs to be revised because it is one of the most frequently cited health standards. The reasonable response to noncompliance with the existing standard, however, is not to make it more complex.

C. OSHA's Analysis Of The Economic Impact And Feasibility Of The Proposed Standard Is Inadequate

Section 6(b)(5) of the OSH Act provides that, in promulgating workplace standards, OSHA shall select the standard "which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity" as a result of workplace exposures. 29 U.S.C. § 655(b)(5) (emphasis added). OSHA must show by substantial evidence that the proposed standard is feasible. AFL-CIO v. OSHA, 965 F.2d 962, 980 (11th Cir. 1992). With respect to economic feasibility, OSHA must provide a reasonable assessment of the likely range of costs of its standard, and the likely effects of those costs on the industry. Id. at 982. OSHA's analysis of the economic impact and feasibility of the proposed standard is inadequate.

1. OSHA Failed to Evaluate the Feasibility of the Proposed Standard on Specific Industries

OSHA must examine the economic feasibility of the proposed standard on each industry individually. AFL-CIO at 980-982. In the preamble OSHA claims that the standard is feasible for each industry sector at the two-digit SIC code level. 59 Fed. Reg. 58893 (1994). OSHA however, has made no attempt to show the ability of specific industries at the four-digit SIC code level to meet the standard. OSHA has concluded, without any elaboration, that its analysis at the two-digit SIC level is reflective of the actual impact on the average firm within each subsector. But "analyzing the economic impact for an entire sector [can] conceal particular industries laboring under special disabilities and likely to fail as a result of enforcement." AFL-CIO at 982.

OSHA's analysis in particular fails to adequately represent the economic impact of the proposed respirator standard on specific industries such as the steel

industry. Many of the new requirements in the rule (e.g., medical evaluations, quantitative fit-testing, qualitative fit-testing, and employee training) will result in lost employee time and consequently will reduce productivity. The costs of lost employee time are disproportionately high in the case of industries like the steel industry. This is not reflected in OSHA's analysis. OSHA's Preliminary Regulatory Impact and Regulatory Flexibility Analysis estimates that the hourly compensation of a production worker is $12.56.[5] In the steel industry, however, as of January 1995, average hourly compensation was $22.88 and average total employment cost per hour for wage employees was $33.91.[6]

2. OSHA Failed to Consider Numerous Specific Costs

OSHA's analysis of the economic impact of the proposed respirator rule is also inadequate because OSHA failed to consider numerous costs that the proposed rule would impose on industry. These include the following:

-- Engineering Controls: Section (a)(1) of the proposed rule requires that control of air contaminants be accomplished as far as feasible by use of engineering controls, but OSHA failed to evaluate their cost. Within the steel industry, the cost of installing even simple engineering controls is many times greater than the annual cost of respirator programs. Thus, OSHA's failure to evaluate engineering control costs means that only a fraction of the total costs of the proposed rule have been considered. Engineering controls that are typically used for atmospheric contaminants consist of local exhaust ventilation and exhaust air cleaning systems. Due to the enormous amounts of raw material utilized in the steelmaking process (thousands of tons daily), large volumes of air are exhaust ventilated from these facilities. The cost to exhaust ventilate a standard cubic foot of air per minute from steel industry meltshops is approximately $70. Primary exhaust ventilation systems for typical steelmaking vessels require air movement volumes of 200,000 to 300,000 standard cubic feet per minute ("SCFM"). Some vessels require two systems each with capacities within this range. Whole shop exhaust ventilation systems from meltshops can require four to five times these amounts, exceeding 1,000,000 SCFM. For example,

---

5 OSHA, Preliminary Regulatory Impact and Regulatory Flexibility Analysis of the Proposed Respiratory Protection Standard, V-12 (April 19, 1994). It should be noted that this analysis was not placed in the docket and made available to the public until March 27, 1995.

6 Based on statistics collected regularly by AISI from reporting companies submitting data on a confidential basis.

$45 million was needed to upgrade the exhaust ventilation in a large meltshop. Upgrades of this magnitude would be required to comply with the proposed rule, which effectively creates new PELs for hundreds of substances, by the incorporation of undocumented and unnecessarily restrictive TLVs and RELs.

-- Costs of Purchasing Respirators: OSHA states that it does not include the cost of purchasing respirators in its analysis of costs because the requirement to wear respirators comes from other standards or specific conditions. 59 Fed. Reg. 58892 (1994). While it is true that approximately 25 substance-specific standards require the purchase of respirators,[7] it is the respirator standard which requires that respirators be purchased with respect to the unlimited and undetermined number of other substances for which "hazardous exposure levels" are imposed. Accordingly, OSHA is obligated to evaluate the cost of purchasing respirators. In evaluating such costs, OSHA must take into account the fact that the proposed respirator rule would expand the number and type of respirators which must be purchased. The proposed rule requires that the employer provide a selection of respirators from an assortment of at least three sizes for each type of facepiece and from at least two different manufacturers. 59 Fed. Reg. 58939. This means that employers would have to purchase at least two types of facepieces for each type of respirator, including SCBA respirators, supplied air respirators, and escape respirators.

-- Required Medical Examinations: Under the existing standard, annual medical examinations are suggested but not required. The proposed rule would require that every employee who might wear a respirator for five hours in any work week receive a special annual medical examination. Nevertheless, OSHA estimates that the cost of compliance with the medical provisions under the two standards would be the same. The cost of annual medical examinations needs to be assessed, bearing in mind that more employees than ever need to receive medical examinations because now employee job responsibilities tend to shift more rapidly.

-- Fit Testing: The costs of enhanced requirements for qualitative fit testing are underestimated, particularly costs associated with lost employee time. OSHA's Preliminary Regulatory Impact and Regulatory Flexibility Analysis ("the Analysis") estimates that the hourly

---

[7] See, e.g., the standard for vinyl chloride at 19 C.F.R. § 1910.1017 and the standard for lead at 29 C.F.R. § 1910.1025.

compensation of a production worker is $12.56.[8] In the steel industry, however, as of January, 1995, average hourly compensation was $22.88 and average total employment cost per hour for wage employees was $33.91.[9] Moreover, the Analysis estimates that qualitative fit testing would take about only one-half hour for each tested employee. In fact, fit testing of a steel industry employee requires that employee to be away from work for a period of two to three hours. This includes additional transportation time which may be needed for an employee to travel to and from the fit testing location (a typical steel plant covers thousands of acres). In addition, the analysis does not consider that while an employee is being fit tested, a replacement worker may be required who may be paid at an overtime rate.

Costs for quantitative fit testing have been completely ignored, even though there are circumstances where quantitative fit-testing is the only kind of fit-testing which is permissible (i.e., where full facepiece respirators are used in atmospheres with concentrations greater than ten times the hazardous exposure level). The unnecessary requirement that three successful fit tests be performed in order to complete quantitative fit-testing significantly increases its cost.

-- Employee Training: The proposed OSHA employee training requirements would expand upon the training required by the existing standard. The proposed standard would require employees to receive annual training which would include instruction as to the nature of respiratory hazards, procedures for inspection, the donning and removal of respirators, the maintenance and care of respirators, the use of respirators in emergency situations, the contents of the respirator standard, and the contents of the employer's written respirator protection program. OSHA has greatly underestimated the costs of such annual training.

For example, OSHA has underestimated costs associated with lost employee time. OSHA has used an hourly compensation rate of $12.56 per employee, but average compensation in many industries is much higher ($33 per hour in the steel industry). OSHA also has underestimated the number of employees who would need to be trained, due in part to the increased need for employees to be able to handle a

---

8 Preliminary Regulatory Impact Analysis at V-12.

9 See note 6, supra.

wide variety of work assignments (multicrafting). OSHA also has ignored the impact of other OSHA rules (e.g., the Hazardous Waste Operations and Emergency Response ("HAZWOPR") Rule, 29 C.F.R. § 1910.120 and the Confined Spaces Rule, 29 C.F.R. § 1910.146), that increase the number of employees who need to be trained for respirator usage.

D. The Methods Of Compliance Provision Is Inappropriate In A Respiratory Protection Standard, But If It Is To Be Included, It Must Be Subjected To Public Comment

1. OSHA has a Legal Obligation to Provide Interested Persons With an Opportunity to Comment On the Methods of Compliance Provision

In the preamble to the proposed standard, OSHA states that the methods of compliance provision, 29 C.F.R. § 1910.134(a)(1), which mandates that control of air contaminants be accomplished as far as feasible by engineering control measures, is not a subject of this rulemaking. AISI submits that an engineering controls requirement is not appropriate in a respirator standard at all, but if this provision is to be included, then OSHA has a legal obligation under Section 6(b)(2) of the Occupational Safety and Health Act (the "OSH Act"), 29 U.S.C. § 655(b)(2), and the Administrative Procedure Act, 5 U.S.C. § 553, to provide interested persons with an opportunity to comment on it.

Section 6(b)(2) of the OSH Act requires that OSHA provide interested persons an opportunity to submit written data and comments on a proposed rule in total. OSHA cannot include a provision on engineering controls within the proposed respiratory rule and then fail to provide interested persons opportunity to comment on it. This is particularly true here, where the public has never been given an opportunity to comment on the provision in question. The methods of compliance provision was originally promulgated as part of a national consensus standard pursuant to Section 6(a)(1) of the OSH Act. Section 6(a)(1) allowed OSHA to promulgate occupational safety or health standards, without subjecting the standard to comment, for a period of two years beginning with the effective date of the Act. Now that this two year period is over, OSHA cannot propose to include the methods of compliance provision as part of a new rulemaking without regard to its obligations under Section 6(b) of the OSH Act and the Administrative Procedure Act.

In the preamble OSHA tried to justify forbidding comment on the methods of compliance provision on the ground that OSHA is dealing with this subject in another rule. 59 Fed. Reg. 58895 (1994). If so, then the provision should be removed from

this rule. Otherwise, OSHA must allow comment on this provision and evaluate the associated costs.

2. OSHA Failed to Provide a Technological and Economic Feasibility Analysis on the Methods of Compliance Provision

If OSHA intends to include the methods of compliance provision within the standard, it must include an analysis of the economic and technological feasibility of engineering controls. OSHA has done no such analysis. This omission is particularly egregious because the engineering control requirements impose a greater economic burden on employers than all other requirements of the standard combined. Within the steel industry, the cost of instituting, operating, and maintaining engineering controls would be monumental. See General Comment C, 2, supra.

3. The Hierarchy of Controls Requirement Imposing Engineering Controls Should be Removed from the Respirator Standard

AISI believes the hierarchy of controls provision imposing engineering controls should be removed entirely from the respirator standard. A provision requiring engineering controls is clearly incongruous in a standard otherwise focused entirely on respirators -- a different method of compliance. Moreover, there is no legal basis for OSHA to specify a preference for a particular method of control. Section 6(b)(5) of the OSH Act requires that "whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired." 29 U.S.C. § 655(b)(5).

This hierarchy of controls provision would force employers to make expensive capital investments in engineering controls, even if respirators would protect employee health just as effectively without them. In the steel industry, employers in many instances can effectively reduce air contaminant exposures to acceptable levels using respirators on an as-needed basis, whereas engineering control costs can be overwhelming. Imposing a hierarchy of controls standard on the steel industry serves only to guarantee an inefficient allocation of resources. OSHA should adopt a more flexible, performance-oriented approach that allows employers to comply with PELs through the use of any combination of engineering controls, work practices, and/or respiratory protection.

E. Requiring Compliance With "Hazardous Exposure Levels" Would Unlawfully Create New Permissible Exposure Levels For Air Contaminants

OSHA defines the term "hazardous exposure level" as:

(1) The permissible exposure limit (PEL) for the hazardous chemical in 29 C.F.R. Part 1910, Subpart Z, of OSHA's General Industry Standard; or

(2) If there is no PEL for the hazardous chemical, the Threshold Limit Values (TLV) recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) in the latest edition of Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment; or

(3) If there is no PEL or TLV for the hazardous chemical, the NIOSH Recommended Exposure Limit (REL); or

(4) If there is no PEL, TLV, or REL for the hazardous chemical, an exposure level based on available scientific information including material safety data sheets.

The "hazardous exposure level" concept is then used in a number of places within the proposed rule to define employer obligations:

-- Paragraph (d)(2) requires that employers shall obtain and evaluate relevant hazardous exposure levels for each work situation;

-- Paragraph (d)(8) provides that air-purifying respirators may be used for a hazardous chemical with poor or inadequate warning properties if the odor or irritation threshold is not in excess of three times the hazardous exposure level and there is no associated ceiling limit;

-- Paragraph (f)(1) provides that the employer shall ensure that the respirator selected fits the employee well enough to reduce employee exposures inside the mask to below the hazardous exposure level;

-- Paragraphs (f)(6)(i)(A) and (B) provide that employees may not wear tight fitting air-purifying respirators that have

quarter and half-mask facepieces and that pass qualitative or quantitative fit testing in atmospheres greater than ten times the hazardous exposure level;

-- Paragraph (f)(6)(ii)(A) provides that employees may not wear tight fitting air-purifying respirators that have full facepieces and that pass qualitative fit-testing in atmospheres greater than ten times the hazardous exposure level;

-- Paragraph (f)(6)(ii)(B) provides that employees may not wear tight fitting air-purifying respirators that have full facepieces and that pass quantitative fit-testing in concentrations greater than fifty (50) times the hazardous exposure level.

1. The Proposed Rule Should Require Only That Respirators Ensure Compliance With Permissible Exposure Limits and the General Duty Clause of the OSH Act

Critical problems with the proposed rule arise from its application and scope.

(a) Application

First, the application of the rule is described differently in (a) the preamble and (b) the rule itself. In the preamble, OSHA writes that it interprets Paragraph (a)(2) of the rule as "clearly requiring the use of respirators in the absence of engineering controls whenever employee exposures would exceed an OSHA permissible exposure limit (PEL) or warrant a 5(a)(1) citation under the OSH Act." See 59 Fed. Reg. 58895 (1994). In the preamble OSHA adds a third application: this rule will apply "whenever an employer requires any employee to wear a respirator, regardless of the exposure level and whether the substance is regulated." Id. Thus the preamble specifies three circumstances under which the rule will apply: (1) exposures exceed a PEL; (2) exposures create a serious recognized hazard; and (3) an employer requires any employee to wear a respirator for any reason.

In contrast, Paragraph (a)(2) of the rule describes the rule's application as follows: "Respirators shall be provided by the employer when such equipment is necessary to protect the health of the employee." 59 Fed. Reg. 58939 (1994). Paragraph (a)(2) provides no further explanation. Paragraph (b), however, defines the term "hazardous chemical" as a substance that meets the OSHA Hazard Communication Standard (29 C.F.R. § 1910.1200(c)) definition of "health hazard." That definition uses descriptive categories that include thousands of chemicals,

including all substances that have a TLV assigned by ACGIH. For each such "hazardous chemical," Paragraph (b) assigns a "hazardous exposure level" defined (in preemptive order) as the PEL, TLV, REL, or "available scientific information."

Thus, the rule would require employers to provide respirators to employees exposed to any one of thousands of substances at levels in excess of TLVs, RELs, or other levels based on "available information." Paragraph (a)(1) would then require employers to institute engineering controls for all substances which exceed these "hazardous exposure levels."

The same result would occur, according to the preamble, "whenever an employer requires any employee to wear a respirator, regardless of the exposure level and whether the substance is regulated." 59 Fed. Reg. 58895 (1994) (emphasis added). The foreseeable consequence of this policy would be to discourage employers from requiring their employees to wear respirators.

As explained below, the current application of the rule, as defined in Paragraph (a)(2), has not been justified as required by Section 6 of the OSH Act. Paragraph (a)(2) should be amended to provide that "respirators shall be provided by the employer whenever employee exposures would exceed an OSHA permissible exposure limit (PEL) or warrant a 5(a)(1) citation under the OSH Act."

(b) Scope

Even assuming the foregoing limitations (to PELs and recognized hazards) were incorporated into Paragraph (a)(2), however, the defined scope of the rule itself (especially Paragraph (c)) would create a similar problem. Paragraph (a)(2) requires employers to establish respiratory protection programs that comply with Paragraph (c), which also requires employers to establish respiratory protection programs that ensure that respirators are selected and used "as necessary to protect the health of employees." 59 Fed. Reg. 58939 (1994). Moreover, Paragraph (c)(2) also requires that respirators be "properly selected," which requires employees to use "the relevant hazardous exposure level" (Paragraph (d)(3)(iv)).

Thus Paragraph (c), like Paragraph (a)(2), would expand the rule beyond the scope justified by law. An employer with a workplace where a single PEL would be exceeded, or where a single substance presented a recognized hazard, would be forced to ensure that respirators limit exposures to "hazardous exposure levels" for every substance covered by OSHA's Hazard Communication Standard, including substances without PELs. In turn, Paragraph (a)(1) would require implementation of expensive engineering controls for all such substances. This expansive result is signaled by the preamble, in which OSHA writes that if a single PEL is exceeded or recognized hazard exists, "the proposal would require respirators to be provided by the employer

and a respiratory protection program that meets the full requirements of the respirator standard to be implemented." 59 Fed. Reg. 58895 (1994).

As explained below, requiring compliance with "hazardous exposure levels" (as defined in the proposed rule) for substances without PELs is unnecessary to ensure protection of employee health and cannot withstand legal scrutiny.

2. Achieving Threshold Limit Values, Recommended Exposure Levels, and Limits Based on Material Safety Data Sheet Information Goes Beyond the General Duty Clause

The General Duty Clause may be used to cite employers only where an employer fails to furnish to each of his employees a place of employment which is free from "recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." The term "recognized hazards," as used in the General Duty Clause, refers to obvious or apparent dangers. As explained by Congressman Steiger, one of the key supporters of the OSH Act:

> Such hazards are the type that can be detected on the basis of the human senses. Hazards which require technical or testing devices to detect them are not intended to be within the scope of the general duty requirement.

116 Cong. Rec. 11899 (daily ed. December 17, 1970). According to an OSHA Compliance Operations Manual:

> A hazard is "recognized" if it is a condition that is (a) of common knowledge or general recognition in the particular industry in which it occurs, and (b) detectable (1) by means of the senses (sight, smell, touch and hearing), or (2) is of <u>such wide, general recognition as a hazard in the industry</u> that even if it is not detectable by means of the senses, there are generally known and accepted tests for its existence which should make its presence known to the employer.

OSHA Office of Compliance, "Compliance Operations Manual" (January 1972) (emphasis added). In short, even under OSHA's more expansive definition, if the term "recognized hazards" refers to any hazards that are undetectable by the senses, they must be exceptionally widely and generally recognized in the industry.

Achieving Threshold Limit Values and Recommended Exposure Levels or standards based on data in Material Safety Data Sheets goes beyond achieving compliance the General Duty Clause. TLVs and RELs represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse health effects. Exposure to a substance in excess of a TLV (which is only an unofficial "guideline or recommendation")[10] or REL is not ordinarily a "recognized hazard . . . causing or . . . likely to cause death or serious physical harm." See 5 U.S.C. § 654(a)(1).

3. Requiring Compliance With Hazardous Exposure Levels Unlawfully Creates New PELs

By requiring that employers ensure that employee exposures to substances without PEL's do not exceed "hazardous exposure levels," OSHA effectively is proposing the creation of new PELs. OSHA cannot circumvent the requirements of the OSH Act by imposing new exposure levels within the context of a respirator protection program. If OSHA intends to create new PELs, these new PELs must be supported by substantial evidence.

Section 3(8) of the OSH Act requires that an occupational health and safety standard must be "reasonably necessary or appropriate" to provide safe or healthful places of employment. The Supreme Court has interpreted Section 3(8) of the OSH Act to require that, before the promulgation of an OSHA health standard, OSHA make a threshold finding that a significant risk of material health impairment exists at the current levels of exposure to the toxic substance in question. Industrial Union Dept., AFL-CIO v. American Petroleum Inst., 448 U.S. 607, 642 (1980) (hereinafter "Benzene"). Once OSHA finds a significant risk, any standard promulgated to address that risk must comply with the requirements of Section 6(b)(5) of the OSH Act. That section provides that the standard adopted "prevent material impairment of health to the extent feasible."

OSHA bears the burden of establishing the need for a proposed standard. Benzene at 653. OSHA is not entitled to take short-cuts with statutory requirements simply because it chooses to combine multiple substances in a single rulemaking. AFL-CIO v. Occupational Safety and Health Admin., 965 F.2d 962, 975 (11th Cir. 1992). OSHA has a responsibility to quantify or explain, at least to some reasonable degree, the risk posed by each toxic substance regulated under the respirator standard. Id. at 975.

---

[10] Documentation of the Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) (6th Ed.).

Here, OSHA does not even attempt to meet its burden of proof. Within the proposed respirator rule there is no quantification or explanation of the risk from individual substances for which new exposure limits are imposed. There is no assessment of the level at which any significant risk of harm would be eliminated or substantially reduced. There is no showing that compliance with TLVs, RELs, and limits based on material safety data sheets is technologically and economically feasible. As the Eleventh Circuit made clear in AFL-CIO v. OSHA, 965 F.2d 962, 976 (11th Cir. 1992), OSHA must provide some articulation of reasons for its choice of exposure limits. OSHA cannot simply set new exposure levels at TLVs, RELs or some other limit based on material safety data sheets without justification.

4. The "Hazardous Exposure Levels" Definition is an Unnecessary Addition to the Respirator Standard

Because the scope of the respirator standard properly extends only to PELs and the General Duty Clause, the "hazardous exposure level" definition should not go beyond these requirements. Any such expansion would intrude on putative risks for which OSHA has not established a lawful basis for regulation. A "Hazardous Exposure Level" definition is needed only to facilitate protection against properly regulated risks. Expansion to include TLVs, RELs, and material safety data sheet information would overstep OSHA's lawful mandate.

F. Substantive Provisions On Respirator Use In Other Rules Need To Be Coordinated With This Proposal

Requirements for respirators should be consistent and uniform. Requiring employers to comply with substance-specific standards in addition to the general respirator standard makes compliance with the respirator standard unnecessarily burdensome. Rather than maintaining a cumbersome thicket of duplicative and possibly conflicting regulations, OSHA should simply incorporate by reference into all substance-specific standards the general respiratory standard at § 1910.134.

IV. Specific Comments

In this section, AISI will comment on specific provisions within the proposed respirator standard, and suggest how specific language could be improved.[11] AISI believes, however, that minor changes to the proposed rule will not be sufficient to make it acceptable. The proposal ignores President Clinton's Executive Order to

---

[11] Where AISI proposes that OSHA change language in a requirement, it has marked language it believes should be removed with strikethroughs and has underlined proposed new language.

make government regulations more efficient and less detailed and burdensome. See Exec. Order No. 12866 (1993). The proposed respirator standard does not limit requirements to those measures which are required for the safety and health of employees. Instead, it adopts an academic view of ideal industrial hygiene practices that it would impose on every employer. In light of the significant problems with the proposed standard discussed above, the standard should be withdrawn and radically revised to include only those provisions that are necessary and appropriate to identify and reduce significant risk.

A. Section (a) Scope and Application

Section a(1) should be removed from the proposal:

~~(1) In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.~~

Comments:

-- OSHA should delete the methods of compliance provision for the reasons set forth in General Comment III, D, supra.

(2) ~~Respirators shall be provided by the employer when such equipment is necessary to protect the health and safety of the employee. The employer shall provide the respirators which are applicable and suitable for the purposes intended.~~ When respirators are required to comply with OSHA PEL's promulgated at 29 CFR § 1910.1000, or to avoid an exposure that would warrant a § 5(a)(1) citation, the employer shall be responsible for the establishment, and maintenance, of a respiratory protective program ~~which shall include the requirements outlined in Paragraph (c) of this section~~. The employee shall be responsible for following the employer's respiratory protection program.

Comments:

-- In the preamble to the proposed regulation, at 59 Fed. Reg. 58895, OSHA interprets Paragraph (a)(2) as requiring the use of respirators in the absence of engineering controls whenever employee exposures would exceed an OSHA permissible exposure level or would violate

Section 5(a)(1). The scope of the standard should be made explicit, to avoid an interpretation inconsistent with the preamble.

-- The employer should not be held accountable for employees not following the employer's respirator program.

B. Section (b) Definitions

Fit Factor

Fit factor means an estimate of the ratio of the average concentration of a challenge agent or atmosphere ~~in a test chamber~~ to the average concentration inside the respirator ~~as worn with a high efficiency filter~~.

Comments:

-- Not all quantitative fit-tests utilize a test chamber.

-- Because the fit factor is being determined and not the adequacy of the filter, OSHA should not address the filter in this definition.

Hazardous exposure level:

(1) ~~The~~ Exposure in excess of the permissible exposure limit (PEL) for the hazardous chemical in 29 C.F.R. Part 1910, Subpart Z, of the General Industry Standards of the Occupational Safety and Health Administration (OSHA); or an exposure that would warrant a 5(a)(1) citation under the OSH Act.

~~(2) If there is not PEL for the hazardous chemical, the Threshold Limit Values (TVL) recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) in the latest edition of Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, or,~~

~~(3) If there is no PEL, or TLV for the hazardous chemical, the NIOSH Recommended Exposure Limit (REL); or~~

~~(4) If there is no PEL, TLV, or REL for the hazardous chemical, an exposure level base on available scientific information including material safety data sheets.~~

Comments:

-- See General Comment III, E, supra.

Immediately dangerous to life or health or IDLH means an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or poses immediate irreversible debilitating effects on health. ~~threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere~~.

Comments:

-- The proposed definition, which includes "delayed health affects," is so broad that it goes far beyond the accepted IDLH concept, and would expand it beyond its intended purpose.

C. Section (c) Respirator Protection Program

(1) The employer in accordance with this section shall establish and implement a written respiratory protection program ~~which shall ensure~~ so that the respirators are properly selected, fitted, used, and maintained. ~~as necessary to protect the health of employees~~.

Comments:

-- OSHA uses the term "ensure" throughout the proposed document. It places an impossible burden on the employer. The employer cannot ensure any employee action or inaction. OSHA should simplify as noted above.

-- The concluding phrase suggests an independent duty to use respirators beyond the purposes explained in the preamble.

(1)(v) Procedures and ~~schedules~~ frequencies for cleaning, disinfection, storing, inspecting, repairing, or otherwise maintaining respirators;

Comments: The term "Schedules" connotes a requirement for extensive recordkeeping and paperwork.

(1)(vi) Procedures ~~to ensure~~ that provide for proper air quality, quantity and flow for atmosphere supplying respirator;

Comments: See Comment IV, C, (1), supra.

~~(1)(vii) Training of employees in the respiratory and health hazards of the hazardous chemicals to which they are potentially exposed as required under the Hazard Communication standard (29 CFR 1910.1200)~~

Comments: This section is redundant. Training is already regulated under the Hazard Communication Standard.

(1)(viii) Training of employees ~~to ensure~~ in the proper use and maintenance of the respirators; and,

Comments: See Comment IV, C, (1), supra.

D. Section (d) Selection of Respirators

(2) Where ~~elastomeric facepiece~~ respirators are to be used the employer shall provide one with an acceptable fit ~~a selection of respirators from an assortment of at least three sizes for each type of facepiece and from at least two different manufacturers.~~

Comments:

-- Some respirators that have been widely accepted by workers and fit well have only one size.

-- Requiring that employers provide a selection from two different manufacturers may inhibit employers from negotiating the best price from one manufacturer as the sole supplier.

-- Requiring two suppliers of atmosphere supplying respirators may create confusion among workers who must don masks quickly in critical situations.

(3) In addition, the employer shall consider ~~obtain and evaluate the following information for each work situation~~ workplace conditions where respirators are required.

Comments:

-- Items listed in Subsection (3) may not be economically feasible to obtain and evaluate. They should be listed only as guidelines as to what could be used to consider proper respirator selection.

-- The usage of "each work situation" is vague and could be interpreted to mean that every time an insignificant variable changes, new information must be obtained and evaluated.

(3)(v) The results of workplace ~~sampling~~ evaluations of airborne concentrations of contaminants.

Comments:

-- Sampling is not required, or appropriate, to evaluate worker exposures in every workplace situation.

(10)(iii) For oxygen deficient IDLH atmospheres with a measured oxygen content below 16% by volume at altitudes up to 3000 feet, or below the oxygen level specified in Table III at altitudes up to 8000 feet or below 19.5% at altitudes above 8000 feet up to 14,000 feet, or ~~in atmospheres~~ where the concentration of the hazardous chemical is ~~unknown~~ reasonably suspected of creating an ~~or in other~~ IDLH atmospheres, a half or full facepiece pressure demand SCBA or a combination full facepiece pressure demand supplied air respirator with auxiliary self-contained air supply shall be used.

Comments:

-- The term "unknown" is ambiguous. Hazardous chemicals are present everywhere, usually in minuscule concentrations and below detectable levels so the amount is unknown. This would require supplied air respirator usage.

-- Full facepiece pressure demand SCBA's are not necessary in all IDLH atmospheres.

(5) The employer shall make ~~types of respirators~~ respiratory protection available for selection and ~~shall ensure that employees~~ use ~~respirators~~ in accordance with the assigned protection factor tables ~~in the NIOSH Respirator Decision Logic published in May 1987~~.

Comments:

-- The public has never had an opportunity to comment on the NIOSH Respirator Decision Logic.

-- This publication could change at any time, without notice to the regulated community and without going through necessary rulemaking.

-- Use of this Decision Logic requires use of NIOSH recommended exposure limits (RELs). OSHA cannot require use of RELs where OSHA has made no showing that compliance with RELs is reasonably necessary or appropriate to ensure employee health, or that compliance with RELs is feasible.

-- Instead of restricting employees to the exclusive use of the NIOSH Respirator Decision Logic, OSHA should permit the adoption of protection factors that are: NIOSH approved, or meet manufacturer's recommendations, or meet ANSI consensus standards, or meet international consensus standards, or are contained in the NIOSH Respirator Decision Logic.

E. Section (e) Medical Evaluation

(3) The employer shall have the employee's medical status reviewed by, or under the supervision of, a licensed physician ~~annually and at any time the employee experiences unusual difficulty breathing while being fitted for or while using a respirator. The employer shall have the responsible licensed physician provide a written opinion resulting from the review as required under paragraph (e)(1)~~ once prior to initial fitting and thereafter as determined by a licensed physician or after identification of a functional disability that might affect the ability to wear a respirator.

Comments:

Annual medical examinations are costly and unnecessary. The rule should require an examination by a physician prior to the initial fitting of respirators, and thereafter at a frequency determined by a physician. The Nuclear Regulatory Commission (NRC) recently amended its respirator regulations to eliminate mandatory annual testing in favor of such a provision. 60 Fed. Reg. 7900 (1995).

F. Section (f) Fit Testing

(2) The employer shall ~~ensure that an employees is~~ fit test~~ed~~ the employee: prior to initial use of the respirator, ~~whenever~~ prior to use of a different make or size of respirator ~~is used, and annually thereafter~~, or when notified by an employee of a

change in personal or facial condition which may affect respirator fit, or when the need for a fit test is indicated by a medical evaluation or other reasons.

Comments: The administration of automatic annual fit tests is unnecessary. Except for the conditions noted, steel industry experience has shown that once a respirator wearer has been fit tested and has an acceptable fit, subsequent tests demonstrated consistent fit factors.

(3) Appendix A should be non-mandatory. See comment M, infra.

(6)(ii)(B) Quantitative fit testing can be performed in accordance with the established protocol specified in Section II of Appendix A or a new protocol that meets the minimum criteria contained in Section I of Appendix A. ~~The test subject shall not be permitted to wear a full facepiece respirator unless a minimum fit factor of five hundred (500) is obtained in the test chamber. The full facepiece respirator may not be worn in concentrations greater than fifty (50) times the hazardous exposure level regardless of the measured fit factor in the chamber.~~ The employee shall be permitted to wear a full facepiece respirator in concentrations not greater than one hundred (100) times the hazardous exposure level, provided a minimum fit factor of one thousand (1000) is obtained. The employee shall be permitted to wear a full facepiece respirator in concentrations not greater than ten (10) times the hazardous exposure level, provided a minimum fit factor of one hundred (100) is obtained.

Comments:

-- Employees should be permitted to wear a full facepiece respirator in concentrations not greater than 100 times the hazardous exposure level, provided a minimum fit factor of 1,000 is obtained, as recommended in ANSI Z88.2-1991.

-- Prohibiting an employee subject from wearing a full facepiece respirator unless a minimum fit factor of 500 is obtained is unnecessarily restrictive in some circumstances. If an employee subject can wear a half mask or quarter facepiece respirator in concentrations less than ten times the hazardous exposure level where a minimum fit factor of one hundred is obtained, then a test subject should also be able to wear a full facepiece respirator in concentrations less than ten times the hazardous exposure level where a minimum fit factor of one hundred is obtained. Consider, for example, a hypothetical circumstance where the concentration of a chemical is twice the hazardous exposure level, and the employee prefers to wear a full facepiece respirator instead of a half mask or quarter facepiece respirator because a full facepiece respirator provides greater protection against eye irritation. It is irrational to

require a minimum fit factor of 500 to be obtained for a full facepiece respirator in this situation, where the full facepiece respirator is needed to reduce eye irritation, not to achieve significant reductions in the hazardous exposure level.

G. Section (g) Use of Respirators

(2) The employer shall develop and implement specific procedures for the use of respirators in atmospheres where oxygen deficiency or the concentrations of a hazardous chemical are IDLH or potentially IDLH ~~unknown and/or potentially immediately dangerous to the life or health (IDLH) of the employee. These procedures shall include the following provisions.~~

Comments: Use of the term "unknown" is far too broad. Virtually every area occupied by everybody at all times have unknown concentrations of hazardous chemicals.

(2)(ii) When an employee(s) wears a respirator in an IDLH atmosphere, in an area ~~unknown~~ reasonably suspected of containing ~~or potentially IDLH atmospheres where the employee(s) could be overcome if the respiratory protection fails~~ an IDLH atmosphere, or in an area with a reasonable potential for an IDLH atmosphere to develop, the employer shall ensure that at least one additional person located outside the IDLH atmosphere is in communication with the employee(s) in the IDLH atmosphere, and able to ~~provide~~ assist in providing or obtaining effective emergency assistance; and

Comments:

-- The term "unknown" is far too broad, for the reasons explained above.

-- Emergency assistance should also be available when an IDLH atmosphere is suspected or may potentially develop.

~~(2(iv) The emergency assistance personnel present shall be equipped with a positive pressure self contained breathing apparatus.~~

Comments:

-- This requirement is unnecessary because the ability to provide emergency assistance is covered in 2(ii).

(3) The employer shall not permit negative pressure, pressure demand or positive pressure respirators which depend ~~for effective performance~~ on a tight facepiece-to-face seal for effective performance to be worn by employees with conditions that prevent such ~~fits~~ seals. Examples of these . . .

Comments:

-- The sentence was not easily understood in its original form.

(4) If an employee wears corrective glasses or goggles, ~~the employer shall ensure that~~ they are to be worn in such a manner that they do not interfere with the seal of the facepiece to the face of the wearer.

Comments:

-- See Comment IV, C, (1), supra.

(8) ~~The employer shall ensure that~~ Respirators are to be immediately ~~repaired, or discarded and~~ replaced when they are no longer in proper original working condition.

Comments:

-- See Comment IV, C, (1), supra.

-- It is unnecessary to immediately repair or discard a defective respirator. It is however, necessary to immediately replace a defective respirator.

(9) ~~The employer shall ensure that~~ Disposable respirators which cannot be cleaned and sanitized ~~are~~ must be discarded when no longer effective or at the end of ~~the task or~~ the work shift, whichever comes first.

Comments:

-- See Comment IV, C, (1), supra.

-- It is economically infeasible to discard disposable respirators every time a "task" is completed. An employee might perform twenty different tasks in one day. The term "task" is to vague to use here.

H. Section (h) Maintenance and Care of Respirators

(1) Cleaning and disinfecting. ~~The employer shall ensure that~~ Respirators ~~are~~ must be cleaned and ~~disinfected using~~ maintained in a sanitary condition. ~~the~~ The cleaning procedures recommended by the respirator manufacturer or ~~cleaning procedures recommended~~ in Appendix B, or a recognized standard-setting organization, ~~at the following intervals~~ should be followed.

Comments:

-- See Comment IV, C, (1), supra.

-- There are other recognized procedures that member companies use to clean and disinfect respirators. They include standards recommended by ANSI and other similar organizations and should be acknowledged.

-- Respirators should be clean and sanitary.

(1)(ii) Routinely used respirators issued to more than one employee shall be cleaned and disinfected before they may be used by a ~~after each~~ different employee ~~use~~; and,

Comments:

-- The original language would require an employee to clean and disinfect a respirator each time that he uses it intermittently, even during a single shift, and even if he is the only user during the shift. We believe that this result was unintended.

(3)(i)(C) Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully charged state or near fully charged state (approximately 90% full) ~~and recharged when the pressure falls to 90% of the manufacturer's recommended pressure level.~~ The employer shall . . .

Comments:

-- The large incremental gradations on NIOSH approved pressure gauges cannot be used to accurately determine the 90% full level.

(3)(ii) ~~The employer shall ensure that~~ The respirator inspections should include the following:

-- See Comment IV, C, (1), supra.

I. Section (l) Supplied Air Quality and Use

(1) ~~The employer shall ensure that~~ Compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration ~~is~~ must be of high purity, and in accordance with the following specifications: Compressed and liquid . . .

Comments:

-- See Comment IV, C, (1), supra.

~~(4)(iii) The moisture content in compressed air cylinders shall not exceed 27 milliliters per cubic meter.~~

Comments:

-- It is not practical to verify the regulated moisture content in normal situations. Some companies purchase air with specified moisture content, but it is not practical to measure the moisture content of each cylinder upon receiving or distributing that air.

J. Section (j) Identification of Filters, Cartridges, and Canisters

(1) ~~The employer shall ensure that all~~ Filters, cartridges and canisters used in the workplace ~~are~~ must be properly labeled and color coded with the NIOSH approval label before they are placed in service.

Comments:

-- See Comment IV, C, (1), supra.

(2) ~~The employer shall ensure that the~~ Existing NIOSH approval labels on a filter, cartridge, or canister ~~is not~~ must not be removed, obscured or defaced while they are in service in the workplace.

Comments:

-- See Comment IV, C, (1), supra.

K. Section (k) Training

~~(1)(l) Nature, extent, and effects of respiratory hazards to which the employee may be exposed as required under the Hazard Communication standard (29 CFR 1910.1200);~~

Comments:

-- This section is redundant. Training is already regulated under the Hazard Communication Standard.

(2) The employer shall provide the training prior to requiring the employee to wear a respirator in the workplace, and ~~annually~~ thereafter as necessary to provide effective respiratory system protection.

Comments:

-- Annual training is unnecessary. Training is more effective when delivered on an as-needed basis, rather than on a specific time frame whether needed or not.

L. Section (l) Respiratory Protection Program Evaluation

(1) The employer shall review the respiratory protection program at least annually, and shall conduct frequent random inspections of the workplace ~~to ensure~~ so that the provisions of the program are being properly implemented ~~for all affected employees.~~ The review of . . .

Comments:

-- See Comment IV, C, (1), supra.

-- The reference to "for all affected employees" is unnecessary. Proper implementation implies inclusion of "all affected employees."

M. Appendix A: Fit Testing Procedures (Non-Mandatory)

Comments:

-- The fit testing procedures in Appendix A should be non-mandatory. Establishing rigid fit testing protocols would lock employers into technology that exists today. With mandatory fit testing protocols, there may be developments in the fit testing area which the regulated community will be unable to respond to, short of going through the cumbersome process of seeking a variance.

-- A protocol for the TSI Portacount fit testing method should be included as an established quantitative fit test protocol in Appendix A. The Portacount is widely used in industry at the present time. OSHA, by classifying the use of the TSI as a "de minimis" violation, has implicitly recognized that the method is an effective quantitative fit testing method.

-- References to TLVs should be deleted throughout Appendix A. See General Comment E, supra.

II(A)(1): The test subject shall be allowed to pick the most comfortable respirator from a selection including respirators of various sizes ~~from different manufacturers~~.

Comments:

-- Requiring that employers provide a selection from two different manufacturers may inhibit employers from negotiating the best price from one manufacturer as the sole supplier.

-- Requiring two suppliers of atmosphere supplying respirators may create confusion among workers who must don masks quickly in critical situations.

II(C)(4)(h): In order to successfully complete a QNFT, ~~three successful fit tests are required.~~ the results of ~~each of~~ the ~~three independent~~ fit tests must exceed the minimum fit factor needed for the class of respirator (e.g., quarter facepiece respirator, half mask respirator, full facepiece respirator) as specified in Paragraph (f) of this section.

Comments:

One successful fit test is sufficient. Requiring three successful fit tests would create an unnecessary burden on employer and is not justifiable.