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Docket Officer
Docket H-049
U.S. Department of Labor
Occupational Safety and
Health Administration
Room N2625
200 Constitution Avenue, N.W.
Washington, D.C. 20210

RE: Respiratory Protection; Proposed Rule. Federal Register November 15, 1994, Vol. 59,
No. 219, Pg 58883

Dear Docket Officer:

The American Petroleum Institute (API) submits these comments in response to the Occupational Safety and Health Administration's (OSHA) Notice of Proposed Rulemaking on Respiratory Protection. API is a national trade association representing over 300 member companies engaged in all aspects of the petroleum industry, including exploration, production, transportation, refining and marketing.

API is committed to working with OSHA to develop sound regulations that protect the health and safety of our employees. For that reason, API supports OSHA in its efforts to revise the current Respiratory Protection Standard. However, there are several concerns associated with the proposed rule that we want to highlight in this letter and cover in more detail in our attached comments.

Building Block Standard

API supports OSHA's intention to revise the Respiratory Protection Standard and to enhance its usefulness as a "building block standard." However, there are numerous areas in the standard which will need further revision before the proposed rule could be considered a successful building block standard. One of these areas includes the reference to the proposed rule in OSHA's substance specific standards. For example, the Asbestos substance specific standard requires semi-annual fit testing for respirators. This requirement is inconsistent with the fit

testing requirements of the proposed rule, and directly contradicts the benefit of a building block standard, consistency. OSHA must consider these conflicts as it develops the final respiratory protection rule. In order to develop an "evergreen" regulation which is adaptable in a variety situations, OSHA must enhance the performance based approach and ensure consistency with and among all applications of the rule. OSHA must revise the proposed rule to ensure consistent application. Additional recommendations for enhanced performance language are provided in our detailed comments.

Medical Evaluation

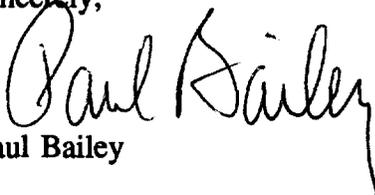
API has evaluated the three alternatives offered for medical evaluation and recommends that OSHA adopt Alternative 3 - Questionnaire. The selection of the Questionnaire is based on the belief that in the respiratory medical evaluation procedures, OSHA should focus on respiratory fitness not on job fitness. This focus should be evident in the entire building block approach to respiratory protection. API has provided in our detailed comments additional information in support of our recommendation of Alternative 3, the Questionnaire.

Fit Testing

OSHA's requirements for successful fit testing are flawed, specifically, the requirement to conduct three successful Quantitative Fit Tests and only one successful Qualitative Fit Test. This requirement discourages the use of the more precise and accurate fit test method. Further, this requirement will significantly increase the cost of conducting fit testing, both in time and equipment, without appreciable benefit to the employee. Our detailed comments provide further discussion of our concerns and recommendation for revision to this section.

Please contact Colette Mlynarek at (202) 682-8477 if you have any questions.

Sincerely,


Paul Bailey

Enclosure

AMERICAN PETROLEUM INSTITUTE

DETAILED COMMENTS

29 CFR Parts 1910, 1915 and 1926
Respiratory Protection; Proposed Rule29 CFR 1910.134

I. (b) Definitions (59 FR 58938)

1. Adequate warning properties (59 FR 58938)

API recommends revision to the definition of "adequate warning properties" to clarify OSHA's intention to address both specific chemicals and mixtures, and the inclusion of the Permissible Exposure Limit as the concentration limit of concern. API recommends the following revised definition:

"Adequate warning properties means the detectable characteristics of a hazardous chemical and or mixture including odor, taste, and/or irritation effects which are detectable and persistent at concentrations at or below the Permissible Exposure Limit, and exposure at these low levels does not cause olfactory fatigue."

2. Atmosphere-supplying respirator (59 FR 58938)

API recommends OSHA consistently refer to the use of oxygen throughout the standard. As written, the standard does not adequately define when oxygen can be used, or if it can be used at all. API recommends the term "pure oxygen" be used when referring to "neat oxygen," such as in (i)(3). API recommends OSHA adopt the following definition for "atmosphere-supplying respirator":

"Atmosphere-supplying respirator means a respirator which supplies the wearer with breathing air from a source independent of the immediate ambient atmosphere. This includes air-supplied respirators and self-contained breathing apparatus (SCBA) units."

3. Disposable respirator (59 FR 58938)

API recommends that OSHA differentiate between types of disposable respirators - those that have an elastomeric facepiece and those that are non-elastomeric. The need to single out disposable, non-elastomeric facepieces (mostly in substance specific standards) stems from questions about their ability to create an adequate seal/fit. However, many elastomeric facepiece respirators now come in disposable models. These differ from the traditional "repeat use" respirators only because the cartridges

are not replaceable. API suggests adding the term "non-elastomeric" to the above definition title - Disposable non-elastomeric respirator.

4. Fit Factor (59 FR 58938)

API finds that the definition of "fit factor" is inconsistent with the rest of the standard, and API recommends the following revised definition:

"Fit factor means an estimate of the ratio of the average concentration of a challenge agent in the atmosphere to the average concentration inside the respirator."

5. Hazardous Exposure Level (59 FR 58938)

API does not support OSHA's use of the phrase "hazardous exposure level" in the proposed rule. OSHA's attempt to adopt ACGIH TLVs in the proposed definition is unsatisfactory. The process for determining TLVs does not comply with the OSHA rulemaking process and "adoption" by OSHA of these non-contestable levels represents inappropriate action by OSHA. Instead, API supports the use of Permissible Exposure Limits (PEL) as the satisfactory substitute for hazardous exposure level, and recommends OSHA incorporate the definition of PEL in the standard.

6. Immediately dangerous to life or health (IDLH) (59 FR 58938)

API recommends OSHA adopt the IDLH definition found in ANSI Z88.2-1992. Additionally, API is concerned with the current NIOSH process for determining IDLH values. It would appear that the most recent revision to the NIOSH IDLH values was void of sufficient industry review and comment. Many of the IDLH values were lowered, some significantly, which will have a direct impact on compliance with OSHA's proposed respiratory standard. API recommends the following revised definition:

"Immediately dangerous to life or health (IDLH) is any atmosphere that poses an immediate hazard to life or poses immediate irreversible debilitating effects on health."

7. Maximum use concentration (MUC) (59 FR 58938)

NIOSH also uses the term MUC, and a different definition applies. Varying definitions make the issue confusing. API recommends the term MUC be utilized by NIOSH and OSHA adopt the term "assigned use concentration." API recommends the following revised definition:

"Assigned use concentration means the maximum concentration of an air contaminant in which a particular respirator can be used, based on the respirator's assigned protection factor."

II. (d) Selection of Respirators (59 FR 58939)

(d)(2):

The objective of §(d)(2) is to ensure that the employer provides respirators that adequately fit their employees. The prescriptive language proposed by OSHA is unnecessary to meet that objective. API recommends the following performance oriented approach to this section:

"(d)(2) Where respirators are to be used, the employer shall provide a selection of respirators to adequately fit the employee."

(d)(5):

API does agree that it is not appropriate to allow employers to select respirators from different guidelines with different assigned protection factor (APF) values. However, API recommends that OSHA use the APFs presented in ANSI Standard Z88.2-1992 in lieu of the NIOSH Respirator Decision Logic (RDL). API believes that the ANSI standard reflects the most current information on this subject; note that the latest study referencing respiratory fit in the RDL was published in 1984. The ANSI censuses process for this standard involved review by end users, respiratory protection experts, and governmental agency representatives, including OSHA and NIOSH. It is API's understanding that the studies used to support the ANSI APFs have been submitted to the docket by the Industrial Safety Equipment Association, contrary to comments in the preamble. API does not feel it is appropriate for OSHA to categorically discount current information in a proposed rulemaking just because this information disagrees with the NIOSH RDL (59 FR 58902, 1st column).

API also recommends that the information for the ANSI publication be relocated to a footnote. The revised paragraph would be as follows:

"(d)(5) The employer shall make types of respirators available for selection and shall assure that employees use respirators in accordance with the assigned protection factors presented in Table 1 of ANSI Z88.2-1992¹. (¹ would refer to a

footnote located later in the text which provides information about the availability of the ANSI Standard)."

(d)(7):

In keeping with the above revision to the definition of "maximum use concentration," API recommends the revision of §(d)(7) as follows:

"(d)(7) The employer shall not allow use of any respirator where the assigned use concentration for an air contaminant exceeds the limitation specified on the NIOSH approval label for the cartridge, canister or filter for such respirators."

(d)(8) & (d)(9):

API recommends the removal of §(d)(8)(ii) which allows the use of negative pressure respirators for chemicals whose odor threshold is less than three times the exposure limit. This statement further complicates the warning properties concept by adding another layer of confusion. Furthermore, API recommends combining the remaining §(d)(8) and §(d)(9) as follows:

"(d)(8) Air-purifying respirators shall not be used for a hazardous chemical with poor or inadequate warning properties unless either/or at least one of the following conditions are met:

- (i) Their use is permitted under the provisions of a substance specific OSHA standard, or
- (ii) the respirator has an end of service life indicator approved by NIOSH for use with the specific chemical, or
- (iii) A change schedule has been implemented to assure that air-purifying cartridges, canisters and/or filters are replaced before their useful service life has expired, based upon documented service life data, airborne concentration of the chemical, and duration of exposure."

III. (e) Medical Evaluation (59 FR 58940)

Of the three alternatives offered for Medical Evaluation Procedures, API supports Alternative 3 - Questionnaire. API believes that in the medical evaluation OSHA should focus on respirator fitness and not on job fitness. Section (e)(1)(i)-(vii) addresses mainly

the general fitness for duty issue and not respirator fitness. API recommends this information be provided to the physician only when requested. The Medical Evaluation Questionnaire, which API supports, should be used as a screening tool with further medical evaluation for only those individuals with possible problems, as identified on the questionnaire.

(e)(1):

In regard to the subject of duration of use, API believes that anyone who uses a respirator for valid hazard protection should be appropriately evaluated with a questionnaire. Therefore, API recommends OSHA delete the "for more than five hours during any work week" provision of §(e)(1).

IV. (f) Fit Testing (59 FR 58940)

API believes that the requirement to conduct three separate successful fit tests to complete an acceptable Quantitative Fit Test (QNFT) is counter-productive to the intent of the regulation. The purpose of fit testing is to assure that an employee can achieve a proper fit, and that by doing so, they will be adequately protected against airborne contaminants. By requiring three fit tests for a successful QNFT while requiring only one for a Qualitative Fit Test (QLFT), OSHA is discouraging the use of the better fit test method. Three tests add appreciable to the time and cost of conducting fit testing without adding value to the process. QLFT is a one-test, pass/fail process, it provides no numerical fit factor, no strip chart or printout for documentation. Each QLFT has been validated against a valid QNFT method. How can OSHA accept a one-test, pass/fail QLFT method and not accept the one-test, pass/fail QNFT method that was used to validate the QLFT?

API submits the QNFT methods should be one-test, pass/fail process as are QLFT methods. If a quantitative fit test results in a greater than 100 protection factor for a one-quarter or one-half facepiece respirator, a greater than 500 protection factor for fullface respirators, or a greater than 100 protection factor for positive pressure respirators the QNFT should be considered successful.

(f)(3), (f)(6)(iii):

API questions OSHA's requirement to fit test employees required to wear tight-fitting atmosphere supplying respirators. By conservative design, atmosphere supplying respirators are positive with respect to ambient air, thus any small leaks will be outward

rather than into the respirator. Larger more significant leaks can be identified through a formalized positive or negative fit-check of the respirator which is assessed during training. This fit-check should be a required part of training, which should also include instruction in procedures for donning and removing the respirator. In summary, API asserts that the fit of a positive-pressure atmosphere supplying respirator does not require a traditional fit-test protocol to adequately assess fit.

(f)(4):

API recommends that fit test manufacturers be included in the §(f)(4) provision allowing for approval of an alternative fit test procedure. Additionally, OSHA does not specify the reviewer of the alternative method. API supports the use of NIOSH to review the alternative fit test procedure, as NIOSH is recognized as a reputable source for respirator research. Thus, pending NIOSH's review, OSHA would have final review and approval of the method. Therefore, API recommends OSHA incorporate NIOSH into the review of alternate fit test procedures.

(f)(6):

API recommends that OSHA replace reference to "the chamber" with "in the atmosphere" in both §(f)(6)(i)(b) and §(f)(6)(ii)(b). This revision better reflects the true fit test environment.

(f)(8):

API supports OSHA's intention to afford employees the opportunity to select a different respirator facepiece if the original facepiece is uncomfortable. However, the prescriptive language of §(f)(8) does not support a performance based standard. API recommends the following revision to §(f)(8):

"If an employee finds their respirator unacceptable, the employee shall be given the opportunity to select a different respirator facepiece and be retested."

(f)(9):

API supports OSHA's added flexibility on this requirement, however, API recommends OSHA revise the provision to grant employers 90 days, not 30, for the administration of a quantitative fit test. Additionally, API requests that OSHA recognize that "outside parties" may in fact be employed by the same organization, but may not reside at the particular location.

V. (g) Use of Respirators (59 FR 58941)

(g)(2)(iii):

API finds the language in §(g)(2)(iii) to be too specific in using the work "enter". Instead, API recommends that OSHA continue the performance language of §(g)(2)(ii) as follows:

"(g)(2)(iii) Where an employee(s) wears a respirator in IDLH, unknown or potentially IDLH atmospheres, the employer shall ensure that adequate provisions have been made for rescue, such as the use of retrieval equipment for lifting or removing employees from the hazardous atmosphere."

(g)(2)(iv):

API supports OSHA's and NIOSH's recent position statement allowing the use of combination airline/escape self-contained breathing apparatus during confined space rescue operations. We request that the wording of this position statement be included in §(g)(2)(iv) of the revised standard. Additionally OSHA should include more flexibility in allowing rescuers to don the escape portion of the assembly after entering or accessing an area too small for donned SCBA. Many industrial and "public" rescue operations are limited by the small size of available accessways.

(g)(3):

API requests that OSHA adopt stronger language to preclude the use of respirators when any facial hair is present which crosses the respirator sealing surface. Specifically, API requests OSHA adopt into the standard the language found in Appendix A, Section II, Number 9 (59 FR 58944).

(g)(4):

API supports OSHA's decision to allow the use of contact lenses while wearing respiratory protection. Additionally, API is aware of information provided to OSHA by one of our member companies, demonstrating the success (lack of breakthrough) for wearers of prescription sports goggles, such as Criss Mag Spectacles. API requests that OSHA allow for the use of such eyewear with full facepiece respirators. This approval should be based on the completion of a successful quantitative fit test while wearing the sports goggles with the respirator of choice.

(g)(5) & (g)(6) & (g)(7):

For better readability of the standard, API recommends OSHA combine Sections (g)(5),(6) and (7) as follows:

"(g)(5) The employer shall permit employees to leave the respirator use area for the following reasons;

- (i) to wash their faces and respirator facepieces as necessary to prevent skin irritation associated with respirator use,
- (ii) to change the filter elements or replace air-purifying respirators whenever they detect the warning properties of the contaminant, or to change the filter elements or a change in breathing resistance or chemical vapor breakthrough.

(g)(9):

The reference to "disposable respirator" continues to cause confusion in the context of cleaning and sanitizing. API recommends revising this section as follows:

"(g)(9) The employer shall require that disposable respirators without elastomeric facepieces be discarded at the end of the task or the work shift, whichever comes first."

VI. (h) Maintenance and Care of Respirators (59 FR 58941)

(h)(1):

API agrees with the need to clean a respirator after each day's use. However, API recommends OSHA require the sanitizing/disinfection of respirators as needed or when another person uses the respirator.

(h)(2):

Because employers do not typically store respirators, rather it is the responsibility of the employee, API recommends the following performance language be adopted in §(h)(2):

"(h)(2) Storage. The employer shall ensure that respirators are stored as follows:

(h)(2)(ii):

API finds the term "compartment" too prescriptive, and recommends that in §(h)(2)(ii) OSHA refer instead to the "use of an enclosure" or "respirators should be stored to protect..."

(h)(3)(iii):

API recommends that OSHA refrain from specifying the type of identification necessary (i.e., signature) for the inspector, and instead API recommends that OSHA refer to the "identification of the person that made the inspection..." This requirement still meets OSHA's intent but is far less prescriptive.

VII. (i) Supplied Air Quality and Use (59 FR 58942)

Although some guidance does exist for periodically assessing breathing air quality, API recommends that OSHA provide more pointed guidance in this area (e.g., at least once per quarter). Similar guidance is also needed in certifying that breathing air cylinders contain Grade D air. The use of breathing air cylinders is complicated by the fact that various methods are available to "produce" this air including direct compression of ambient air, reconstitution, or the mixing of select compressed gases. The mixing of nitrogen and oxygen to produce Grade D air is of concern due to the extreme consequences of having too little or too much oxygen in the cylinder. API recommends that OSHA follow ANSI's guidance in providing in a non-mandatory appendix an air sampling scheme for all breathing air cylinders. Specifically, more general sampling (10% of cylinders for carbon monoxide and odor) for reconstituted or ambient compressed air, but 100% testing for percent oxygen and nitrogen/oxygen mixed cylinders prior to use.

(i)(4):

API supports OSHA's removal of the requirement to install a compressor failure and/or high temperature alarm except in IDLH atmospheres.

VIII. (l) Respiratory Protection Program Evaluation (59 FR 58942)

(l)(1):

In an effort to incorporate a performance-based approach to the respiratory program evaluation, API recommends the following revision to §(l)(1):

"The employer shall review their respiratory protection program at least annually, shall include an assessment of each element required under paragraph (c)(1) of this section, and shall conduct random inspections of the workplace to ensure that the provisions of the program are being implemented for affected employees."

(l)(2):

API finds that this section of the standard prescribes a job description and should not be included in the standard. The objective of the section is to ensure that employees are consulted with periodically to allow for correction of any problems. However, the necessary assessment factors are included in the implementation of §(c)(1). Additionally, an employer could not carry out the requirements of §(c)(1) without consulting with the employees, thus allowing for the discussion and resolution of any problems. API recommends OSHA delete §(l)(2) from the proposed rule.

IX. (m) Recordkeeping and Access to Records (59 FR 58943)

(m)(1)(ii)(C):

For consistency with API's comments on §(e)(1), it is recommended OSHA revise §(m)(1)(ii)(C) to include the following:

"(m)(1)(ii)(C) A copy of any information requested by the physician.

X. (n) Effective Date (59 FR 58943)

It is inconceivable that an employer could fit test every employee within the specified 90 days. Therefore, API recommends OSHA revise the effective date section of the proposed rule to specify that "employees will be fit test within one year of the effective date of the standard."

XI. Appendix A - Apparatus (59 FR 58946)

API recommends that condensation nuclei testing, such as TSI Portacount, be recognized as an approved QNFT method and that it be included in Appendix A. Such testing is widely used in industry at the present time. API believes that by classifying the use of this method as a "de minimis" violation, OSHA has recognized that the method is in fact effective. Further, since this method is widely used and accepted, it would be appropriate to include it in the final rule and thus eliminate the reference to "test chambers".

29CFR 1910.1101

(g) Respirator Program (59 FR 58954)

(g)(4):

API recommends OSHA delete the requirement to fit test individuals wearing respirators in asbestos environments every six months. The revised respiratory protection standard represents OSHA's new focus and development of a "building block standard." The requirement for fit testing every six months is counterproductive to the fundamental basis of building block standards - consistency. Additionally, the prescriptive requirements affords no guarantee of increased protection to the employee. API maintains that the fit testing protocol for asbestos remain consistent with the general respiratory protection standard.

29 CFR 1910.252

(c)(7) Local ventilation (59 CFR 58955)

API notes an inconsistency in §(c)(7)(iii) and §(c)(9)(i) & (c)(10). In §(c)(9)(i) & (c)(10) OSHA indicates the work should be done using local exhaust ventilation or airline respirators unless atmospheric tests under the most adverse conditions have established that the worker's exposure is within the acceptable concentrations defined by § 1910.1000. However, the underlined text has been left out of §(c)(7)(iii). API believes this was probably an oversight and requests that OSHA incorporate the noted language into the appropriate portion of §(c)(7)(iii).