



ILLINOIS DEPARTMENT OF LABOR

Rod R. Blagojevich
Governor

Michael J. Fenger
Director

July 22, 2003

Illinois Law Enforcement Alarm System, ILEAS
c/o Elmhurst Police Department
Deputy Chief Pete Smith
125 East First Street
Elmhurst, Illinois 60126

Re: OSHA/IDOL 1998 Respiratory Protection Standard
29 CFR 1910.134

Dear Deputy Chief Smith:

This letter is a follow-up to our meeting of July 1, 2003 regarding the Illinois Department of Labor Safety Inspection and Education Division's adoption of OSHA's 1998 Respiratory Protection Standard and its applicability to *all* public bodies under guidelines outlined under the Health and Safety and Safety Inspection and Education Acts of Illinois. As per our discussion, review and interpretation, the standard clearly identifies specific guidelines to be followed before, during and after the use of any respiratory equipment. Hopefully, this document will provide the necessary guidance in assisting Law Enforcement personnel of an increased awareness of an additional part of their required Personal Protective Equipment arsenal.

The following sections are a paraphrased synopsis of guidelines for the Respiratory Protection Standard under 1910.134.

This section applies to General Industry (part 1910)

- (a) Permissible practice: (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;
- (2) Respirators shall be provided by the employer when such equipment is necessary to protect the health of the employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for establishment and maintenance of a respiratory protection program which shall include the requirements outlined in paragraph (c) of this section.

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NOTE: *This paragraph describes the purpose of the standard and its applicability. This application applies universally to all employees required to wear such protection.*

(b) *Definitions.* The following definitions are important terms used in the respiratory protection standard of this section.

Canister or cartridge means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Employee exposure means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

Escape-only respirator means a respirator intended to be used only for emergency exit.

Fit factor means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.

Qualitative fit test (QLFT) means a pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to a test agent.

Quantitative fit test (QNFT) means an assessment of respirator fit by numerically measuring the amount of leakage into the respirator.

NOTE: *These definitions outline basic components of a respirator (Canister/cartridge), type and purpose (Escape-only) and procedures ensuring the user's protection (Fit factor) via a (Fit test). Specific guidelines for the two acceptable methods of accomplishing this objective (Qualitative/Quantitative) are outlined in Appendix A of the standard.*

(c) *Respiratory protection program.* This paragraph requires the employer to develop and implement a written respiratory protection program with required site-specific procedures and elements for required respirator use. The program must be administered by a suitably trained administrator. (1) In any workplace where respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The employer shall include in the program the following provisions of this section, as applicable:

- (i) Procedures for selecting respirators for use in the workplace;
- (ii) Medical evaluations of employees required to use respirators;
- (iii) Fit testing procedures for tight-fitting respirators;
- (iv) Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
- (v) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators

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- (vi) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
- (vii) Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
- (viii) Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance; and
- (ix) Procedures for regularly evaluating the effectiveness of the program.

NOTE: *This section of the standard requires a site specific written policy, program, or Standard Operating Procedure (SOP) to be developed by the employer. The program must address the guidelines listed ((i) through (ix)). These are basic Who, What, Where and When questions.e.g.:*

Who will be administering the program, determining users selection of respirators, performing medical evaluations, conducting fit testing and training?;

What type of respiratory protection will be issued and what are their limitations?; and

Where and When will respirators be used?

- (d) *Selection of respirators.* This paragraph requires the employer to evaluate respiratory hazard(s) in the workplace, identify relevant factors, and base respirator selection on these factors.

NOTE: *When selecting a respirator, the following considerations must be taken into account. Correctly matching the respirator with the hazard and the user. Consideration of the unit's adequate effectiveness to reduce exposure to the user under all conditions. And, choosing a device which will allow the user to perform their job with the least amount of physical burden.*

- (e) *Medical evaluation.* Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this paragraph specifies the minimum for medical evaluation that employers must implement to determine the employee's ability to use a respirator.

- (1) *General.* The employer shall provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. The employer may discontinue an employee's medical evaluation(s) when the employee is no longer required to use a respirator.

(2) *Medical evaluation procedures.*

- (i) The employer shall identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.

- (ii) The medical evaluation shall obtain the information requested by the questionnaire in Sections 1 and 2, Part A of Appendix C of this section.

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NOTE: *The purpose of the medical evaluation is to identify medical conditions which may place the user at risk of serious medical consequences. Medical conditions known to compromise an employee's ability to tolerate respirator, job and workplace related physiological stress include, cardiovascular and respiratory diseases such as a history of high blood pressure, angina, heart attack, cardiac arrhythmias, stroke, asthma, chronic bronchitis and emphysema. Reduced pulmonary functions may also be caused by other factors such as smoking or prior exposure to respiratory hazards. Neurological or musculoskeletal disorders may be determined by ringing in the ears, epilepsy and lower back pain. Impaired sensory functions may consist of perforated eardrums and the reduced absence or ability of smell.*

This is a Mandatory requirement. Specific guidelines and questionnaire regarding this section of the standard may be found in Appendix C of the standard.

- (f) *Fit testing.* This paragraph requires that, before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. This paragraph specifies the kinds of fit tests allowed, the procedures for conducting them, and how the results of the fit tests must be used.
- (1) The employer shall ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT) as stated in this paragraph.
- (2) The employer shall ensure that an employee using a tight-fitting facepiece respirator is fit tested prior to initial use of the respirator, whenever a different respirator facepiece (size style, model or make) is used, and at least annually thereafter.

NOTE: *The primary purpose of fit testing is to identify the specific make, model, style and size of a respirator best suited for each individual user. In addition, fit testing reinforces respirator training by having wearers review proper methods of donning and wearing of the equipment.*

Once again, this is a Mandatory requirement and specific fit testing procedures, guidelines and methods (Qualitative v. Quantitative) can be found in Appendix A of this standard.

- (g) *Use of respirators.* This paragraph requires employers to establish and implement procedures for the proper use of respirators. These requirements include prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respirators in IDLH atmospheres or in interior structural firefighting situations.
- (1) *Facepiece seal protection.*
- (i) The employer shall not permit respirators with tight-fitting facepieces to be worn by employees who have:

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- (A) Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or
- (B) Any condition that interferes with the face-to-facepiece seal or valve function.

NOTE: *The main provision of this section of the standard emphatically prohibits **Any Facial Hair** which may interfere with a clean seal between the user's face and the respirator's face piece.*

Maintenance and care of respirators. This paragraph requires the employer to provide for the cleaning and disinfecting, storage, inspection, and repair of respirators used by employees.

NOTE: *The objective of this section is to ensure that the user is familiar with procedures involving basic care of the respirator.*

- (k) *Training and information.* This paragraph requires the employer to provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually, and more often, if necessary. This paragraph also requires the employer to provide the basic information on respirators in Appendix D of this section to employees who wear respirators when not required by this section or by the employer to do so.

NOTE: *This is perhaps the most important section of the standard.* It is imperative that ALL employees required to wear Respiratory Protection are properly trained on the unit's limitations and capabilities, checking proper fit and seal, maintenance and storage and recognizing medical signs and symptoms which may limit or prevent the effective use of a respirator.

- (m) *Recordkeeping.* This section requires the employer to establish and retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist the employer in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

- (1) *Medical evaluation.* Records of medical evaluations required by this section must be retained and made in accordance with 29 CFR 1910.1020.

- (2) *Fit testing.*

- (i) The employer shall establish a record of the qualitative and quantitative fit tests administered to an employee including:

- (A) The name or identification of the employee tested;

- (B) Type of fit test performed;

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- (C) Specific make, model, style, and size of respirator tested;
- (D) Date of test; and
- (E) The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.
- (ii) Fit test records shall be retained for respirators users until the next fit test is administered.
- (3) A written copy of the current respirator program shall be retained by the employer.
- (4) Written materials required to be retained under this paragraph shall be made available upon request to affected employees and to the Assistant Secretary or designee for examination and copying.

NOTE: *Recordkeeping is the final process of the Respiratory Protection program. It provides invaluable information to the Administrator, Trainer, Medical Professional and User. This section defines information required to ensure the viability and effectiveness of the program.*

Since our meeting, I have had the privilege of meeting with Mr. Charles Bicek, President of Safety Systems Corporation (Distributor of AVON Respirators) and Mr. Stanley Kimura, representative of the Illinois Hazmat Coordinators Association. During my visits with both gentlemen, our discussions focused on education and preparation for individuals who will be required to wear Respiratory Protection. As we are all aware, this is an additional “*protection factor*” which will benefit all public servants who may be called upon as First Responders to a Hazardous Materials situation. While Mr. Bicek has the arduous task of conducting “Train the Trainer” classes for ILEAS members as a distributor of AVON respirators, he, Mr. Kimura and I are all in agreement that while the intent of adding one additional line of defense for the protection of an employee is gratifying, we must also consider the additional requirements and guidelines being placed upon the individuals who will be assuming the responsibility of administering this program.

Therefore, as part of a cooperative effort, my entire staff and I continue to pledge our commitment of ensuring public employee health and safety through the Safety Inspection and Education Division’s consultation and educational programs. As always, please feel free to contact me in the event that you have any questions, comments or concerns.

Sincerely,

Al Juskenas
Illinois Department of Labor
Safety Inspection and Education
Division Manager

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Copies: Stanley Kimura, Northbrook Fire Department
Charles Bicek, Safety Systems Corporation

References:

ACT 220. SAFETY INSPECTION AND EDUCATION ACT

ACT 225. HEALTH AND SAFETY ACT

**DEPARTMENT OF LABOR NOTICE OF ADOPTED RULES TITLE 56
PART 350**

29 CFR Part 1910.134 Respiratory Protection Standard

Appendix A to §1910.134: Fit Testing Procedures (Mandatory)

Appendix C to §1910.134: Respirator Medical Evaluation Questionnaire (Mandatory)

OSHA Respiratory Protection Program Guidelines CPL 2-2.54A

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