

Respiratory Protection Standard Receives Facelift

The OSHA Respiratory Protection Standard has been updated from its original 1971 version in an effort to heighten awareness of respiratory protection in the regulated community. OSHA anticipates the improved clarity of the new standard will lead to more consistent and effective implementation of respiratory protection requirements, thereby effecting a reduction in injury and illness and improving the overall health of respirator users. The following information summarizes the changes in the standard, how they impact Virginia business and industry and the methods by which your company can prepare for compliance with the standard **before October 5, 1998**.

Compliance Dates

Revisions include the incorporation of technological advances and the consolidation of repetitive provisions found in other standards. Furthermore, several inconsistencies have been omitted, and problem areas have been clarified. In an effort to make the standard more user-friendly, OSHA has included a "definitions" section, as well as fit test instructions and a list of required training topics for respirator wearers.

This final standard became effective on April 8, 1998. The determination that respirator use is required shall be completed no later than September 8, 1998. Compliance with provisions is to be completed no later than October 5, 1998. During this time, employers must implement a written respiratory program or re-evaluate their current programs and update them in accordance with the new respiratory protection standard.

Old Versus New

The following are essential differences between the former and current respiratory protection standard:

- Annual review of medical status no longer required.

- Requires only annual respirator fit testing, not Semi-annual.
- Reduces requirements for employers to have at least three different sizes of face pieces from a minimum of two manufacturers.
- Allows reuse of disposable respirators if they can be demonstrated to continue to provide effective protection.
- Permits use of a medical questionnaire, rather than a hands-on physical exam by a physician for medical evaluation.
- Permits additional licensed healthcare professionals (LHCP) **other than a MD** to conduct the medical evaluation. A LHCP is defined by OSHA as a physician assistant, nurse practitioner or certified occupational health nurse. The scope of allowable practice is further defined by the credentials' state board of licensure.

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Respiratory Protection Standard Highlights

Major requirements of the new standard, as presented in the Code of Federal Regulations, are summarized on the following page:

- ◆ **Proper Respirator Selection** – The employer is required to select and provide appropriate respirators according to the specific respiratory hazards to which workers are or will be exposed. The employer must also consider workplace and user factors that may affect respirator performance and reliability.
- ◆ **Medical Evaluation** – To determine whether an employee is able to use a given respirator, a medical evaluation must be performed. A medical evaluation must be provided prior to fit testing and respirator use. Specific medical conditions can compromise an employee's ability to tolerate physiological burdens imposed by respirator use, thereby increasing risk of injury, illness, and death.
- ◆ **Fit Testing** – Before an employee is required to wear a respirator, he/she must be fit tested with the same make, model, style, and size of respirator to be used. If the respirator does not fit properly, the worker's protection is greatly reduced (the new standard includes fit test protocols).
- ◆ **Respirator Maintenance** – Storing, cleaning, disinfecting, inspecting, and repairing the respirator are essential to its proper functioning and the continued protection of the employee.
- ◆ **Employee Training** – Training is critical for a successful respiratory program and essential for correct respirator use. Employees must be trained and able to demonstrate knowledge of the following prior to respirator use:
 - Why respirators are necessary
 - How improper fit, usage, or maintenance can compromise the protective capabilities of the respirator
 - Limitation/capabilities of the selected respirator
 - How to deal with an emergency situation involving the use of a respirator or respirator malfunction
 - How to inspect, wear and remove, and check the seal of the respirator
 - Respirator maintenance/storage procedures
 - Medical symptoms/signs that may limit or prevent the effective use of respirators
 - General requirements of the final standard

What Does This Mean For You As A Person Responsible For Respiratory Protection Program Administration?

Hopefully, you will find it easier and less costly to comply with the standard. By selecting a LHCP other than a physician to conduct the medical evaluation that is no longer required annually, you may be able to reduce costs. The convenience of hiring a LHCP to conduct on-site medical evaluation and fit testing may also provide benefits to your company by reducing downtime and employee inconvenience, as well as increasing participation and compliance. By providing specific guidelines and requirements, the consistency of administration will bring about improved quality of program compliance.

EI has certified occupational health nurse specialists on our staff who are also certified in spirometry. These professionals have been conducting training on the revised standard, medical evaluations and testing for clients in the Carolinas and Virginia. If you have any questions or would like to schedule training or occupational health services for your respiratory protection program, please contact us at 1-800-717-3472, ext. 224.

ANSI Proposes New Voluntary Ergonomic Standard – OSHA to Follow by June 1999

While the discussion of OSHA standards for work-related ergonomic issues remains at the federal level, a committee of the American National Standards Institute (ANSI) has proposed a new voluntary standard.

The proposed standard involves managers and occupational safety and health professionals to help control cumulative trauma disorders in the workplace.

Specifics of the Proposed ANSI Ergonomic Standard

ANSI's Accredited Standards Committee Z365 concludes that it is possible to "quantify exposure" to work-related cumulative trauma disorder risk factors. Cumulative trauma disorders are defined as disorders (of the muscles, tendons, peripheral nerves, vascular system, or other tissues) that result from "intense, repeated, sustained or insufficient recovery" from motions of the body, exertions, vibration or cold.

The voluntary standard is designed to control work-related cumulative trauma disorders caused by manual lifting, assembly, manipulation of tools, machinery and other

“stresses to muscles, nerves, tendons, and associated soft tissues of the body.” Ergonomic aspects include work postures, work rates, work layout, vibration, tool design, and flexibility of workstations.

The standard lists the following components to be incorporated by an employer:

- ◆ **Management responsibilities:** creating procedures to detect and reduce risk factors related to cumulative trauma disorders.
- ◆ **Training:** recognizing signs and symptoms of cumulative trauma disorders.
- ◆ **Employee involvement:** conducting employee surveys, encouraging discussion and problem-solving in the work place.
- ◆ **Evaluation and management of cases:** working with health care providers on cases involving cumulative trauma disorders.
- ◆ **Job analysis:** looking at physical stresses using quantitative and qualitative approaches.
- ◆ **Job design and intervention:** eliminating or reducing work-related risk factors as much as “technically and practically feasible.”

The proposed voluntary standard is open for public comment until July 27, 1999. The committee will review all comments, and if changes are required, the document will require a second committee approval.

Now, OSHA is conducting a series of stakeholder meetings to share information on its development of a proposed ergonomic standard. According to Susan Fleming, Federal OSHA spokesperson, OSHA is aiming to have a proposed workplace ergonomics standard by June 1999. Because of ANSI’s nine-year review and discussion of cumulative disorders, it is hopeful that OSHA will find the proposed standard to be satisfactory.

OSHA Directive Clarifies HAZCOM Inspection Procedures

An article in a previous *EI Alert* Vol. 8, No. 5 discusses electronic access to material safety data sheets (MSDSs), as addressed by OSHA’s recent HAZCOM directive. Other problem areas in the HAZCOM standard

(i.e., OSHA’s policy on citing consumer product violations) have been clarified as follows:

- ▶ When a consumer product is used in a manner that is inconsistent with the manufacturer’s intended use, a citation will be issued.
- ▶ When personal exposure to a consumer product is found excessive in frequency and/or duration, as compared to use by the average consumer, a citation will be issued.
- ▶ A citation will list the specific substance in the consumer product that is hazardous, rather than listing the finished product.

The directive’s appendices also contain guidance for employers on compliance issues, such as labeling, MSDS preparation, as well as written hazard communication and training programs.

OSHA’s HAZCOM standard is the most frequently cited standard, with citations most often being issued for failure to have a written program. Other frequently cited HAZCOM violations include inadequate training, the lack of a written emergency plan and the absence of a personal protective equipment hazard assessment. OSHA officials hope the new directive will help reduce HAZCOM violations and improve safe work practices.

OSHA Broadens Preparedness Requirements for HAZWOPER - Is your Facility Ready for a Compliance Inspection?

OSHA’s latest effort to improve worker health and safety places a heightened emphasis on preparedness. The directive to the HAZWOPER (Hazardous Waste Operations & Emergency Response) standard strengthens protection for firefighters and other responders to hazardous substance emergencies through a stricter, more adequate training and planning requirement.

During an inspection for HAZWOPER compliance, OSHA officers must now contact the company’s local fire department to confirm notification by the employer concerning the company’s emergency response plan. The new directive also requires the coordination of two backup personnel outside each hazardous area in an emergency response, similar to requirements in the revised respiratory protection standard.

It is essential for an employer to coordinate with firefighters and other local emergency response personnel to ensure preparedness on both sides in the event of an emergency. Without awareness of the proper training and equipment necessary to combat potential hazardous substance emergencies, an emergency is likely to prove even more detrimental to both the company and the response team.

This directive clarifies a memorandum regarding compliance with the HAZWOPER standard that was issued on October 30, 1996, in response to a chemical plant emergency in which five emergency response workers, some of whom were inadequately trained and equipped, were killed.

Confined Space Regs Are About to Get Tighter: What are Your Options?

OSHA will be issuing tougher standards for permit-required confined spaces in the coming months. Here are three ways to comply with OSHA's new rules:

- 1) Develop a Written Permit - Required Confined Space Program - This includes written procedures, permits, and provisions for sufficient employee training, an attendant, an entry supervisor, and testing and rescue procedures.
- 2) Mitigate for the Hazards - Safety improvements that help control hazards must be documented; write a mini-program to establish procedures and employee guidelines; ensure that employees complete the necessary training and certification.
- 3) Limit Access to the Confined Spaces - As a last resort, companies can avoid the new standards by closing off employee access to a confined space. As long as employees do not enter a confined space, OSHA does not require any programs.

EPA Releases Proposed Lead Hazard Identification Rule

In June 1998, EPA released a proposed rule which defines hazardous conditions for lead in soil, paint and dust. The new standard identifies when lead-based paint, lead-contaminated dust, and lead-contaminated soil all become hazards and the standard will apply to most housing built before 1978 and includes child-occupied facilities, such as day-care centers. EPA defines lead-based paint as paint with a concentration of 1 milligram of lead per square centimeter or as 0.5 per cent by weight. EI

first reported the upcoming release of the new rule in *EI Alert Vol. 8, No. 6. "Lead Hazard Control - What to Expect"*.

Basic Requirements of the Proposed Standard

The new standard, which will fall under Section 403 of the Toxic Substances Control Act (TSCA), also establishes residential lead dust cleanup levels and revises dust and soil sampling requirements. The rule proposes that lead-based paint presents a hazard when it is in poor condition and meets one of the following three requirements:

- More than two square feet of deteriorated paint on interior components with large surface areas, such as interior walls, ceilings, doors, and floors;
- Greater than 10 square feet of deteriorated paint on exterior components with large surface areas, such as outside walls, or;
- Deteriorated paint on more than 10 per cent of the total surface area of interior or exterior components with small surface areas, like windowsills, baseboards, fascia, soffits, or casings.

Comparison of the 1998 Proposed Standard With the 1994 Interim Lead Standard Currently Enforced by Virginia

In 1994, EPA released interim guidelines to assist public and private entities in identifying lead-based paint hazards and to establish priorities for control measures. The Virginia lead-based paint program is based on the 1994 interim standard. The proposed new standard by EPA aims to cut the current 1994 interim dust-lead hazards standard, as well as the dust-lead clearance levels, by one-half. The new proposed limits for dust (for both hazard determination and clearance criteria) are revised to 50 micrograms per square foot (ug/ft²) for uncarpeted floors and to 250 ug/ft² for interior windowsills. No limits have been established for carpeted floors and the levels for window troughs are unchanged at 800 ug/ft². The proposed soil-lead hazard component of the standard is set at 2,000 parts per million (PPM). However, in a separate draft guidance document, EPA is proposing a lead level concern at 400 PPM.

In addition to the final regulation, EPA intends to publish two guidance documents. The first will explain in greater detail the recommended response actions for controlling lead-based paint hazards and the second will provide advice to risk assessors regarding sampling of paint, soil, and dust. The standard plus the guidance documents will constitute the final rule and replace the 1994 interim guidelines.

Virginia's Posture on Lead Exposure

Recent discussions with compliance officers at the Virginia Department of Labor and Industry revealed that a more serious posture to employee lead exposure has been taken by the regulatory agency, especially in regard to the construction industry.

According to one compliance officer, their concern is not only with Lead-Based Paint (LBP) interim or proposed standards, but also with **any employee exposure to lead in the work environment.**

It was revealed that Virginia would no longer accept ignorance of the lead PEL as an excuse for noncompliance. If employees are exposed, knowingly or unknowingly, **violations will be targeted at all parties involved.** Proper employee notification, awareness training and compliance with all regulatory guidelines are paramount.

If lead is identified on a construction, renovation or demolition project, industrial hygiene sampling must be performed to demonstrate that lead concentrations in air are below the OSHA PEL of 50 ug/m³. If personal sampling has not been conducted to determine employee exposure then one must assume an exposure equal to, but not to exceed ten times the OSHA PEL and provide the proper respiratory protection according to the compliance officer quoting OSHA regulations. This assumption would require an employer to provide the necessary precautions, including personal protective equipment (PPE), to reduce the assumed exposure to lead below the current 50 ug/m³ PEL. With the possibility of even lower exposure levels being promulgated in the near future, and an increase in the regulatory policing of construction/demolition activities, non-compliance could prove to be an extremely costly liability.

For more detailed information about lead hazard control, please refer to "Lead Hazard Control – What to Expect," EI Alert, Vol.8. No. 5.

Lead Concentrations Above 30ug/m³ Trigger Response Actions

While the PEL for lead is 50 ug/m³, if exposure is determined to be at or above the Action Level of 30 ug/m³ over an eight-hour period. Employers are required to provide:

- ◆ Appropriate respiratory protection
- ◆ Appropriate personal protective clothing and equipment
- ◆ Clothing change areas

- ◆ Hand washing facilities
- ◆ Biological monitoring to consist of blood sampling and analysis
- ◆ Training regarding HAZCOM and safety requirements

According to CFR 1910.1025 Appendix C, workers shall receive a baseline physical to include:

- Detailed work and medical history
- Thorough physical examination
- Blood sample and analysis

If the initial determination or subsequent monitoring reveals employee exposure to be at or above the action level but below the PEL (50 ug/m³) then the employer shall repeat monitoring at least every six months. If exposure is above the PEL then quarterly monitoring is required until such a time those two consecutive tests reveal a decrease in PELs.

Furthermore, an annual examination must be performed for those employees for whom a blood-sampling test indicated a blood lead level at or above 40 ug/dl within the past 12 months. If an employee's blood level exceeds 50 ug/dl, then temporary removal from the site is required.

Since few companies seem to be abiding by the lead standards, many are in danger of fines for these violations. Therefore, the general industries, as well as others, are expected to be affected.



Virginia Submits State-Sponsored UST Program to EPA for Approval

The US Environmental Protection Agency will give notice of its approval for Virginia's underground storage tank program once Virginia's Petroleum UST Financial Responsibility Requirements become final. According to federal law, once the state makes application for state program approval, Virginia's UST program will operate in lieu of the federal program until EPA makes a final decision on the acceptance or denial of this request.

A state program may be approved by EPA if the state's program is

- ◆ no less stringent than the federal program
- ◆ provides adequate enforcement of its provisions
- ◆ meets certain notification requirements.

EPA has previously acknowledged that Virginia's UST requirements are more stringent than federal in areas summarized on the following table:

EPA's UST Program

- ◆ UST systems can be installed without corrosion protection if a corrosion expert determines there is no threat of a release due to corrosion.
- ◆ No permits or inspections required.
- ◆ Six options are available to tank owner/operator to demonstrate that UST systems were properly installed.
- ◆ Cathodic protection systems must provide for corrosion protection for as long as the UST system is used to store regulated substances.
- ◆ Requires corrective action to respond to contaminated soil and groundwater, but does not require permits.
- ◆ Requires owners/operators to measure for the presence of a release where contamination is most likely to be present, but does not specify number of samples, locations, or documentation required.
- ◆ Regulated substances specifically defined as petroleum or hazardous substances under Section 101 (14) of CERCLA.

Virginia's UST Program

- ◆ UST systems must have corrosion protection under any circumstances.
- ◆ Requires owners/operators to obtain a permit, undergo a state inspection, and/or obtain a certificate of use for tank installation, repairs, and permanent tank closures in accordance with VA Uniform Statewide Building Code.
- ◆ Only four of the six options provided by EPA are allowed in VA. Options not allowed include:
 - Certification by the installer
 - Inspection and approval of the installation by the implementing agency
- ◆ UST systems with impressed current corrosion protection must be installed so they can not be inadvertently shut off.
- ◆ Requires corrective action permit when corrective action is needed.
- ◆ Requires specific analytical parameters and submittal of test results, including a site map and a description of the area sampled.
- ◆ Definition of regulated substances more inclusive and broader in scope than the federal definition.

EPA has tentatively decided that the state's program meets all requirements necessary to qualify for final approval. However, EPA intends to review all public comments prior to making their decision on the approval of the Virginia UST program.

Company Size Not a Factor for RMP Compliance

The applicability of EPA's Risk Management Program (RMP) under the Clean Air Act, Section 112(r) is determined not by company size, but by the type and quantity of regulated substances used by the company. Therefore, large and small companies alike can be affected by the rule. Some regulated chemicals commonly used by small businesses include chlorine, ammonia, and propane. Exceeding 2,500 pounds of chlorine and 10,000 pounds of both ammonia and propane requires implementation of the RMP.

All companies using regulated substances that exceed their corresponding threshold quantities must comply with the rule, which became effective June 20, 1996. In addition, the deadline for developing and implementing the Risk Management Program and submitting the Risk Management Plan is June 21, 1999.

For more information on the Clean Air Act, Section 112(r); see "Prevention of Accidental Releases - A Brief Overview of the New Clean Air Act Rule," EI Alert, Vol. 6, No. 6. Both the EI Alert and a comprehensive list of regulated substances and their corresponding threshold quantities can be found on the Web at www.ei1.com. For further assistance with RMP compliance, please contact EI, Inc. at 1-800-717-3472.