

NASCO Launches New Website

Washington, IN – NASCO Industries announces that it has launched a new website design. Known for being an innovating market leader, NASCO utilizes it's popular, existing domain www.nascoinc.com to provide a new and fresh way to deliver information on protective outerwear solutions to the utility, petro-chem, food processing, transportation and wet environment industries. With user-friendly features like an industry driven product selection matrix, product literature downloads and resource information on industry related standards, NASCO supports it's products with relevant, timely and useful information. Please take a moment to view this new site.



This article was submitted by Andy Wirts, NASCO, Inc. For more information on NASCO products visit their web site at:

www.nascoinc.com

Hexavalent Chromium - Information to Help You to Comply with OSHA's New Standard

On February 28, 2006, OSHA published a final standard for occupational exposure to hexavalent chromium (Cr(VI)) covering general industry, construction and shipyards. The new standard lowers OSHA's permissible exposure limit (PEL) from 52 to five micrograms of Cr(VI) per cubic meter of air as an eight-hour time weighted average (TWA). The new standard goes into effect on May 30, 2006 for most employers. This and other new requirements (except for engineering controls) will be enforced 180 days from the effective standard date (1 year for employers with fewer than 20 employees).

Employers with less than twenty employees have one year to comply. MSA offers this guide to help users begin to understand and learn how to best comply with this new OSHA standard, and looks forward to serving as your informational source.

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The EEI eSafetyLine Manufacturer's Report is published quarterly and posted on the web site. All articles are based on content provided by the sponsors listed. EEI and INTEC would like to thank those companies for their contribution.

www.esafetyline.com/eei

Editor

Joe OConnor
(607) 624-7159
joconnor@intecweb.com

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The Hazard

Chromium hexavalent (Cr(VI)) compounds, often called hexavalent chromium, exist in several forms known as chromates. Close to a half million welders will be affected by this standard, although chromates can also be present in varied industries involving photographic pigments, dyes, surface coatings, paints, inks, plastics, thermal cutting, chrome plating and stainless steel fabrication.

CR(VI)-related major health effects include lung cancer, damage to nasal passages, skin rashes and ulcers, eye irritation, and possible eye, kidney and liver damage. This new standard aims to reduce the associated risks of Cr(VI) airborne exposure by lowering the permissible exposure limit (PEL). Covered industries are required to comply via use of personal protective equipment (PPE) for at-risk workers, engineering controls, medical surveillance and education. OSHA has provided for certain exemptions and exclusions as well as a transition period for employers affected by this regulatory change. OSHA also recognizes a special provision for aerospace painting.

OSHA's exposure determination covering general industry, construction, and shipyards contain identical provisions, although a performance-oriented option in all industries has been added for employer flexibility in making exposure determinations.

The following chart comparison illustrates OSHA's proposed and final requirements for hexavalent chromium respiratory protection:

OSHA STANDARD ITEM	PROPOSED	FINAL
Permissible Exposure Limit	PEL of 1 µg/m ³	PEL of 5 µg/m ³
Portland Cement Exclusion	Exclude exposures to portland cement in construction industry.	Expanded portland cement exclusion to general industry and shipyards.
Scope Exemption	None	Exemption for employers demonstrating that under no expected conditions will concentrations be above 0.5 µg/m ³ .
Special Provision for Aerospace Painting	All industries covered by standard achieve PEL through feasible engineering and work practice controls.	Employers only required to reduce exposures to 25 µg/m ³ and must then use respiratory protection to meet PEL.
Exposure Determination	Did not include exposure determination provisions for construction or shipyards.	Identical provisions for exposure determination for industry, construction, and shipyards. Performance-oriented option included for employer flexibility.
Medical Surveillance	Proposed that medical surveillance be offered to employees with signs and symptoms of Cr(VI)-related health effects.	Changed the exposure-based trigger to 30 or more days above the action level (one-half the PEL).

A Few Helpful Notes

- **OSHA's exclusion for portland cement** has been expanded to include general industry and shipyards, as new information demonstrated airborne exposures to Cr(IV) from portland cement in these industries are comparable to those found in construction.

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- **OSHA has provided a supplemental provision for the aerospace painting** industry, recognizing the unfeasibility of reducing PEL exposures through engineering and work practice controls when painting large aircraft and related parts. Employers within this industry are required only to reduce exposures to 25 $\mu\text{g}/\text{m}^3$ and must use respiratory protection to meet the PEL.
- **Worker education required by OSHA** under this new standard includes chromium (VI) related medical examination when necessary as well as providing portions of the standard for employees to view. Employers must keep accurate records and include dates, numbers and durations of all air monitoring conducted, operations, sampling methods used and results, job classifications and types of PPE worn when working with chromium (VI). Exposure records must be kept in accordance with 29 CFR 1910.1020.

What You Can Do Now

The new standard will require more workers to be provided with respiratory protection for exposure to hexavalent chromium. To comply, a traditional half-mask respirator with N-95 filters is approved for use, as long as exposure is no more than ten times the PEL level. For greater filtration efficiency however, MSA recommends a P-100 filter.

Respiratory Protection

MSA offers a wide variety of respiratory protection to comply with this new standard. The work application will determine the style of respirator as well as its composition.

The Advantage[®] Respirator Series offers both half- and full-facepiece styles. The NIOSH-approved **Advantage 200 LS** half-mask respirator's clear blue thermoplastic rubber facepiece offers unmatched fit and comfort. Its patented MultiFlex[®] System equalizes pressure on the face-seal area to prevent collapse during wear. The AnthroCurve[™] sealing surface instantly conforms to each user's unique facial characteristics. The Advantage 200 LS respirator can be fitted with a wide variety of cartridges and filters including P-100 and N-95 particulate filters.

Advantage full-face respirators enhance worker performance by offering a standard noseclip to reduce fogging and a soft, pliable silicone facepiece. A scratch resistant, optically correct lens eliminates distortion for excellent visibility and peripheral vision. Advantage Respirators use the same cartridges and filters as Advantage 200LS and exceed the eye protection performance requirements of ANSI Z87.1. MSA also offers natural rubber and silicone facepieces (Comfo[®] and Ultra-Twin[®] Respirators) for applications that require more durability and high heat resistance.

Comfort and Protection: MSA's Powered Air-Purifying Respirator

For maximum comfort on the job, the **OptimAir[®] MM2K PAPR** is well suited for industries with hazardous particulate environments. Complete units include motor/blower, nickel metal hydride (NiMH) battery, dual-rate charger, one Type HE (P-100) OptiFilter[®] XL cartridge, belt and choice of Ultravue[®], Ultra Elite[®] or Advantage 3000 Facepiece. Other features include water-resistant filter with optional prefilter and cover, a low-profile, lightweight NiMH battery pack and dual-rate smart charger. Meets NIOSH approval TC-21C-0758.

Detection and Monitoring

OSHA's sampling procedure for hexavalent chromium calls for particle collection using a 37-mm, 5 μm -pore-size PVC filters. To test for exposure using an MSA Escort[®] Elf Sampling Pump, you'll also need a 37mm filter cassette cases, and 5.0 μm -pore-size PVC filters.

MSA also offers a complete line of eye and face protection including faceshield frames, visors, goggles and eyewear. Your MSA distributor can offer you additional personal protective equipment such as gloves, boots and other protective clothing.

This article was submitted by MSA. For further information regarding OSHA's final standard on hexavalent chromium, see www.osha.gov. An MSA sales associate or qualified MSA distributor will be pleased to visit your facility and provide more information on how you can comply with this new OSHA standard. Simply call MSA Customer Service toll-free at 1-800-MSA-2222.

EEI Editorial:

EEI filed a Petition for Review of OSHA's final rule on Occupational Exposure to Hexavalent Chromium on Thursday April 27, 2006. EEI will be soliciting additional information from the membership in the near future.