JPIA Risk Control BULLETIN

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April 2017

New Regulations for Silica
Do you cut, drill, grind, or jackhammer concrete?

Federal OSHA finalized its new crystalline silica rule on March 25, 2016. On June 23, 2016, Cal/OSHA adopted the Federal Standard as is. The new rule significantly reduces the Cal/OSHA PEL of 100 micrograms per cubic meter (µg/m³) of air to 50 µg/m³, averaged over an eight hour time-weighted average.

If the job task's airborne concentration of crystalline silica will not at any time exceed the action level of 25 µg/m³, then this task is exempt from the new regulations.

Cal/OSHA has added a new Construction Safety Order §1532.3 Occupational Exposures to Respirable Crystalline Silica. Included is Table 1 –Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica. We encourage our members to follow Table 1, instead of using alternative methods to avoid the requirement for air monitoring.

Regardless of which exposure control method is used, all construction employers covered by the standard are required to:

- Establish and implement a **written exposure control plan** that identifies tasks that involve exposure and methods used to protect workers, including procedures to restrict access to work areas where high exposures may occur.
- Designate a **competent** person to implement the written exposure control plan.
- Restrict **housekeeping** practices that expose workers to silica where feasible alternatives are available.
- Offer **medical exams** including chest X-rays and lung function tests every three years, for workers who are required by the standard to wear a respirator for 30 or more days per year.
- Train workers on work operations that result in silica exposure and ways to limit exposure.
- Keep **records** of workers' silica exposure and medical exams.

Table 1 identifies the Equipment/Task, Engineering and Work Practice Control Methods, and the Required Respiratory Protection and Minimum Assigned Protection Factor (APF), based on ≤ four hours/shift or > four hours/shift. Two examples on page two.

Saw Cutting Concrete:

Equipment/task	Engineering and work practice control methods	Required respiratory protection and minimum assigned protection factor	
		≤ 4 hours/shift	> 4 hours/shift
Walk-behind saws 	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions: • When used outdoors • When used indoors or in enclosed area	None APF 10	None APF 10

Jackhammering Concrete or Asphalt:

Equipment/task	Engineering and work practice control methods	Required respiratory protection and minimum assigned protection factor	
		≤ 4 hours/shift	> 4 hours/shift
Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact: • When used outdoors • When used indoors or in an enclosed area OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer or greater, and have a filter with 99 percent or greater efficiency and a filter-cleaning mechanism: • When used outdoors • When used indoors or in an enclosed area	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10

An excellent resource when silica is an exposure, is The Center for Construction Research and Training (CPWR). CPWR is an international leader in applied research and training for the construction industry, and serves as the National Construction Center for the National Institute for Occupational Safety and Health (NIOSH).

In 2010, CPWR, NIOSH, and the Occupational Safety and Health Administration (OSHA), formed a Research to Practice (r2p) Working Group to facilitate communication and action on critical safety and health issues facing the construction industry. The Working Group identified silica as a priority area for outreach efforts. Go to www.silica-safe.org.

The website's *Control the Dust* planning tool takes you step-by-step through conducting a **job hazard analysis** for silica, selecting appropriate controls, and creating a job-specific plan to eliminate or reduce silica hazards. You can save as a pdf, print, and/or email your plan.

You will also be able to view Table 1 and then get specific equipment recommendations as shown below:

Walk-Behind Saw with Water—(Table 1 Entry)

1. Husqvarna FS 5000 D 14" - 36" with Water
2. Diamond Products CC7200 High Production Walk Behind Saw
3. MK Diamond Products, Inc. 14" Walk-Behind Saw with Water
4. CS Unitec, CSR 150 20" Pneumatic Walk-Behind Saw with Water
5. EDCO, Inc. 14" Down-Cut Walk-Behind Saw with Water
6. EDCO, Inc. 18" Down-Cut Walk-Behind Saw with Water
7. EDCO, Inc. 20" Self-Propelled Walk-Behind Saw with Water

When using wet methods, apply water at flow rates sufficient to minimize release of visible dust. Equipment must be designed by the manufacturer to work with water. Also, wet sweep any leftover slurry.

Jackhammer with Vacuum (Table 1 Entry)

1. Bosch BH2770VCD Brute™ Turbo Breaker Hammer with HDC400 Dust Collection and 9-Gallon Dust Extractor with Automatic Filter Clean - VAC090A
2. Bosch BH2770VCD Brute™ Turbo Breaker Hammer with Environmental Safety Solutions, LLC Enviroboot EB-1 and Enviro-vac EV-1\Vacuum

Jackhammer with Water (Table 1 Entry)

Water attachments for jackhammers are not commercially available. See OSHA Fact Sheet on retrofitting jackhammers with water sprayer: https://www.osha.gov/Publications/silica/OSHA_FS-3629.pdf

Are you ready? The new regulation goes into effect on June 23, 2017.

Coming Next Month . . .

Look for our announcement of the **H.R. LaBounty Safety Award winners.** We would like to thank 25 JPIA members for their participation in this program. We received 42 nominations from various district employees.

Next month we will highlight some of the ideas that received awards. For now, enjoy the safety video *Show Your Safety Style* (*link below*) from Western Municipal Water District from Spring 2013.

Nominations can be submitted at any time. Go to: http://www.acwajpia.com/SafetyAwards.aspx to complete the Nomination form. Stay tuned!

http://www.acwajpia.com/filecabinet/rmnopw/SA_2013_spring/Linda%20Garcia%20video%20Show%20Your%20Safety%20Style.wmv

Ergo Corner

Highlighting Sit/Stand Workstations

Are sit/stand workstations the latest fad or can they really be beneficial to our health? What we have learned is that sitting for long periods of time can increase our risk for heart disease and other medical problems including obesity, or chronic diseases such as Type II diabetes, cancer, and cardiovascular disease.

On the other hand, standing for long periods of time can cause other health issues, since muscles are placed in a constant state of contraction. When muscle groups in your legs, hips, back, and neck are tensed for extended periods of time, you are placing your back at risk of injury. There is also a risk factor for varicose veins and possible complications during pregnancy.

In our ergonomics training, we always stress "your next position is your best position." You want to adopt a number of comfortable positions during the day.

Things to do:

- Take a short walk away from your workstation.
- Stand up and stretch or walk in place at your desk without looking at your computer monitor.
- Get out of your chair whenever you take phone calls at your desk.
- Adopt a variety of comfortable postures throughout your workday.
- Take regular walking breaks.
- Walk to a co-worker's desk instead of sending an email.

Sit/stand workstations are not for everyone. However, for those that have them, most really like the added flexibility they have to change their positions during the day. A lot find that they have more energy and are more productive.

Sit/stand workstation in use.

Winston Dual Monitor

Hat Contract Electronic Frameset

Last March we discussed in this Bulletin, what to look for in a sit/stand workstation, along with highlighting a number of sit/stand stations. Here is what we have learned since then:

1. When ordering a sit/stand workstation, do not just go by price. Be sure you purchase through a reputable supplier or dealer. Ordering through web ads can lead to discontinued models or seconds.

2. Remember, if your sitting elbow height is below desk level, you will need a model with a suspended keyboard tray, or a keyboard tray under the desk and a wireless keyboard and mouse that you can easily transfer to the sit/stand workstation.

3. Be sure that the sit/stand workstation you choose does not require an extended

reach to lift. If it will raise and lower electronically, that is even better. One recent find is the Winston Sit/Stand Workstation. It has an expansive work surface, and the monitors can be independently adjusted. An electronic version is available. (See picture previous page.)

4. The units that sit on the desk do take up a lot of space. If your work area is in a cubicle, where the desk surface is independent of under desk cabinets, then placing an electronic frame underneath the desktop should be considered. Another find is the Hat Contract electronic frameset.
(See picture previous page.)

5. As the sit/stand stations become more popular, the price points are coming down.

Remember, your next position is your best position.

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What's Wrong With This Picture?

Look at the photo below and identify what is wrong in the picture. You may want to review this picture during your next safety meeting.

Answer:

Worker on the first rung below top of step ladder.