



# SAFETY NEWS

A publication presented by the CRCA Health and Safety Committee

March 2006



## KEEPING AN EYE ON SAFETY: COMPRESSED GAS

By Frank Marino, Safety Check, Inc.

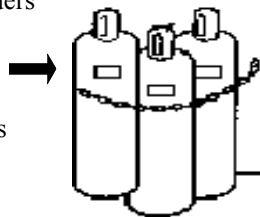
Due to the nature of gas cylinders, special storage and handling precautions are necessary. The hazards associated with compressed gases include oxygen displacement, explosion hazards, toxic effect of some gases of some, as well as the physical hazards of a ruptured cylinder. There are almost 200 different types of materials in gas cylinders including atmospheric, fuel, refrigerant, poison, and miscellaneous gases. If you plan on using propane on your jobsites, be sure to check compliance with NFPA 241 as well as NFPA 58. You can also use the simple steps listed below to help ensure a safe workplace.

### PRE-USE SAFETY:

- Check regulators for damage before using
- Ensure regulator valve is shut before installing
- Inspect all hoses before use

### OPERATION SAFETY:

- Secure bottles in upright position at work site
- Never attempt to refill a gas bottle
- Do not smoke near compressed gas bottles
- Never rely on color of cylinder for identification.
- Never attempt to repair a cylinder or valve
- Shut the cylinder valve when gas is not in use
- Open cylinder valves slowly.
- Never fully open cylinder valves.
- Don't store acetylene cylinders on their side
- Close all valves and replace caps before moving
- Store empty and full cylinders in separate areas
- Label all cylinders  
EMPTY or FULL
- Never roll or drag cylinders



Cylinders secured

### WORK AREA SAFETY:

- Do not vent flammable gases inside a building
- Ensure bottles are secured in a proper storage area
- Keep oxygen stored away from flammables
- Keep bottles capped when not in use
- Label all empty bottles
- Store bottles in ventilated dry area

### DO NOT:

- Drag or slide cylinders, even for short distances.
- Drop cylinders or permit them to strike each other violently.
- Use cylinders as rollers for moving material
- Permit oil, grease, to come in contact with cylinders, valves, etc.
- Remove labels.
- Lift a cylinder by its cap using a sling or a magnet.
- Attempt to catch a falling cylinder.

### DO:

- Move cylinders using a suitable hand truck or cart.
- Leave the valve protection cap in place until the cylinder has been secured in place and is ready to be used.
- Secure cylinders when in storage, transit, or use.
- Use a cylinder cage or cradle to lift a cylinder.

## CRSP DEVELOPING SAFETY FILM FOR OSHA

In February, CRCA's Chicagoland Roofing Safety Partnership filmed CRCA Professional Roofing Contractors at the Joint Apprentice Training Center to illustrate how contractors work safely using mechanical equipment near the roof's edge. CRSP filmed Roof Cutters, Heat Welding and Vacuuming to show how contractors can work safely with mechanical equipment vs. axes and other hand tools. Chicagoland OSHA representatives were present to witness the filming and discuss safety procedures with CRCA. The goal is to have OSHA recognize nationally procedures that are safe and productive. A special thanks to Adler Roofing & Sheet Metal, Olsson Roofing and Waukegan Roofing for supplying staff and equipment to make this event possible as well as to the Joint Apprenticeship Training Center for providing the state-of-the-art facilities.



## PROTECT EMPLOYEES' HEARING

Most workplaces have potential safety hazards. When protecting employees, roofing contractors focus on the more obvious hazards, such as fall protection and burns.

However, in many work environments, noise-induced hearing loss often is an overlooked occupational hazard. Hearing damage resulting from overexposure to excessive noise levels is insidious because it occurs gradually. And because it has no visible effects, hearing damage often goes undetected.

During the course of a day, roofing workers may operate roof cutters and saws and work near gas-powered generators, which can produce extremely loud noise levels. As a result, hearing protection may be required.

### The basics

The first step in protecting an employee's hearing is understanding how sound affects the human ear. Sound begins as an acoustic wave created by a vibrating source (think of a guitar string being plucked). The ear receives the vibration and directs it to the eardrum. From the eardrum, the wave is transmitted through the middle ear to the inner ear and transformed into nerve impulses that travel to the brain, which then interprets the impulses as sound.

On a job site, excessive noise levels are easy to recognize. When noise levels rise above 80 decibels (dB), people have to speak loudly. When noise levels range between 85 dB and 90 dB, people have to shout. When noise levels reach 95 dB or more, people must move closer together to hear each other. A good rule of thumb is if workers have to shout to hear one another over the sound generated by equipment, the noise level of the equipment likely is higher than 95 dB.

In its early stages, hearing loss can affect a person's ability to understand speech. As hearing loss progresses to lower frequencies, the ability to hear sounds in general is affected. Over a long period of time, the effects of noise-induced hearing damage can include a lack of ability to understand speech, tinnitus (or ringing in the ears), muscle tension, stress, ulcers, increased blood pressure and hypertension.

Occupational Safety and Health Administration (OSHA) standard Subpart D, 29 CFR 1926.52, "Occupational noise exposures," requires contractors to protect employees from exposure to sound levels. According to this standard, an employer must administer a continuing, effective hearing-conservation program whenever employee noise exposures exceed certain values.

### Identifying the problem

To solve a potentially hazardous noise-related problem on a job site, the source must be identified. You can inspect a job site and ask yourself some questions. For instance, where will the loudest equipment be located during roofing operations? How many workers will be exposed to the noise?

To determine noise levels, you can use a sound level meter, or dosimeter, which measures sound waves to sample a person's exposure to noise. A dosimeter can help determine potentially hazardous noise levels produced by particular tools and equipment and the length of time workers spend operating them.

Another option is to hire an industrial hygienist to monitor noise levels. To conduct general noise sampling for a couple of hours can cost less than \$500.

To monitor one person's exposure to noise levels during a workday costs about \$1,500. The simplest option is to ensure workers exposed to loud noise wear ear plugs while they work.

### Solving the problem

If administrative or engineering controls cannot reduce employee exposures sufficiently below dangerous levels, personal protective equipment must be provided. Look for hearing protection with the highest noise-reduction rating available. The higher the noise-reduction rating, the greater the protection offered.

When roofing workers are wearing hearing protection, they must be even more aware of their surroundings. On a tear-off, for example, workers wearing hearing protection and operating roof cutters must know where each is cutting because they may not hear each other. OSHA's fall-protection rules require that the safety monitor is able to be heard by those being monitored.

A typical roofing job site probably never is going to be a quiet place to work. Between tear-offs and installations, noise will continue to be a potential hazard. You can help reduce the effects by ensuring workers adequately are protected from noise-induced hearing damage.

*Peter Greenbaum is NRCA's manager of education programs.*

*Reprinted with permission, Professional Roofing, October 2005*

**MARK YOUR CALENDAR!  
CRCA GOLF OUTING**



**Thursday, July 13, 2006  
7:45 am registration  
9:15 am Shotgun**



## SAFETY NEWS

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## SAFETY SUCCESS: BUILDING A GENUINE SAFETY CULTURE

Nearly every owner, architect, contractor, and subcontractor acknowledges the benefits associated with a strong safety culture within an organization.

Companies with strong safety cultures enjoy reduced injury frequency, increased efficiency, improved employee morale, and reduced costs.

However, many companies with well-developed programs struggle to foster a positive safety culture within their organizations. Why?

### Following the regs not enough

Companies are making strides in complying with standards enforced by regulatory entities, mandates from their insurance carriers, and requirements from owners.

These companies are “doing” all that they’re asked to do regarding safety. They develop safety programs, perform audits, do weekly toolbox training meetings at their jobsites, preach safety, and even utilize safety incentive programs. Despite these actions, some companies are not seeing a significant positive impact on injury reduction.

Some of their frustration can be founded in inconsistent behavior. A culture is defined as consistent beliefs, values, and behaviors among all members of a population.

In regard to a safety culture, it is possible that the individuals responsible for leading the safety effort have not fully embraced the concept. This lack of belief can translate throughout the company and short-circuit the safety culture they strive to achieve.

Through comments and actions, a contradictory message about safety could be sent to employees every day. Comments such as, “Safety is just common sense,” “Safety is the safety director’s responsibility,” “Accidents just happen,” and “Safety is a necessary evil,” often define the safety culture of a company more accurately than a room full of safety programs and procedures.

### Discipline doesn’t do it

Companies with challenged safety cultures may also cut corners on safety without knowing it by utilizing disciplinary action as their most effective means of promoting safety, and wrongly believing that mere regulatory compliance will, by itself, eliminate jobsite and behavioral hazards.

What about those companies with strong safety cultures? How are they different? Companies with effective safety cultures genuinely believe in their safety programs.

The leaders of these companies understand that the goal of having zero injuries is possible and they demonstrate this belief in their daily actions and decision making. They are passionate about it.

These companies enact effective safety processes to help implement their programs and measure results; employees receive education about the programs and are involved in safety initiatives.

Employees working in a strong safety culture know their specific roles in the implementation of the safety program and are thanked and recognized by their companies for their triumphs. Through teamwork, these companies find safer, more efficient ways to complete projects and utilize teamwork to make their workplaces safer.

### Where to begin

Where does a company begin to develop a strong safety culture?

It starts with buy-in from the company leaders who develop well-defined safety programs. These programs outline the safety responsibilities for each employee, define policy statements and goals, set training requirements to educate employees about safety, and identify how the policies will be enforced.

Additionally, safety committees and recognition programs will help promote employee “buy-in” and confirm management’s commitment to safety.

### Passionate commitment

Strong safety cultures cannot work without a sincere and passionate commitment from the top of the organization. If this commitment exists, companies will gain strength, provide safer work environments for employees and build strong alliances between owners, architects, contractors and subcontractors.

*Editor’s note: Bobby Pirtle and Renee Hollingsworth are with the Safety Management Group in Carmel, Indiana ([www.smgindy.com](http://www.smgindy.com)) which advises companies on safety management as well as provides safety training in construction and a variety of other industries.*

*Reprinted with permission, Construction Purchasing, October 2005*



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*Address Correction Requested*

**CRCA Upcoming Events - Save the Dates!**

White Sox Game ~ April 21, 2006  
Membership Meeting, May 9, 2006  
CRCA Golf Outing ~ July 13, 2006

**Chicagoland Roofing Safety Partnership  
(CRSP) Training Schedule**

April 19, 2006 - Recordkeeping  
July 19, 2006 - Accident Investigation/Reporting  
October 18, 2006 - Fire Safety  
January 17, 2007 - Fall Protection

## PROMOTE YOUR SAFETY PRODUCTS!!

In an effort to promote **Safety** to the Chicagoland Roofing Industry, CRCA is offering manufacturers and distributors an opportunity to showcase their Safety Products. In each issue of the CRCA SAFETY NEWS, one manufacturer and one distributor will be invited to provide advertisement of their products. Details listed below:

- Deadline: June issue (May 15), Sept. issue, (August 15), January issue (December 15)
- Cost: \$300
- Size: 8.5x11 flyer
- Coverage: CRCA Members & Chicagoland Roofing Contractors
- For more information, call the CRCA office at 708-449-3340 or by email at [info@crca.org](mailto:info@crca.org)



## CALLING ALL ROOFING CONTRACTORS! TRAINING OPPORTUNITY!

The Chicagoland Roofing Safety Partnership (CRSP) will be offering training, geared to Roofing Contractor Office Staff, with a focus on the importance of Recordkeeping.

- WHERE:** Aramark Auditorium, 2300 Warrenville Rd., Downers Grove
- WHEN:** April 19, 9-11:30 am
- WHO:** All Roofing Contractor Staff responsible for recordkeeping.
- WHY:** To join with the Chicagoland Roofing Contractors in making a "Commitment to Safety"

Other seminars to be offered include:

- Accident Investigation - July 19, 2006
- Fire Safety - October 18, 2006
- Fall Protection - January 2007

*\*Free! Cost underwritten by the  
Chicagoland Safety Partnership / CRCA*

For registration: call the CRCA office at 708-449-3340 or visit the CRCA website ([www.crca.org](http://www.crca.org))

**Registration Deadline: April 14, 2006  
DON'T DELAY! REGISTER TODAY!**