



Consider This

HEALTH & SAFETY NEWSLETTER
APRIL 2016



Reviewing ANSI Pipe Marking Standards



New Rule to Prevent Silica Dust Inhalation



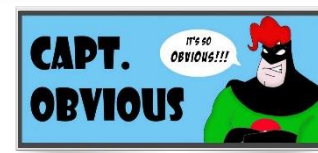
The Ins and Outs of Pre-Project Safety Meetings



Encouraging Safety without the Gimmicks



May is National Water Safety Month



Captain Obvious



Reviewing ANSI Pipe Marking Standards

When working in just about any facility and you look up, you are likely to see dozens of different pipes that seem to be running in every direction. These pipes are carrying all sorts of different things to areas throughout the facility where they are needed. If the pipes are not properly labeled, however, it can be a recipe for disaster. This is why the ANSI A13.1 standard was developed and put in place.

This standard, which is followed in facilities throughout the country, addresses what types of pipe markings are necessary in which situations. These standards are not strictly required in most industries, but a growing number of industries have adopted it because of the excellent benefits it provides.

Why Pipe Marking is Important

It is essential to know which pipes are transporting what type of thing. For example, one pipe may be supplying water to a machine for cooling, or to the fire suppression system. Another pipe may be transporting natural gas that is used in fuel for a furnace.

Other pipes may contain things like corrosive chemicals, acids, or harmful gasses. If you can't easily tell what pipe is used for what, it can quickly lead to a disaster. Some specific types of disasters that a facility may experience if they don't have their pipes properly labeled include the following:

Machine Malfunctions

- If a machine requires a specific fluid and it is attached to the wrong pipe, it can cause extensive malfunctions and even permanently damage the machinery.

Maintenance Problems

- If proper precautions are not taken when the maintenance team is replacing an area of piping, they may cut into a pipe thinking it only has water in it, but it could actually be filled with a flammable gas. The results could be deadly.

Opening the Wrong Valves

- Someone may look to open a pressure relief valve to reduce the steam pressure in a machine. If it is nearby another valve that contains a toxic chemical, they may open the wrong one and expose everyone to the danger.

Slowing Emergency Response Times

- Some pipes contain things that may be needed in an emergency. When an emergency responder sees multiple hook up areas, they have to figure out which one is for the fire suppression system themselves if it is not labeled properly.

Continued on next page

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Reviewing ANSI Pipe Marking Standards (Cont.)

Of course, there are many other examples of problems that could occur when the pipes are not clearly marked with what they contain. The ANSI A13.1 standard also covers the valves and connectors that are used in piping systems, so following this set of standards will help ensure everyone is easily aware of what is within any given pipe.

Most Common Color Coding for Pipe Marking

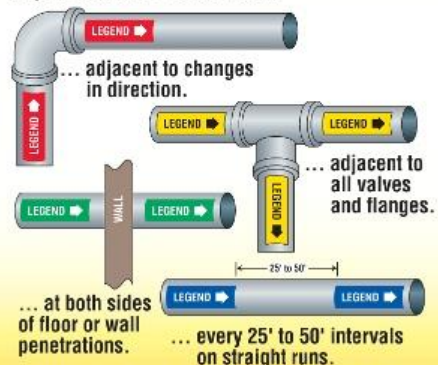
The ANSI A13.1 standard lists a number of very specific color combinations that are to be used for certain pipes. Using these colors will help ensure everyone can see what is in a pipe, even if they can't clearly read the text that is on the piping itself.

If you have pipes that carry something that doesn't fit into any of these categories, you can create your own color codes. When doing this, it is important to document exactly what the color standard is, and how it is being used.

Placement Recommendations

- Guidelines as to where and at what intervals marker should be placed.

Pipes shall be marked...



Yellow	Flammable Fluids & Gasses
Red	Fire-Quenching Fluids
Orange	Toxic or Corrosive Fluids & Gasses
Green	All Water (Potable, Boiler, etc.)
Blue	All Air (Compressed, Lab, etc.)
Brown	Combustible Fluids & Gasses
Purple	Definable by user
Black	Definable by user
White	Definable by user
Gray	Definable by user

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New Rule to Prevent Silica Dust Inhalation

The Occupational Safety and Health Administration (OSHA) has issued a final rule to curb lung cancer, silicosis, chronic obstructive pulmonary disease and kidney disease in America's workers by limiting their exposure to respirable crystalline silica. The rule is comprised of two standards, one for Construction and one for General Industry and Maritime.

OSHA estimates that the rule will save over 600 lives and prevent more than 900 new cases of silicosis each year, once its effects are fully realized. The Final Rule is projected to provide net benefits of about \$7.7 billion, annually.

About 2.3 million workers are exposed to respirable crystalline silica in their workplaces, including 2 million construction workers who drill, cut, crush, or grind silica-containing materials such as concrete and stone, and 300,000 workers in general industry operations such as brick manufacturing, foundries, and hydraulic fracturing, also known as fracking. Responsible employers have been protecting workers from harmful exposure to respirable crystalline silica for years, using widely-available equipment that controls dust with water or a vacuum system.



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New Rule to Prevent Silica Dust Inhalation

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New Rule to Prevent Silica Dust Inhalation (Cont.)

Key Provisions

- Reduces the permissible exposure limit (PEL) for respirable crystalline silica to 50 micrograms per cubic meter of air, averaged over an 8-hour shift.
- Requires employers to: use engineering controls (such as water or ventilation) to limit worker exposure to the PEL; provide respirators when engineering controls cannot adequately limit exposure; limit worker access to high exposure areas; develop a written exposure control plan, offer medical exams to highly exposed workers, and train workers on silica risks and how to limit exposures.
- Provides medical exams to monitor highly exposed workers and gives them information about their lung health.
- Provides flexibility to help employers — especially small businesses — protect workers from silica exposure.

Click [HERE](#) to be directed to the OSHA Fact Sheet

Compliance Schedule

Both standards contained in the final rule take effect on **June 23, 2016.**, after which industries have one to five years to comply with most requirements, based on the following schedule:

Construction

June 23, 2017 - One year after the effective date

General Industry and Maritime

June 23, 2018 - Two years after the effective date

Hydraulic Fracturing

June 23, 2018 - Two years after the effective date for all provisions except Engineering Controls, which have a compliance date of **June 23, 2021.**

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New Rule to Prevent Silica Dust Inhalation

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The Ins and Outs of Pre-Project Safety Meetings

When it comes to project safety, it's never too early to prepare! Before starting a project, managers and project staff should initiate a "kick-off" or pre-project meeting as part of their safety program. These meetings provide a crucial opportunity to discuss the project's scope of work and clearly communicate the safety expectations and hazards.

Who should attend?

Key players of the project should attend the meeting, which might include: the Company Safety Director, Project Manager, Site Safety Officer, field staff, and even the client representative. Safety communication equals project success, so the more employees you reach the better!

When and where should meetings be held?

It's important to hold kick-off meetings near the project's start-up date so the meeting information stays fresh in the mind. Holding a meeting face-to-face is ideal, but projects are often completed by multiple companies located miles apart. Even if project employees are separated by distance, meetings can be held via telephone conference, through an online meeting format such as WebEx™, or by live video feed.

What information should be provided?

Prior to holding the safety meeting, a Project Safety Analysis (PSA) form should be completed by the Company Safety Director or Project Manager to evaluate site-specific safety information. The PSA should cover topics such as project background, scope of work, emergency procedures, roles and responsibilities, training requirements, site hazards, and key project documents. The PSA could be supplemented with safety training videos, graphics, and task-specific hazard-analyses.



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Continued on next page

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The Ins and Outs of Pre-Project Safety Meetings (Cont.)

How can this benefit my project?

The ultimate goal of a pre-project safety meeting is to be proactive about safety, educate employees about site-specific project hazards, and help to eliminate the following risks:

- Employee injury
- Lost work time
- Worker's compensation claims
- OSHA recordable incidents

Taking the time to prepare employees on project safety and expectations is the key to a successful project!

Key Steps for a Safe Field Season

Work Safe, Live Safe, Stay Safe



Work Plan & Procedures
Identify the scope of work and compile all relevant procedures.



Contact
Field Services and Health & Safety (H&S) Coordinators, in accordance with your Company's policies.



Develop a Health and Safety Plan (HASP) and ensure all job safety analyses (JSAs) are included.



Continually evaluate tasks/JSAs to confirm that the site-specific tasks are appropriately managed.



Conduct daily tailgate talks covering on daily safety concerns or site-specific scenarios



Schedule a PSA call at least 3 days before field work. Include internal and external project managers, and your H&S Supervisor.



Communicate with H&S Supervisor or personnel if there are any near-misses or on-site incidents or accidents.



Determine safe and unsafe actions/hazards daily during field work.



Review the field event. Debrief and discuss the key events. What went well? What needs improved upon?



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Over the years, companies have tried numerous ideas to enhance safety management. In the '70s, DuPont's STOP approach was widely popular towards managing the human aspects of safety. In the '80s, Total Quality Management (TQM) was trendy tactic. The '90s set the stage for behavior-based safety and culture change. The turn of the century brought us Six Sigma and a host of black belt ninjas. There are components of each of these paradigm shifts that have positively impacted the ongoing process of enhancing safety programs, accident prevention, employee buy-in, etc. Yet, companies are still trying to figure ways of getting employers to buy-in to safety, boost engagement and accountability, and own safety as a personal value.

Is it any wonder that a workforce has a tough time buying into safety when they still see or hear the following:

- Recordable incident and lost time boards mounted prominently to shine focus on unfavorable results (because just one incident is unfavorable)
- Safety slogans reading as if they were ripped from a Dr. Seuss book
 - *Don't be a fool, use the proper tool.*
 - *Safety first. Avoid the worst.*
 - *The chance taker is the accident maker.*
- Corrective actions stating that employee should 'work safer' or 'be more cautious' (one might as well tell them to be a brain surgeon or US President for all the good it will do)
- Pizza party or steak dinner for everyone for reaching 'one year without a lost time injury' (while 50% of the personnel honestly tried to never take a shortcut around safety and the other 50% took the shortcuts, resulting in a few minor injuries...yet everyone gets the reward)

The outcome of safety each workday is a result of a series of individual decisions and actions marrying together and lining up. One wrong decision could have changed everything. Companies need every single person to embrace the health and safety of themselves, coworkers, family members and community through their decisions and actions.

If the goal to 'be safe' is thought to emanate via gimmicks and generalizations, then the *nobody moves – nobody gets hurt* philosophy is the fastest way to get there. Challenge personnel to choose, act, will, and decide upon safety based on the circumstances at hand.

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In recognition of the popularity of swimming and other water-related recreational activities in the US, and the resulting need for ongoing public education on safer water practices, the month of May 2016 is National Water Safety Month!

Water Safety Tips courtesy of the “Simple Steps Save Lives” Program

1. **Staying close, being alert and watching children in and around the pool:**
 - Never leave a child unattended in a pool or spa and always watch your child when he or she is in or near water
 - Teach children basic water safety tips
 - Keep children away from pool drains, pipes and other openings to avoid entrapments
 - Have a telephone close by when you or your family is using a pool or spa
 - If a child is missing, look for him or her in the pool or spa first
 - Share safety instructions with family, friends and neighbors.
2. **Learning and practicing water safety skills:**
 - Learn how to swim and teach your child how to swim
 - Learn to perform CPR on children and adults and update those skills regularly
 - Understand the basics of life-saving so that you can assist in a pool emergency.
3. **Having appropriate equipment for your pool or spa:**
 - Install a four-foot or taller fence around the pool and spa and use self-closing and self-latching gates; ask your neighbors to do the same at their pools
 - Install and use a lockable safety cover on your spa
 - If your house serves as a fourth side of a fence around a pool, install door alarms and always use them. For additional protection, install window guards on windows facing pools or spas
 - Ensure any pool and spa you use has compliant drain covers and ask your pool service provider if you don't know
 - Maintain pool and spa covers in good working order
 - Consider using a surface wave or underwater alarm.



Source: <http://nationalwatersafetymonth.org/>

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Why is it that safety professionals are getting heckled when we provide reminders on basic safety information and then go into a facility to conduct a mock-OSHA audit and find the same type of potential hazards or non-compliance items over and over again? Each month we feature a "Captain Obvious" photo to share simple safety reminders that are found on jobsites every day.



CORRECTIVE ACTIONS

- Remove board used as plank/walkway to access ladder.
- Provide safe access to ladder via alternate method. Design new walkway if access is needed on a frequent basis.
- Train personnel on fall hazards and fall protection.



Fall Hazard



Board used as
access to ladder

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New Rule to Prevent Silica
Dust Inhalation

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the Gimmicks

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Contact Monica Meyer at
[Monica.Meyer@ehs-
support.com](mailto:Monica.Meyer@ehs-support.com) today to learn
more about how we can help
you manage your health and
safety risks.

