

IN THIS ISSUE

EVENTS

UPCOMING EVENTS	P3
LOCAL AND NATIONAL	
NOVEMBER MEETING	P5

COLUMNS

INTERIOR CLEANING	P1
PRESIDENT'S MESSAGE	P2
HABITAT FOR HUMANITY	P6
SEPT MEETING WRITE UP	P9
2015 FALL TECH SEMINAR	P12
SAFETY COLUMN	P14
LEGAL COLUMN	P19

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SEE PAGE 13 FOR OUR SPONSORS

SEE PAGE 20-21 FOR OUR BUSINESS CARD DIRECTORY

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PROCEDURES FOR THE CLEANING OF INTERIOR STONE

by Thomas H Rudder, President; Hydrochemical Techniques, Inc.



Our industry is generally involved with the cleaning and restoration of building exteriors. One hears very little about the cleaning of interior substrates. This article is dedicated to the cleaning of the limestone, marble, granite, brick or terra cotta found in building interiors. Architects have always appreciated the color and architectural accents that interior stone can bring to building lobbies and other impression rooms within the building. Stone is used on floors, baseboards, wainscots, or on entire walls and ceilings. Although interior substrates do not have to endure the ravages that weather imposes on exterior stone, they do have their own contaminants that can compromise their beauty.

Interior contaminants are mostly carbon based and come from misplaced hands, shoes and hair. Soot from old oil or coal fired heating systems is another carbon-based contaminant that gets deposited on interior stone. It was not that long ago that people were allowed to smoke within a building and thus more carbon.

Carbon-based interior contaminants are generally easy to remove and will react best with a mild alkaline cleaner. If a given cleaner is capable of removing the dirt and is mild enough, the cleaning can be accomplished with a one step process. If a stronger alkaline is required, then the cleaning process will require a second step that will consist of a mild acidic after wash. The acid after wash will perform two functions. The first is to remove any inorganic material (metals) that may be on the surface and the second is to neutralize any residual alkalinity from the first step. For polished stone use only mild cleaners. The polished surface limits the porosity of the stone so most of the contaminants stay on the surface and are easily removed. Exercise extreme caution using the stronger cleaners on surfaces that have been honed to a polished finish. The stronger cleaners may compromise the finished surface.

The best results for interior cleaning are achieved using the following process. First perform some test cleaning areas to determine the proper cleaning product and the appropriate dilution ratio of the product. Give the sample areas plenty of time

see Cleaning page 3

THE AGGREGATE INSIDE

Interior Building Cleaning Procedures

A review of the procedures for cleaning stone in interiors of buildings.

continued on page 3

Safety Column

The one tool employers and employees should be using all the time.

see page 14

Check Out Our Upcoming Events

Local & National Events

see page 3

Legal Column

An Ounce of Prevention is Worth a Pound of Cure

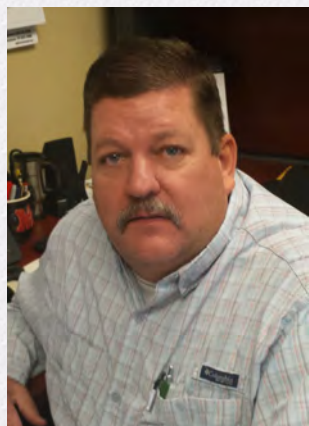
see page 19

ICRI MISSION STATEMENT

The mission of the International Concrete Repair Institute is to be a leading resource for education and information to improve the quality of repair, restoration, and protection of concrete and other structures in accordance with consensus criteria.

ICRI is an organization composed of Engineers, Consultants, Contractors, Manufacturers and other Material Suppliers, Property Managers and Owners all working together for the betterment of the industry and of all involved. Providing an open forum to speak about our work, new technologies and methods, exchange ideas. Creating and following standards to produce the best results for all involved.

PRESIDENT'S MESSAGE



Dear ICRI BW Chapter Members,

With the 2015 year winding down and the seasons changing, local sports teams struggling and the holiday season on the horizon, we are all faced with new sets of challenges that we need to address during the push through to next year.

As we know, the change in the weather affects how we all approach our work. Working with Owners on reasonable expectations for what may be accomplished, selecting appropriate materials, implementing best constructions means and practices and struggling to schedule projects with respect to fluid weather considerations are all variables that must be addressed in order to achieve the highest quality end product. It's a complicated equation that we navigate each fall and winter and I wish you all success in the endeavor. Please remember that resources are available to you on the ICRI website that may easily be downloaded and included in your approach.

I will let each of you self reflect on your own respective sports teams. Mine are stinking the joint out. Fortunately, new sports seasons are starting and we can switch our attention and hopes to other teams.

Although the Holiday season gets very hectic, there are many opportunities for networking and meeting new contacts within the industry. Please be safe in your travels and don't be the person at your company party that everyone talks about the next day. As a Chapter, we are still considering the possibility of a Holiday gathering. We will keep you posted.

The 3rd Quarter Dinner Meeting held at McCormick and Schmicks in McLean, VA, proved to be a success. Thanks to Michael Mudrick with KOSTER American, Inc. who provided an animated presentation and discussion session that focused on below grade, negative side waterproofing at the Empire State Building. There apparently are still opportunities at this site for similar future work for those who are interested. The venue and the food were great and provided another pleasant departure from the normal fare.

The remaining upcoming events that will occur over the next few months are as follows:

1. The 2015 Fall ICRI National Convention was held October 14-16 in Fort Worth, Texas. Please see the 2016 1st Quarter Aggregate for a re-cap;
2. The 2015 BW Chapter Golf Outing has been rescheduled for October 30, 2015. It will be held at

the Little Bennett Gold Course in Clarksville, MD. Unfortunately, the effects of a hurricane off-shore forced the original date to be canceled. The good news is that more people signed up and we are looking for record attendance. Good things come in strange forms. Again, a re-cap will be provided in the next addition;

3. The 4th Quarter Annual Awards Banquet will occur on November 5, 2015 and will be held at the Gaithersburg Marriott Washingtonian Center in Gaithersburg, MD. Again, this is a new venue for us so I hope everyone enjoys the facility. A nice variety of projects have been presented for award consideration and I wish good luck to each of you who have submitted. Please be prepared to vote for new Board members either prior to or at the event. The ballots will be available soon for consideration. Additionally, please take advantage of the opportunity to submit applications for scholarships that will also be awarded at this meeting;
4. The Montgomery County Habitat for Humanity will take place on November 14, 2015. Volunteers are encouraged and welcome. The Chapter is volunteering both labor as well as a monetary contribution. Please contact Shannon Bentz or Andrew Carr with any questions.
5. The Fall Technical Seminar will take place on December 3, 2015 and will be held at the office of Concrete Protection and Restoration, Inc. (2811 Lord Baltimore Drive, Baltimore, MD 21244). The topic is "Concrete – A Granular Insight into its Many Applications and Formulations". Look for the e-mail blast of the flyer and I hope to see many of you there.

In closing, I would like to thank the current Board members for their invaluable help in making this year a success. Their investment in time and effort certainly helped keep the Chapter heading in the right direction and made the Board a much more manageable and efficient body. We continue as a Chapter to address declining membership but I hope that some of the steps taken this year will encourage participation and attract new members. In particular, changes of venues and dinner fees added a pleasant, if not effective, alternative. We shall see how it plays out. Feel free to provide feedback on these steps to myself or any other Board member.

Again, many thanks to all for a great year.

Brian T. McCabe

2015 ICRI BW Chapter President

Concrete Protection & Restoration, Inc.

PROCEDURES FOR THE CLEANING OF INTERIOR STONE

Cleaning continued from page 1

to thoroughly dry and then observe the results. Make sure, through testing, that the end result is what is desired before commencing on the project. The manufacturer of the cleaning products can have their representative assist the contractor/architect/owner in determining the correct product and its dilution. After applying the cleaning product and waiting the proper dwell time, the stone must be rinsed. In all cleaning projects, the rinse cycle is just as important as the choice of a cleaning product. For interior cleaning, the best results are achieved by using water pressurized through an airless sprayer that is capable of 1500 psi and ½ a gallon per minute. The sprayer's gun will deliver the spray in a 15 to 25 degree fan making the rinse even and controllable. The effluent from the rinse process can be easily collected with one or more wet vacuum cleaners. The entire process is an efficient, controlled closed loop system. The pressurized water rinse is necessary to reach into the pores of the stone and to remove all traces of the cleaner and the contaminants.

Workmen who have experience using the cleaning system outlined above will have little trouble with the protection of contiguous areas. Normal common sense applies. If there is a rug at the base of the wall that is being cleaned, it must be removed or at least rolled back. The floor or wall electrical outlets must be covered. Any artwork or signage must be removed and any wooden surface must either be protected or removed. The wet vacuum cleaner described above will easily be able to control the effluent.

It is always best for any cleaning work to be performed after normal working hours when the workers will have the building to themselves. Although interior cleaning products and the application and rinse process is generally non-hazardous, it is always preferable to keep the building's occupants away from the work areas. Even a mild smelling cleaner can cause some people to have unrealistic concerns and to complain.

The exterior of a building will dry fairly quickly after cleaning. It has the wind and the sun helping the moisture within the stone to evaporate. Not so with interior stone. The air pressure of the ambient air within the building is relatively high and constant, so it will take some time for the residue of the rinse water to evaporate into the building's atmosphere. In the meantime, due to the varying porosity of the stone, it may dry unevenly. The areas around the substrate's joints will hold more moisture and might, at first, look darker than the surrounding stone. The impression can be that it was incompletely cleaned and the temptation will be to re-clean the wall. But it is best to just leave it alone and give the surface the time it needs to dry. Depending on the humidity, the season and the building's air handling system, it may take as long as three months for interior stone to completely dry.

The results of a properly managed interior cleaning program are generally very satisfactory. The advice to follow, as on all building cleaning projects, is to use experienced contractors and cleaning products from manufacturers who have a long demonstrated history of successfully cleaning stone.

UPCOMING CHAPTER EVENTS

- Oct 30, 2015 **ICRI-BWC Golf Tournament**
Location: Little Bennett Golf Course
Clarksburg, MD
- Nov 5, 2015 **ICRI-BWC Awards Meeting**
Location: Gaithersburg Marriott
Washingtonian Center
Gaithersburg, MD
- Dec 3, 2015 **Fall Technical Seminar—
"Concrete: A Granular Insight
into its Many Applications &
Chemical Formulations"**
Location: Concrete Protection &
Restoration
Baltimore, MD

UPCOMING NATIONAL EVENTS

- Oct 14-16, 2015 **ICRI 2015 FALL CONVENTION**
Location: Hilton Ft. Worth
Ft. Worth, TX
- Feb 1, 2016 **ICRI Kick-Off Party**
Location: In Conjunction with World
of Concrete
Las Vegas, NV
- March 16-18, 2016 **ICRI 2016 SPRING CONVENTION**
Location: San Juan, Puerto Rico
- Nov 9-11, 2016 **ICRI 2016 FALL CONVENTION**
Location: The Westin Cleveland
Hotel Downtown
Cleveland, OH



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November 5, 2015

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BALTIMORE WASHINGTON CHAPTER

Members by 10-29-15: \$50

Non-Members & Members After 10-29-15: \$60

4:30 pm Board Meeting
6:00 pm Social Hour
6:30 pm Dinner & Presentation

2015 Awards Dinner and Board Elections

**Please join us on Thursday, November 5, 2015 for our
11th Annual Outstanding Repair Projects Awards Program.**

Help us close the curtain and to celebrate a year of accomplishment when we honor our chosen contractors, engineers, consultants and materials suppliers for jobs well done.

There will be three awards and each recipient will have time to speak on his/her special project, challenges and what made the project a success. The winners will be allowed to present their project:

1st Place - 30 minutes; 2nd Place - 15 minutes; 3rd Place - 15 minutes.

Projects are currently being judged by a fine field of judges selected from our national pool of ICRI member companies. Judging is based on a number of criteria including, but not limited to: overall presentation of the project, innovative or difficult approach to making repairs, specialized materials or equipment



Don't Forget that Elections for 2016 Board of Directors take place at this meeting.

REGISTRATION DEADLINE IS **October 29, 2015 NO-SHOWS WILL BE BILLED**

Please email (sbentz@desman.com) or print this page and fax to **Shannon Bentz**, Secretary, at 703-893-4067 no later than Oct. 29, 2015. Checks to ICRI BWC may be turned in at the meeting or mailed with your form to:

Shannon Bentz, Secretary
ICRI BW Chapter
c/o Desman Associates
8000 Westpark Drive., Suite 610
McLean, VA 22102

**You may also register and
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www.ICRIBWChapter.org

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Attendee Names: _____
Attendee's Company: _____

HABITAT FOR HUMANITY

Garrett County Habitat for Humanity August 15, 2015



For the 7th year in a row, on Thursday and Friday, August 13th & 14th, members of ICRI Baltimore Washington Chapter travelled to Garrett County, MD to assist Habitat for Humanity on continuing the construction of two new houses in the Hopeland Village.

Habitat for Humanity is a nonprofit, Christian ministry that seeks to eliminate poverty and homelessness. This is accomplished through the efforts of volunteers working alongside the prospective Habitat homeowners to build the Habitat homes. In addition to volunteer labor, donations of money and materials are also accepted and appreciated to help build the homes. Since its establishment in 1983, the Garrett County Habitat for Humanity has built 75 houses.

This year, we worked on two houses installing the front and back porches and a new roof. We were surprised on Friday when the owners of the houses came out and worked side-by-side with

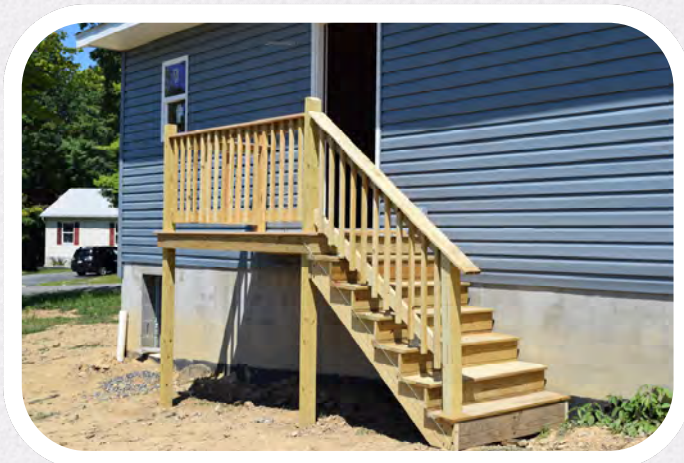
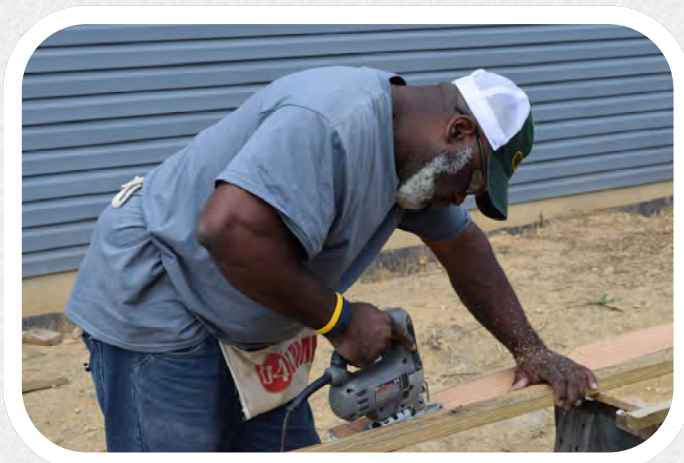
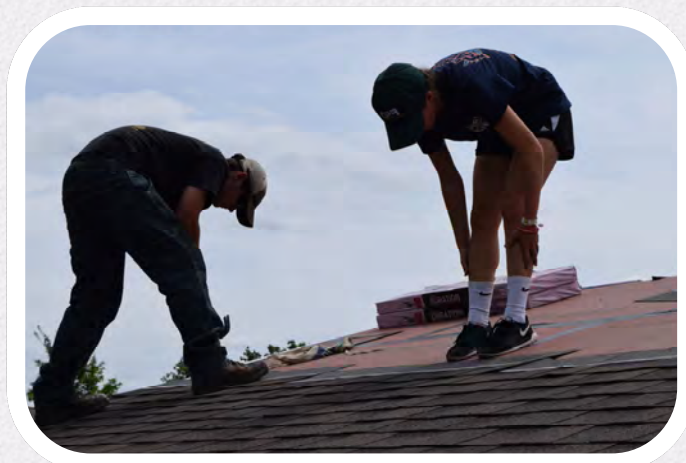
us. They are looking forward to move-in in the fall and it was rewarding to see the smiles on their face in appreciation of our efforts. Our crew not only had beautiful weather to facilitate our work, but we were also thrilled to learn that the houses we worked on last year are already being occupied by two beautiful families.

This annual event is for a very worthy cause and was a successful effort by the group of ICRI volunteers that participated. It provided our members with an opportunity to give back to our communities by helping those that are less fortunate. The Industry Outreach Committee of the ICRI BW Chapter is extremely thankful to all the volunteers that donated their time, skills and efforts to the Garrett County Habitat for Humanity organization. Be sure to join us in Garrett County next year, or look for the announcements for another Habitat trip here in Montgomery County.



[See More Pictures page 7](#)

HABITAT FOR HUMANITY



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See More Pictures page 8

HABITAT FOR HUMANITY

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SEPTEMBER MEETING WRITE-UP

ICRI-Baltimore Washington Chapter Members Learn About Concrete Repair Work at the Empire State Building



On September 10, 2015, the ICRI BW Chapter held our dinner meeting at a new location. Thanks to Kevin Kline (Facilities Committee Chair) for making the arrangements for the chapter. McCormick and Schmicks in Tysons Corner was a great location for the meeting and will hopefully host future events.

Tom Ouska (Programs Committee Chair) arranged for our speaker of the night, Michael Mudrick of Koster American Corporation. Michael gave a technical presentation that outlined the work that he was involved with at The Empire State Building in New York City.

Michael reviewed the history of the building, the scope, challenges, and completion of work on the 3 subterranean levels of the North and East Walls of The Empire State Building. The project involved curtain wall grouting and negative side waterproofing repair to the masonry. There were numerous challenges that go along with a project of that magnitude and Michael did an excellent job explaining how each were met and addressed. Thanks to Michael for making the trip from Philadelphia to share his unique work experience!

The social hour prior to dinner was a huge hit as always. It provided a great opportunity to network and chat about



the industry. See your calendar of events for more info on upcoming meetings and other events with the chapter.



SEPTEMBER MEETING WRITE-UP

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SEPTEMBER MEETING WRITE-UP



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TOPIC CHOSEN FOR 2015 FALL TECHNICAL SEMINAR

Concrete – A Granular Insight into Its Many Applications and Chemical Formulations is the focus of this year's Technical Seminar.

- * Maryland Ready Mix Concrete Association is co-sponsoring this highly anticipated event.
- * It will be held on December 3, 2015 at Concrete Protection & Restoration in Baltimore, MD
- * So hold the date as additional information and registration will be going on the website.



BUILDING TRUST



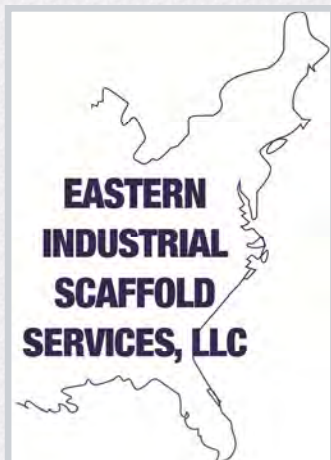
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Fire Protection and Prevention

By Charles J. Brienza, CHST, Safety Director, Concrete Protection and Restoration, Inc.

The National Fire Protection Association (NFPA) has designated October as National Fire Prevention Month. All month long fire departments will visit schools and neighborhoods across the country to educate the public how to prevent fires and prepare to respond should a fire occur. This is an excellent time to refresh your workforce's knowledge of fire prevention and protection. A contractor can split their efforts into two categories; prevention and protection. Prevention is the process by which a contractor institutes policies that limit the introduction of ignition and fuel sources into the workplace. Protection is a company's response strategy to be implemented should a fire occur.

To truly understand fire prevention, you must first understand the three factors of a fire which are normally represented by the fire triangle (see Figure 1). A fire needs all three components to ignite; heat, fuel and oxygen. By removing any one of the components, a fire cannot ignite. Since oxygen is the one component that normally can't be removed from the workplace we will focus on removing heat and fuel. For the purpose of this article, fuel will be categorized as three types; organic, chemical and gaseous. Some organic fuel types are wood, paper, and/or cloth. They can be found in new materials or debris created by removing existing building components. Some chemical fuels found on a project are paints, primers, solvents, engine fuels and lubricants. Flammable gasses common on a construction project are propane, oxygen, and acetylene. Ideally, non-flammable materials would be substituted instead of flammable materials. However, that is not always technologically possible or economically feasible. In lieu of substitution, inventory control, housekeeping and separation are methods used to limit fuel sources in the work place. Inventory control is accomplished by limiting the amount of fuels stored on site. A contractor should have no more materials than required in the work area for the day's work. Excess materials should be stored in a designated area that has easy access to the work area but far enough away to keep the work area open. When performing demolition of combustible materials, the debris should be removed throughout the shift to limit the amount of rubbish which could ignite.

see Fire page 15

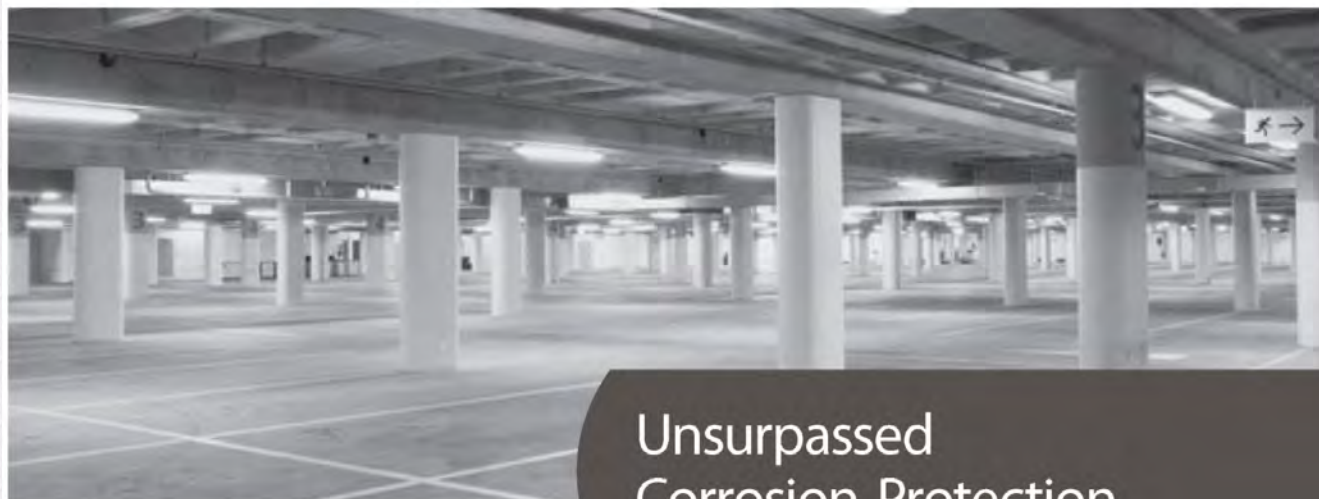


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Fire continued from page 14

OSHA has a number of regulations governing the storage and use of flammable chemicals and gasses. Flammable chemicals and gasses cannot be stored haphazardly around a project. Chemicals in quantities in excess of 25 gallons (total; not per container) are required to be stored in a flammable chemical storage cabinet listed with Underwriters Laboratories (UL) or in a specifically designed storage room. Compressed gasses cannot be stored inside any building and must be stored with the caps on (if applicable) and fixed in the upright position. Only the compressed gas cylinders required for immediate work can be in the work area and the must be transported on a cart designed to do so. All flammable chemicals and compressed gasses must be labeled. There are four different labeling protocols for flammables. The Globally Harmonized System (GHS) pictogram (see Figure 2), The Department of Transportation placard (see Figure 3), the National Fire Protection Agency (NFPA) diamond (See Figure 4) and the Hazardous Material Identification System (HMIS) (See Figure 5). The numbering systems that the three organizations use to identify and classify flammables DO NOT coincide with each other. While industry is navigating through the transition into the GHS the end user of flammable chemicals will continue to see all four of the labels. Of the four labeling systems, the GHS and HMIS were designed for employee identification of hazardous chemicals.

Removing heat (the second component of the fire triangle) can be almost as difficult as removing oxygen. Many of the processes performed on a construction site create or utilize heat (Hot Work); hot applied waterproofing, welding and cutting, chipping concrete, temporary heaters, generators, buggies, pressure washers, etc. all create heat, fire, or sparks. Completely removing these processes and equipment is impossible therefore isolation is the method of removal from the triangle. When welding or cutting an employee must be aware of where the sparks created are landing. When welding, cutting or performing demolition in an area, the application or use of flammable chemicals must be prohibited. Equipment utilizing engines which exhaust heat must be positioned in a manner which directs the heat (and fumes) to a safe location. OSHA regulation CFR1926.152(f)(3) states "Flammable liquids may be used only where there are no open flames or other sources of ignition within 50 feet of the operation, unless conditions warrant greater clearance".

see Fire page 16

SAFETY COLUMN

Fire continued from page 15

Whenever hot work is performed on a jobsite it must be coordinated administratively by a "Hot Work Permit". A hot work permit is essentially a checklist and notification of process very similar to a confined space entry permit. It ensures that all of the necessary safety equipment, training and personnel are in place before hot work begins, for the duration of the operation and, if needed, a fire watch after the operation is finished. It should be filled out by the employee(s) performing the hot work. The supervisor then reviews the permit and either approves or denies the permit based on whether or not the process is safe.

Fire protection is defined as "the practice of mitigating the unwanted effects of a fire". Once all necessary methods of prevention have been instituted, contractors must prepare a response to fire should one occur. This is accomplished by the use of suppressive systems or devices, administrative controls and employee training. Suppressive systems and devices include fire extinguishers, sprinkler systems, stand pipes and fire department connections to a structure's intrinsic fire suppression system.

Fire extinguishers are required on every jobsite regardless of the scope of work or the types of materials that are used. It is a common misconception that a fire extinguisher is not required if flammable chemicals are not being used or stored but that is absolutely false. Some of OSHA's location requirements for fire extinguishers are:

- A fire extinguisher rated not less than 2A shall be provided for each 3000 square feet of protected area. Travel distance from any point to a fire extinguisher shall not exceed 100 feet.
- In multi story buildings a minimum of one fire extinguisher shall be provided for each floor, located adjacent to the stairway.
- A fire extinguisher rated not less than 10B shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on a jobsite. This does not apply to integral fuel tanks on motor vehicles.
- At least one portable fire extinguisher rated not less than 20B shall be see Fire page 17



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Fire continued from page 16

located not less than 25 feet, nor more than 75 feet from any flammable storage area located outside.

Additionally, fire extinguishers should always be “conspicuously located”, inspected daily for charge (see Figure 6), inspected periodically (monthly) for condition, and recertified annually by a qualified technician.

If a building on which a contractor is working is equipped with a sprinkler system, all efforts should be made to keep the sprinkler system active while work is being performed. Sprinkler heads that are covered to prevent damage or inadvertent contact by equipment are ineffective for fire suppression. If storing materials under sprinklers, a minimum of 18 inches of clearance must be maintained for sprinklers to disperse water properly. Buildings with sprinkler systems commonly have fire department connections outside so the fire department can “charge” the system when fighting the fire. Access to the connection must be maintained. If a fence is erected around the jobsite for security or other reasons, the connection must be maintained and signage must direct the fire department to its location. The same access rules apply to fire hydrants.

As with all safety policies, procedures and protocols, employees must be trained to understand and follow them. Recognize the hazards associated with the work and necessary response efforts to a fire. Employees must be trained annually in how to use a fire extinguisher. National Fire Prevention Month is as good a time as any to have a retraining. This can be accomplished very simply by conducting a “tool box talk” to review “P-A-S-S”. The acronym which stands for:

- **Pull** – Pull the pin
- **Aim** – Aim the extinguisher at the base of the fire standing 8 to 12 feet away
- **Squeeze** – Squeeze the handle
- **Sweep** – Sweep the suppressant back and forth slowly approaching the fire until the entire supply suppressant is exhausted.

Once a fire extinguisher is used it must be removed from site and recharged by a qualified technician – regardless of what the gauge reads. There is a seal in the neck of the extinguisher bottle that is breached upon use and will not reseal unless fully charged. If an extinguisher is only partially discharged, that seal will continue to leach propellant until it is empty.

The final consideration in a fire protection plan is egress. This not only applies to employees but also to building occupants. A restoration contractor continually works in buildings that are occupied. If the work site infringes upon emergency exits there are two options from which to choose. The exit either remains open with a minimum 36 inch wide walkway allowing occupants and employees to evacuate or; the exit must be relocated with appropriate notice to the occupants, and illuminated signage directing occupants to the emergency exit. Notification to occupants and adding additional signage for rerouting emergency routes is not typically the responsibility of the contractor (check your contract), however communication from the contractor to the building manager of their intent to block or capture emergency exits is. For employees, there should be a clear understanding of the alarm system notifying employees to evacuate, evacuation procedures, the rally point where employees gather for a head count, and notification of emergency response and the building occupants.

In conclusion, fire protection and prevention is a discipline which transcends all industries and construction contractors. Every contractor is required to have a fire protection and prevention plan. The main parts of the plan should cover storage, use and removal of flammable and combustible materials, labeling containers, fire suppressive devices, employee training and administration of the plan. Given the lives and dollars on the line, there is no better application of the axiom coined by Benjamin Franklin, who founded the nation’s first fire department in 1736, “an ounce of prevention is worth a pound of cure”.

SAFETY COLUMN

Figures 1 through 6

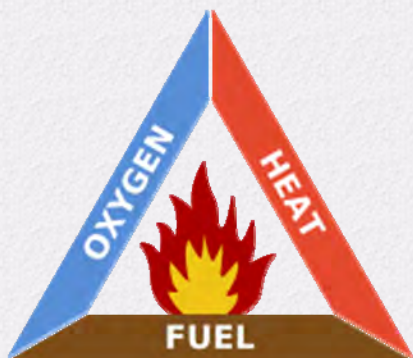


Figure 1



Figure 2



Figure 3

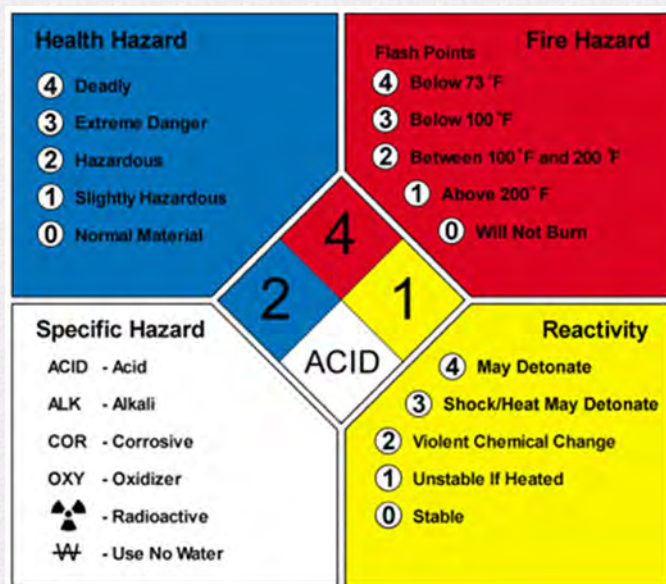


Figure 4



Figure 6

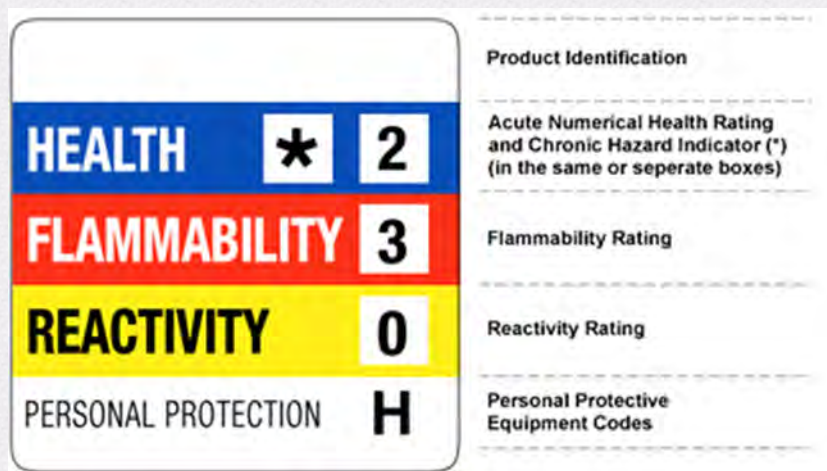


Figure 5

An Ounce of Prevention Is Worth a Pound of Cure: Have Your Subcontract Reviewed Before You Sign It

by Kenneth K. Sorteberg, Esquire

Often my subcontractor clients come to me for advice regarding disputes they have with general contractors. Just as often, I hold my head in my hands and think to myself, "If only my client had come to me **before** he or she signed this one-sided subcontract."

General contractors typically request that their subcontractors sign customized, onerous, one-sided subcontracts. My advice to subcontractors is first, tell the general contractor you would like to use the standard AIA A401-2007 subcontract form, which is very fair to subcontractors. If the general contractor balks at using this AIA subcontract form, then the next step is to review and modify the general contractor's customized form. I will discuss a few of the possible modifications below.

- Strike out the "pay if paid" clause, which basically says the subcontractor will not get paid unless the general contractor gets paid by the Owner.
- State that you have the right to stop work if you have not been paid within 45 days after submitting your invoice.
- Modify the final payment clause to state that final payment and retainage will be paid to you within 45 days after your work is completed.
- State that the schedule and any updates must be approved by you.
- Modify the "no-damages-for-delay" clause so that you can get paid for your extended equipment costs and extended general conditions costs.
- Limit your exposure to delay and liquidated damages to, say, \$10,000.
- Strike out the attorneys' fees clause, or state that you will not be liable for any attorneys' fees incurred by the general contractor or by any others.

Please feel free to contact Ken Sorteberg at sorteberg@constructionlaw.com with any questions or suggestions for future Legal Columns. Mr. Sorteberg is a civil engineer and an attorney (licensed in MD and DC) who focuses his practice on construction law.

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