

Fall(out) Protection:

Safeguarding Workers and Your Reputation

Innovative Safety Management: A Call to Action for Young Contractors

Sharing the "Why" of Safety

Employer Defenses to OSHA Citations

Risk Management: What Is Your Plan?

Moving Violations—2014







Arm your crew with the latest INSPECTION MOBILE APP



Features include



Custom checklists, Custom inspection reports, Photos from roof to office, On-site emailed reports, Photo upload to checklist, Record existing roof composition after investigation, Standardize the inspection process, Reports from roof to building file, Save time generating inspection reports and much more!





August 2014

Contents

Columns

President's Message: Busy and Ever Mindful
MRCA News
Industry News
The YCC Front: Innovative Safety Management: A Call to Action for Young Contractors
T&R Update: Engineering Note to Building Owners: Wind Uplift Load Patterns on Steel Deck Roof
Gary's Corner: Moving Violations—2014

Features

Employer Defenses to OSHA Citations	10
Employer Defenses to OSHA Citations	10
Sharing the "Why" of Safety	12
Risk Management: What Is Your Plan?	14

Ad Index

Dataforma
Malarkey Roofing Products
McElroy Metal
On Center
Superior
Advanced Architectural Sheet Metal & Supply
Johns Manville
Tremco



MRCA Leadership Directory

Officers/Executive Committee President Steve Little

KPost Company steve.little@kpostcompany.com

First Vice President Larry Marshall

L. Marshall Roofing, Inc. lpmarshall@Imarshallroofing.com

Vice President/Treasurer **Bob Schenkel**

CL Schust Company rschenkel@clschust.com

Secretary Mark Langer

Langer Roofing and Sheet Metal mlanger@langer-roofing.com

Chairman of the Board

Michael A. Miller Henry C. Smither Roofing Co., Inc. mmiller@smitherroofing.com

Directors Randy R. Adams T&R Chair

R. Adams Roofing Co., Inc. randy_a@radamsroofing.com

E.D. Chase Inc. tbuss@edchase.com

Phil Diederich

Waukegan Roofing Co., Inc. pdiederich@waukeganroofing.com

Scott Erickson Weathercraft Co. of North Platte scott@roofwcohd.com

Kevin Gwaltney

YCC Chair Diamond Roofing kevin@diamond-roofing.com

Mark Gwaltney **Business Management Chair**

Diamond-Everley Roofing Contractors mark@diamondeverley.com

Fred Haines

Roofmasters Roofing & Sheet Metal fhaines@roofmasters-rfg.com

Jim Huntington Membership Chair

AAA Roofing Co., Inc. jrh@aaaroofingcompany.com

KPost Company Kelly.lea@kpostcompany.com

Adam Paris

Tecta America Kentucky aparis@zeroroofing.com

Bill Seibert

Steep Slope Chair Fisher Roofing of Kearney Bill@callfisher.com

Greg Sprague CERTA Chair

Sprague Roofing Co. gmsprague@spragueroofing.com

Andy Wray Operations & Safety Chair Wray Roofing, Inc. andyw@wrayroofing.com

Advisor Rene Dupuis, PhD PE

Structural Research, Inc. rdupuis@sri-engineering.com

Legal Counsel Gary Auman gwa@dmfdayton.com

Staff Louise Ristau, CAE

Executive Director Iristau@mrca.org

Liz Giannini **Senior Operations Manager**

Peggy Doherty Membership Manager pdoherty@mrca.org

Julie Ichiba Sales Manager jichiba@mrca.org

Jane Martinsons

jmartinsons@mrca.org

Miku Ishii Kinnear **Graphic Designer**

mikinnear@connect2amc.com

MRCA Headquarters

8735 W. Higgins Rd., Suite 300 | Chicago, IL 60631 Phone: 800.497.6722 | Fax: 847.375.6473 www.mrca.org

Disclaimer: The opinions and positions stated in articles published herein are those of the authors and not, by the fact of publication, necessarily those of MRCA. MRCA does not endorse roofing products or systems and shall not be deemed by anything herein to have recommended the use or non-use of any particular roofing system.









Busy and Ever Mindful

Steve Little, MRCA President

This summer has been a joyous time for the roofing industry, as all of us are busy working through the backlog of projects from the winter months and plowing through our traditional summer work.

Despite the proliferation of work, we continue to face serious challenges in our industry. When I attended the Western States Roofing Contractors Association conference in June, I heard fellow contractors and manufacturers outside the Midwest share the same concerns, including that trucking and ISO shortages are delaying delivery times by 2–3 weeks compared with last summer. Manufacturers and distributors are collaborating to find solutions to these two issues, but for now, contractors must do a better job educating their clients about potential delays.

Moreover, finding good people continues be troublesome, with general contractors and other subcontractor trades seemingly on a full-court press to solicit our industry's employees. This will continue to impact the roofing industry's workforce-development problem for the foreseeable future.

But there is good news: 50-plus MRCA board and committee members met for our summer meeting in late June. I'm pleased to report that planning for the 2014 MRCA Annual Conference on December 10–12 in Grapevine, TX, is ahead of schedule. More industry suppliers and manufacturers already have signed up for this conference than any other in the past 5 years.

I need to apologize that in the past, we did not do our job of defining the importance of the content and hours of education developed for our conferences. This year, we will feature "learning labs" on safety plans, growing your service department, and foreman and superintendent project management. In addition, our Young Contractors Council (YCC) will be holding a 90-minute roundtable on sharing best business practices in safety, sales, workforce development, climbing the ladder in a corporate environment, immigration, and technology. Dr. Rene Dupuis will lead a discussion reviewing the 65 years of MRCA Technical and Research Committee accomplishments that have greatly helped both MRCA members and all roofing contractors. MRCA also will launch its first service project, for which our YCC will lead us in partnering with Rebuilding Together* Greater Dallas (visit www.rebuildingdallas.org) on Wednesday, December 10. Be sure to check out the conference information (see page 6) and www. mrca.org for more details.

Finally, I'm pleased to announce that MRCA will recognize its past presidents and their spouses at this year's conference with a special display on the show floor and during various events. Just as the MRCA directors, committee members, and staff have worked tirelessly this year at exceeding our members' value expectations and making MRCA sustainable, these past presidents unselfishly volunteered their time and efforts to help make MRCA what it is today.

Be safe out there, because the combination of heavy workloads, warmer weather, and government regulators is a recipe for carelessness. Follow the MRCA, SHARP, and CERTA programs in your daily activities to help bring your men home safe every night.

Be safe and profitable!

Steve Little, president and head coach, KPost Company, Dallas, TX steve.little@kpostcompany.com

Innovating for the future...

605_&

RCAT's 39th ANNUAL CONFERENCE & TRADE SHOW Sept. 30th - Oct. 3rd, 2014





Highly Reflective SBS Multi-Ply Systems

Highly reflective cap sheets meet modern design requirements, while the SBS multi-ply systems stand up to the stresses of high capacity buildings with redundancy of layers that expand and contract to the needs of the building.







For more information on Malarkey systems visit our website at: WWW.MALARKEYROOFING.COM

Welcome, New Members!

Associate Members

ABC Supply, Wichita, KS
CSL Materials LLC, Frisco, TX
Hailwatch, Palm Desert, CA
MGM Sales LLC, Trophy Club, TX
Roof Depot, Des Moines, IA

Contractor Members

5 Star Roofing, Wellsville, KS

Faith Roofing and Sheet Metal LLC, Indianapolis, IN

Intrepid Roof Systems, Austin, TX

Mama's Pryde Painting and Restoration Services LLC, Lake Saint Louis, MO

Meade Construction, Inc., Lexington, OH

Schena Roofing & Sheet Metal Co., Inc, Chesterfield, MI

Sterling Roof Systems, Inc., Garland, TX

Structure Tec Construction Services Group, Kalamazoo, MI

WCR Construction LLC, Burnet, TX

MRCA News

Board Nominations

The MRCA Nominating Committee is seeking candidates to serve on the MRCA Board of Directors. Interested contractor members should submit their applications to Steve Little at steve.little@kpostcompany.com by October 1 for the committee to review. The Nominating Committee then will present the slate of candidates to be elected by the membership December 11 at the Annual Membership Meeting, held during the MRCA 65th Annual Conference. Download an application at www.mrca.org.

Save the Date for Conference!



The MRCA 65th Annual Conference is a premier industry event at the beautiful and festive Gaylord Texan Convention Center in Grapevine, TX, located right between Dallas and Fort Worth. This ideal location allows roofing professionals, manufacturers, and suppliers the opportunity to connect faceto-face with industry leaders.

This year's conference offers outstanding educational sessions that will help you stay up-to-date on the latest safety and code regulations. Come network, strengthen your business, and socialize with your industry peers at special events planned throughout the conference. Save the date, and plan to bring your whole crew to the MRCA 65th Annual Conference, "Connecting Opportunity!"

Don't miss out on

- MRCA's Technical & Research Committee presentation, "Through the Decades: Celebrating 65 Years of T&R Findings"
- the Fifth Annual Presidents' Forum, featuring industry leaders discussing important issues impacting the roofing industry
- a show floor full of the industry's most prominent suppliers and manufacturers
- social and educational opportunities for young contractors
- · networking, learning, and interacting with industry peers
- · and much more!

Book your hotel reservations now to ensure special conference rates by calling 866.782.7897 or visiting www.mrca.org.

Please continue to support the MRCA Associate Members listed on the website and encourage all of your vendors to join.

Creative Ideas for Your Next Home Show



Ellsworth

Heidi J. Ellsworth, executive vice-president of marketing at Eagleview Technologies, Inc., says that marketing through community events has been around for a very long time. "There are some tried and true ways to working these events, but there also are some new ideas that just might make a difference for future lead generation," she states. "Getting in front of potential customers and sharing a story of integrity, accuracy, and dependability is still key to gaining leads and winning jobs, but how does a contractor get the attention of home and business owners long enough to deliver that message?" Ellsworth provides roofing contractors some valuable tips for taking age-old marketing opportunities—such as fairs, open houses, and community events—and fine tuning them with new-age ideas. Visit www.mcra.org to read more.

OSHA's Revised Hazard Communication Standard

The Occupational Safety and Health Administration (OSHA) has revised the Hazard Communication Standard (HCS) to align with the provisions of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The primary benefit of the revised HCS is that it increases the quality and consistency of information provided to workers, employers, and chemical users by adopting a standardized approach to hazard classification, labels, and safety data. Major elements include

- hazard classification. The HCS will evolve from a
 performance-oriented standard with substantial discretion
 in how the hazard of a substance is classified to a specific
 and detailed hazard classification approach. The new HCS
 provides specific criteria for the classification of health and
 physical hazards as well as mixtures.
- labels. Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, hazard statement, and precautionary statements. Currently, manufacturers are required to provide only "appropriate hazard warnings," which traditionally has resulted in a variety of label formats and information quality.
- **SDSs** that are in a specified 16-section format.
- information and training. As of December 1, 2013, the
 HCS required that workers be trained in the elements of the
 standard to facilitate recognition and understanding of the
 new labels and safety data sheets.

The regulation is being implemented over 4 years. By June 1,

Health Hazard Flame **Exclamation Mark** Irritant (skin and eye) Carcinogen Flammables Pyrophorics Mutagenicity Skin Sensitizer Reproductive Toxicity Self-Heating · Acute Toxicity (harmful) Respiratory Sensitizer • Emits Flammable Gas Narcotic Effects Target Organ Toxicity Self-Reactives Respiratory Tract Aspiration Toxicity Organic Peroxides Irritant Hazardous to Ozone Layer (Non-Mandatory) Gas Cylinder Corrosion **Exploding Bomb** Gases Under Pressure Skin Corrosion/ Explosives Burns Self-Reactives • Eye Damage Organic Peroxides Corrosive to Metals Flame Over Circle Environment Skull and Crossbones (Non-Mandatory) Oxidizers Aquatic Toxicity Acute Toxicity (fatal or toxic)

2015, manufacturers must comply with all provisions of the final rule, the only exception being that distributers may ship chemicals previously labeled with old labels until December 1, 2015. The final milestone date is June 2016, by which time manufacturers must update alternative workplace labeling and hazard communication programs as necessary and provide additional employee training for newly identified physical or health hazards.

According to Kelly Sandin, manager, product stewardship Americas at Johns Manville, Denver, CO, the changes will positively affect roofing contractors in two main ways. First, pictograms help quickly convey physical hazards to users, including those not proficient in the English language. Second, having actionable and standardized information on storage and handling requirements allows for easier and more consistent employee training—and for a safer working environment.



Innovative Safety Management: A Call to Action for Young Contractors

Monica Cameron

As a member of a company that prides itself on having a great safety program, and as the designated risk management representative for our company, it is hard to admit (especially to my peers) that recently our company's crisis management response fell short when confronted with a disastrous highwind incident that left the roofing membrane and insulation on a customer's building peeled up like the lid on a can of sardines.

Soon after the wind storm hit, the customer called saying, "With a disaster like this, I knew I needed to call the best roofers I know, and that is why I'm calling you." From a production standpoint, that is exactly what he got: timely and effective emergency repairs. However, from a safety perspective, we truly got caught with our hand in the cookie jar. Below is a picture that the *Salina Journal* printed on its front page the following morning.



Photo credit Salina Journal

If it is not completely obvious from that picture, our field employees were not wearing their personal fall arrest equipment. When investigating this situation further, managers indicated that a safety monitoring system was in place. However, it doesn't appear to be in full effect in this picture nor is it being utilized in conjunction with a warning line approach.

Fortunately, the media, and more so the Occupational Safety and Health Administration, didn't pick up on our shortcoming, but this certainly has been a hot topic within our organization because minor incidents like this quickly can turn into major catastrophes, generating negative publicity that can be hard to

overcome. The lack of adequate and appropriate fall prevention has led us, and hopefully all *Midwest Roofer* readers, to recognize an opportunity to learn a valuable lesson.

Most of the time, we are involved in projects that are wellorganized, with site-specific safety protocols and guardrails as the standard first line of defense. But when it comes time to promptly react in an emergent situation, everything, including all of the training and toolbox talks specifically relating to fall hazards, seems to be forgotten. Although it would be easy to solely blame the field for this incident, the real fault is on all of us as contractors. In my opinion, safety is a bottom-up process and doesn't happen in a management office. We should provide this content in a platform that makes the information readily available to our field. Even with the outstanding resources that MRCA has available through their SHARP program and great publications such as the National Roofing Contractors Association's Crisis Management: The Time is Now, which is designed to give the basics for developing a crisis management plan that is tailored to your company's own unique situation, we as an industry fall short by not proactively making this information available in a format that is user-friendly for our field employees.

It is my belief that the strength of our association always has been our ability to serve as the contractor's advocate, identify the apparent gaps within our industry, and provide a system or solution to fill those gaps. As I recall, this was the very premise behind MRCA's Certified Roofing Torch Applicator (CERTA) program.

In my opinion, we have a real opportunity as young contractors to follow in the footsteps of our "forefathers" and create an innovative, safely delivered platform, such as a smart phone application. It is better equipped to fill this communication gap—not only for crisis management, but for safety and risk management in general. The path already has been paved and the information is available; all we need to do is utilize technology as the solution to better communicate with our workforce. In Young Contractors Council conversations, we always are talking about ways to make roofing "sexy," and we are frustrated with our inability to recruit and engage the next generation. This a perfect starting point for our council to get our feet wet while further enhancing the SHARP safety programming.

Monica Cameron is a manager at Diamond Roofing in Manhattan, KS, and is a member of the MRCA's Young Contractors Council. She can be reached at monica@diamond-roofing.com.

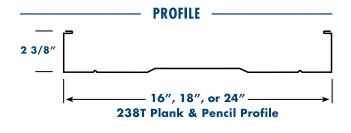
McElroy Metal's **238** T is setting the ... New Standard of Performance!





238T

- Two Patent Pending Frameless Recover Systems
- Job Site Production Enables Eave to Ridge Panels
 - Extremely High Wind Uplift Capacity Without Additional Edge Zone or Corner Framing
 - 24" Wide Panels Reduce Installation Labor
 - Individual Panel Replaceability
 - Capable of 6' Spans













Join Our Talent Network



Employer Defenses to OSHA Citations

Matt McCreery

An informal conference allows contractors the opportunity to meet with OSHA's area director and, if requested, the inspector in an informal setting to discuss the elements of a proposed citation. In this setting, contractors can present their case for reduced severity, reduced penalties, and sometimes outright deletion of cited items.

As important as an informal conference can be for employers dealing with Occupational Health and Safety Administration (OSHA) citations, setting your company up with affirmative defense documentation can be just as helpful, if not more so.

Although an OSHA informal conference is a good place to state your case, with a little preplanning and proper documentation, you often can get a citation removed entirely based on the defenses outlined within this article. The following is a breakdown of legally recognized defenses that business owners and safety directors should consider and be aware of when conducting training and preplanning for specific jobs.

The "Employee Misconduct" Defense

Employee misconduct is the most common, and likely most important, defense option an employer may have at his or her disposal. This option also has been referred to as the isolated occurrence or incident defense, and it's based on the concept that employers should not be punished for the activities of their employees when said employees have been given all opportunities and resources to comply with the law.

To establish this defense, an employer must prove and demonstrate that the following criteria have been met:

- The violation charged resulted exclusively from the employee's conduct.
- The violation was not participated in, observed by, or performed with the knowledge or consent of any supervisory personnel. (This includes your designated competent person.)
- The employee's conduct went against a well-established company policy or work rule that was in effect at the time of citation.

Necessary documents to support this defense would include written policies and programs. This could include the company's safety manual, employee handbook, or site-specific documentation with which you can prove that the employee identified as the offender had received the information.

Documented training on work rules, policies, and programs also must be available and reflect that the offending employee attended the training sessions. This training must be in a language the employee can understand, so it's often a good idea to provide a translator for all non-English personnel and

document that the training was translated on the corresponding sign-in sheet.

A company also must establish that these written rules and policies are enforced. Typically, this can be demonstrated by site inspections conducted on a frequent basis as well as any and all disciplinary action for unsafe acts or activities that has been taken in the past against any current or former employee.

The "Impossibility of Compliance" Defense

Another defense that has been brought forth by employers with some level of success is the "impossibility of compliance" defense. This argument is based on the assumption that compliance with the standard was made impossible because of the nature of the specific work.

An example of this is the handrail requirement for stair systems that have four or more risers: In one circumstance, OSHA attempted to issue a citation to a contractor during the drywall stage of construction. However, for the trade personnel to complete their work, the temporary handrail that had been installed was removed. This, in turn, was explained to the OSHA area director during the informal process and the citation was deleted as a result.

For the roofing trade, this defense may be used in a situation in which the roofers are working on a gypsum deck, domed roof. This scenario would not allow for conventional means of fall protection, because of the gypsum strength and the anchorage available to roofing contractors. Therefore, a site-specific safety plan outlining the alternative means of fall protection could be created, trained on, and implemented to ensure a defendable position with OSHA. Remember, to use this defense, you must be able to prove that compliance with the standard was functionally impossible or would preclude performance of required work, and that an alternative means of employee protection was either unavailable or in use. Having a site-specific safety plan outlining alternative measures always is recommended for this defense.

The "Employer Had No Exposure or Equipment Was Not In Use" Defense

The final defense outlined is one in which the cited equipment was not in use or there were no demonstrable hazards to the personnel for the proposed violation. One example of the equipment defense could be a situation in which a ladder with damage had been taken out of service and marked as such.

OSHA shouldn't cite for the ladder unless it was observed in use. Also, if an inoperable tool was observed during the OSHA walkthrough, and it was in the process of being repaired, this, too, would not be a citable condition per the defenses allowed.



One of the greatest tools safety professionals and company management may have is proving their employees were not exposed to a hazard based on the citation issued. OSHA must prove that the violation is a direct and immediate danger to personnel, and the burden of proof rests solely on them. If OSHA cannot prove a hazard exists, it is likely the citation can be vacated through the informal conference or contest stage.

The items above are just a snapshot of affirmative employer defenses against OSHA citations. The realm of OSHA citations can be challenging and frustrating if you are unprepared or lacking certain documentation.

For more information, contact Safety Resources Inc. at 800.641.5990 or e-mail Matt McCreery at mmccreery@safetyresources.com.



Sharing the "Why" of Safety

Brian Krimpelbein

You have probably been hearing the phrase "start with why" a lot lately in the business world. It comes from a book and TED Talk of the same name by author and motivational speaker Simon O. Sinek. The idea is that your organization can't reach its full potential unless everyone understands the reasons behind what you do—and buys into them.

Safety is a huge factor in roofing. Your employees know they need to work safely in this field, but do they know the why?

The why of safety revealed itself in a sobering talk I had recently with a claimant who fell 30 feet through a skylight. The claimant was the foreman on the job—the guy who was responsible for making the worksite safe. This fall has turned into a million-dollar issue, and the future of the company and all of its employees is in jeopardy—all because \$50 worth of fall-prevention equipment wasn't set up.

In roofing, the why of safety is at the heart of your profitability.

What Your People Need to Know About Safety

Making sure your people understand the why of safety starts with transparency and speaking a common language. Here are three things that everyone in your organization should understand:

1. Experience Modification

Everyone at your firm should know what a workers' compensation Experience Modification Rate (EMR) is. They need to understand how it affects the profitability and insurability of your organization. For laypeople, explain that it is a measure of your losses, which indicates claims activity. The lower the EMR, the better. A low EMR demonstrates that you have few losses, which implies safe behavior. Safe behavior makes your organization a more attractive risk to general contractors, building owners, and insurance companies.

When your employees understand what the EMR means to them, they will help protect it. The number-one person to turn in someone for committing workers' compensation fraud is a coworker who understands how this bad actor is affecting their company.

2. Bid

Everyone at your firm should know what goes into a bid. It's pretty basic: material costs, labor costs, and profit. There's probably not a lot you can do to drop the material cost, so let's focus on labor costs and profit. What goes into labor? Wages, benefits, insurance, etc. If the job is going to sell for \$100,000 and your material costs are similar to your competition, where can you make the difference? If your insurance costs are high, there's a good chance your profits are low.

organization can't reach its full potential unless everyone understands the reasons behind what you do—and buys into them."

3. Pre-Loss and Post-Loss

Your people need to understand what happens before a claim and what happens after a claim. Before a claim, you work on best safety practices and lay out consequences for unsafe behavior. After a claim, you figure out what went wrong, amend your best practices if necessary, and execute the consequences.

It's very important to have a clear and consistent message pre- and post-loss. If you hire for safety, your people will get this really fast. When you lift the veil on these safety elements, there's greater alignment of your talent. They understand where you stand—and what your next safety steps should be—because you're working toward a shared goal: increased profitability.

Getting Personal About Safety

Each worker ultimately is responsible for his safe (and unsafe) behavior throughout the workday. Banners all over the place proclaiming "safety first" don't make anyone safer. In fact, they may cause some feelings of complacency.

Safety never should be a priority at your organization. Priorities change, but values never do. Safety should be a value, beyond compromise, and a matter of fact when it comes to how you do business.

Hire talented employees who value safety and your organization will benefit. That is how safety becomes everyone's M.O.

You can avoid filing another claim by hiring for the value of safety.

Safety as a Cornerstone of Your Organization

You want your organization to do more than survive. You want it to grow.

Growth depends on three equal cultural elements of your organization: safety, productivity, and quality. When you take away one of those elements, the best you can do (maybe) is survive.

- A culture that is productive and committed to quality cannot grow if it is unsafe.
- A culture that is safe and committed to quality cannot grow if it is not productive.

• A culture that is productive and safe cannot grow if quality is not a value.

Your success is in your control. Do your people share the values that are your ticket to success?

Safety programs can be frustrating for business leaders. You don't know when a safety program is working, but you sure as heck know when your program has failed. Share the why of safety with your employees and discover the financial benefits of leveraging this powerful value.

Brian Krimpelbein, associate vice president, HNI, New Berlin, WI, can be reached at 262.641.5845 or bkrimpelbein@hni.com.



Risk Management: What Is Your Plan?

Pete Paulsen

Risk management can be defined as the identification, assessment, and prioritization of risks, followed by the coordinated and economical application of resources to minimize, monitor, and control the probability or impact of unfortunate events. Risk management efforts also maximize the realization of opportunities.

Now that we have a basic understanding of the definition, let's ask ourselves, how do we manage risks? If we struggle to answer this question, it may be time to develop a risk management plan. Developing a risk management plan can provide a road map to manage the exposures we face in business.

Let's take a closer look at the five Ws (who, what, when, where, and why) of developing a risk management plan.

Who is involved in a risk management plan?

The stakeholders who oversee safety and business insurance decisions should be involved in the risk management plan. At a minimum, stakeholders should include leadership and staff from the organization purchasing business insurance, insurance agents/brokers, and insurance carrier representatives.

Each stakeholder has an interest in developing and executing an effective risk management plan. Leadership and staff from an organization want to ensure safety is a core value of their operation. Insurance agents/brokers want to transfer risk appropriately and manage exposures for their client. Insurance carriers want to insure an organization that has controls in place to manage and minimize their exposures.

An organization will gain greater control of their insurance costs when all stakeholders play their parts in a risk management plan.

What is in a risk management plan?

A risk management plan can include identification of insurable and uninsurable exposures to the business; objectives, including strategies to manage the identified exposures, and the assignment of a stakeholder or stakeholders to manage them; and target dates for completion of the agreed-upon objectives.

For example, stakeholders may agree that Department of Transportation (DOT) compliance is an exposure for an organization. In this example, our objective could be recognized as "managing DOT compliance." It is now the responsibility of all stakeholders to collaborate and discuss a strategy for managing the organization's DOT exposure. One strategy can include performing a biannual review of the organization's DOT compliance program.

Once the strategy is agreed upon, it is important to assign stakeholders as the owners responsible for completing this objective. In this case, the insurance agency or insurance carrier may have a trained DOT advisor on staff who can assist the organizational leadership responsible for safety and risk management.

Therefore, our assigned stakeholders could be an insurance carrier representative and an organization's safety leader. The resources provided by each stakeholder will vary between organizations; therefore, it is important that all stakeholders collaborate to identify what resources are available.

When do we implement the risk management plan?

The risk management plan is ready to go "live" once we've identified our objectives, developed strategies, and assigned a stakeholder to complete the objectives by an agreed-upon date.

Where is the risk management plan?

The risk management plan should be available to staff associated with the safety and business insurance of an organization. It's important that all parties have a thorough understanding of the objectives and functionality of the plan.

For example, an organization's leadership can communicate the risk management plan's status at weekly, monthly, or quarterly employee meetings. Insurance agents/brokers can schedule weekly, monthly, or quarterly reviews with their client and insurance carrier. A visible plan, reviewed on a consistent basis, will help ensure the success of an effective risk management plan.

Why should a business want to implement a risk management plan?

A risk management plan provides all stakeholders with direction to improve safety, identify and implement strategies designed to manage and minimize business exposures, and gain greater control over insurance costs. These are a few of the benefits that come from implementing a risk management plan. Each risk management plan should be viewed as a working document that will change over time. As business exposures change, so do the objectives outlined in a risk management plan.

In summary, implementing a risk management plan provides benefits to all stakeholders. Developing a good plan is not expensive and does not require a lot of time if coordinated correctly. A good risk management plan can improve your insurance profile; reduce business insurance costs; and, most importantly, possibly save lives.

Pete Paulsen, construction risk advisor, M3 Insurance, Green Bay, WI, can be reached at 800.272.2443 or Pete.Paulsen@m3ins.com.



We service what we sell. There is no middle man. We rebuild Kettles, Engines and every other piece of roofing equipment you can imagine.

Superior Equipment will continue to put the customer first in line when it comes to service.

SUPERIOR Equipment & Supply 4650 Mansfield Highway Forest Hill , Texas 76119

1-800-511-0561

817-534-1347

www.SuperiorRoofingEquipment.com



Engineering Note to Building Owners: Wind Uplift Load Patterns on Steel Roof Deck

Rene Dupuis, PhD PE

As a building owner, you are relying on your structural engineer of record to properly design your steel roof deck and supporting structure. He or she needs to be aware of the distinct differences in wind uplift load patterns for mechanically fastened singly-ply membrane.

If you are reroofing your existing building that has a steel roof deck, you need to get this note to a structural engineer to make sure the roof system you are intending to have installed does not load the deck in a manner not anticipated at the time of original construction.

The roofing contractor is responsible for means and methods. The roofing contractor also needs to inspect the deck for contaminants, dirt, debris, loose materials, and visible moisture. However, the roofing contractor is not qualified as a structural engineer or deck designer to check for adequate deck design and attachment.

Wind Loads

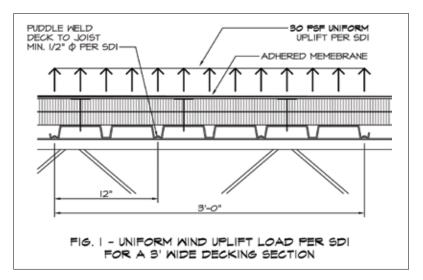
The building code specifies a design wind speed (such as 90 mph) that your building needs to meet. Wind loads apply uniform uplift loads to your roof deck. Corner loads are the highest, the roof perimeter sees the next highest level, and the central area of your roof sees the lowest. These design loads come from a code-stipulated reference book titled *Minimum Design Loads for Buildings and Other Structures, ASCE-7.*

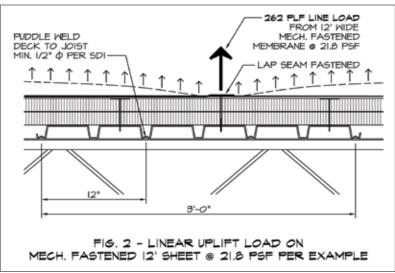
As an example, let's assume you have a 40-ft building with Exposure C in a 90 mph wind zone per the *ASCE-7*, 2005 edition. The maximum uniform design uplift load for local roof areas are as follows:

Corner—54.8 psf Perimeter—36.3 psf Main roof—21.8 psf

A note of interest for your structural engineer: prior to 2010, the Steel Deck Institute (SDI) design specified that the roof deck should withstand a gross uplift of 30 psf. As of 2010, the SDI modified this to say the deck shall be anchored to resist the required net uplift force, but not less than 30 psf.

In the example above, the building code uplift load needed at 90 mph in the corners and perimeters exceeds the SDI-specified 30 psf deck uplift capacity. Therefore, your engineer needs to design a corrective measure because the deck is overloaded in





uplift by 24.8 psf in the corners and 6.3 psf in the perimeter areas.

How Different Roof Systems Load Roof Decks in Wind

Classical roofs have the roof membrane adhered to the insulation board, which in turn is screw fastened to the steel deck as shown in **Figure 1**.

The structural engineer designs the deck span and thickness, weld size, and weld spacing. Deck panels are typically 3 ft wide and come in different profiles such as wide rib, narrow rib, or intermediate rib. The profile and deck pan determine the gravity load capacity. Regardless of gravity load, the SDI specifies a 30 psf gross uniform uplift capacity for wind. In this case we are dealing with uniform gravity loads (down) and

uniform wind loads (up).

A popular single-ply roof system used today is the mechanically fastened system. There is no attachment of the roof membrane to the roof insulation. Typically, the membrane is loosely laid and directly fastened to the deck with fasteners in the lap seam, as shown in **Figure 2**. The roof deck is no longer uniformly loaded in wind uplift, as SDI assumed.

Using the example design wind condition cited above, we see that a 12-ft wide single-ply membrane produces a line load in uplift along a separate profile of the deck as shown. The load is not uniformly loading the deck as shown in Figure 1.

Example of Total Deck Load Using a 6' Deck Span

If we assume a 6-ft deck span, the following total loads per 6-ft span occur:

Uniformly applied load at 21.8 psf—392 lbs Uniform allowable per SDI at 30 psf—540 lbs Line load from 12 ft wide sheet—1,572 lbs

You need your engineer to examine this load pattern and provide an adequate load path for wind uplift resistance because the line load is three times greater than the uniform load per SDI. Carefully check the line loads at the juncture of the last full width sheet near the perimeter, where it joins a half sheet.

Wind Load Ratings of Roof Systems

Roof system wind uplift resistance is determined by FM Global and has been for decades. If your building is insured by FM Global, you will need to follow their guidelines. All other building owners may or may not choose to follow the FM wind design protocol. It is a confusing protocol and does not directly relate to code specified design wind needs.

Roofing manufacturers only provide FM rated systems. Your engineer has to make the specific conversion of wind load paths occurring from mechanically fastened systems and the FM Global rating furnished by the roofing manufacturer.

After that exercise is completed, you may approve of the roof system to be installed by the contractor. Your engineer also has to check the wind load paths on the structural elements supporting the steel roof deck and attachment, among other design items. A factor of safety also needs to be considered.

Rene Dupuis, PhD PE, of SRI in Middleton, WI, can be reached at RDupuis@sri-engineering.com. Dupuis serves on MRCA's Technical and Research Committee.







Moving Violations—2014

Gary Auman, MRCA Legal Counsel

Moving violations—2014? You are probably saying to yourself, "Where is he going with this? Now he is going to tell us how to drive!" No, I am not going to tell you how to drive; as my wife will tell you, I have enough problems in that area myself. But, recognizing that I don't know everything about driving underscores the necessity for me to pay 100% attention to what I am doing when I am behind the wheel! Not 95% or 99%, but 100%. The Occupational Safety and Health Administration (OSHA) has announced that it will treat any employer who does not have a policy prohibiting texting while driving as being in violation of the general duty clause. Although the notice from OSHA did not include e-mailing while driving, I have to believe they will be looking for this to be prohibited also.

There is *no* way you or anyone else can pay 100% attention to what you are doing if you permit yourself to be distracted by your cell phone or smart phone. Of course, the best thing you can do is to turn off your phone completely when you are driving, but we all know that is not going to happen, so what is next best? Next best is to use your phone intelligently. This entails several things:

- When driving, use your phone only with Bluetooth or in the hands-free mode.
- Do not place calls while driving unless you can do so without taking your eyes from the road.
- Cease all cell phone use when in heavy traffic or bad weather.
- If you cannot place or answer a call hands free, pull over to answer or place the call.
- · Never write a text or e-mail while driving.
- Never read a text or e-mail while driving.

The preceding points are the minimum for safe cell phone usage while driving. In addition, employees should never use a cell phone for any reason while on a roof. First, when on a roof, all employees should be paying 100% attention to where they are and what they are doing. Second, safety monitors may have no responsibilities other than their safety monitor duties. Using a cell phone will be deemed by OSHA as an additional responsibility and will result in a citation. Third, construction sites are dangerous areas and the use of a cell phone, especially a handheld device, will provide a distraction that very well could expose an employee to a significant hazard. So, to be safe, develop a cell phone policy that really will protect your employees.

Fall Protection Safety Stand-Down

During the first week of June, OSHA requested that all employers in the construction industry do a safety stand-down

There is *no* way you or anyone else can pay 100% to what you are doing if you permit yourself to be distracted."

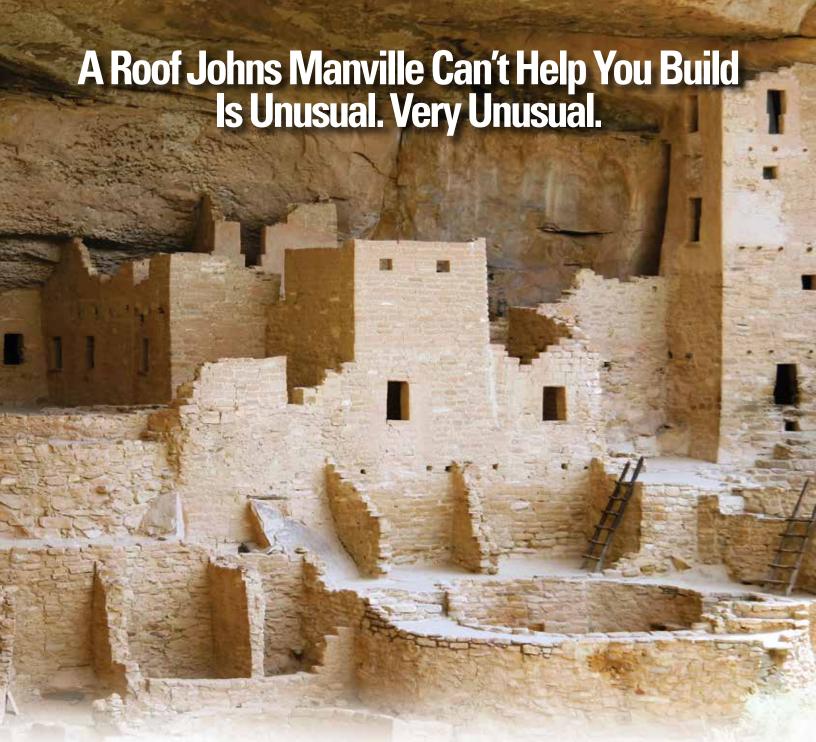


to address fall protection, scaffold safety, and ladder safety. The MRCA supported this stand-down and requested that all of our members take some quality time during that week to address these significant issues. We hope you took time for a refresher on these three very important topics. Don't forget, if you did a stand-down, contact OSHA on its website and print out your certificate to confirm your participation.

Applicator Agreements

As you know, a valuable MRCA member benefit is a legal review of all new applicator agreements. As new agreements are provided to staff, they are sent to general counsel for review. Counsel provides clarification and explanation of how some of the contract legalese may impact a contractor who signs a particular agreement. These reviews are intended to help you understand the potential impact of what you are signing on behalf of your company. The Business Management Committee manages the review process. If you have an agreement you would like reviewed, e-mail it to info@mrca.org and the committee will evaluate and see that it is addressed as soon as possible.

Take advantage of a great MRCA member benefit—complimentary legal advice on OSHA-related issues from MRCA Legal Counsel Gary Auman. Contact Gary at GWA@dmfdayton.com.



Count on the industry's only single-source provider.

For more than 150 years, JM has offered the most comprehensive line of complete roofing systems. We are the only U.S. manufacturer offering an all-inclusive list of low-slope roofing options for the commercial, industrial and institutional roofing markets. From BUR to SBS and APP to single ply—PVC, TPO and EPDM—to photovoltaic and garden or cool roofs—JM truly offers it all.

JM's product innovations deliver high-performance roof systems.

Whether you need a white, reflective roof, a black BUR roof, or even a difficult-to-flash roof, JM has the solution. We have an array of expansion joints and accessories unequaled in the industry. JM is dedicated to listening to your needs and meeting any roofing challenge you face.

We keep you ahead of the market.

We give you a competitive advantage with the products and systems that meet your customers' needs, the technical support to help you work better and the strongest guarantees in the industry backed by the financial stability of Berkshire Hathaway.

Today, and into the future, count on JM's full support with an unmatched array of systems and solutions.

Visit us at www.jm.com/roofing.





PRESORT STD US POSTAGE PAID DES PLAINES, IL PERMIT NO. 188



Our Key to Success Is You

The past year has been extraordinarily successful for our company, and we could not have done it without the support of outstanding contractor partners like you.

Over the past 12 months, Tremco Roofing & Building Maintenance reached several new milestones with your help, including:

- Having the largest shipping month in company history in May 2014
- · Adding more than 100 new employees to our growing team, many of whom are working directly with our contractors
- Maintaining an overall customer satisfaction rating of 92%*
- Streamlining our product offering to make ordering and installing easier for you
- $\cdot Introducing \ the \ most \ complete, competitively-priced \ line \ of \ restoration \ options \ in \ the \ industry \ for \ every \ roofing$ substrate and backing it by the Tremco 10-12-15-20 year warranty commitment
- · Hosting more than 500 contractor quests at our Medina, Ohio contractor training facility for comprehensive system application training

It is an exciting time, and the future has never looked brighter. Thank you for your steadfast support. We look forward to continuing to grow with you.

*Customer surveys conducted by Arizona State University Performance Based Studies Research Group

ROOFING & BUILDING MAINTENANCE

