

SMRCA Roving Roofer

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Changes in Roofing Requirements The 2012 I-codes will affect roofing practices

Earlier this year, the International Code Council (ICC) updated its model codes, commonly referred to as I-codes. ICC intends for the latest edition of the I-codes to be adopted by jurisdictions beginning in 2012. Because these new editions contain numerous roofing-related changes, you should pay close attention to the 2012 I-codes.

I-codes

Currently, the I-codes consist of 13 model codes addressing a variety of regulatory topics. Most roofing professionals are most familiar with ICC's International Building Code (IBC), International Residential Code for One- and Two-Family Dwellings (IRC), and International Energy Conservation Code (IECC), which address most building and structures, one- and two-family residential buildings, and buildings' minimum thermal insulation requirements, respectively. Other I-codes address topics such as fire prevention, plumbing, mechanical systems and building site zoning.

I-codes are published on a three-year cycle. For example, the IBC and IRC initially were published in 2000 and revised editions were published in 2003, 2006 and 2009.

Revisions to the I-codes are made through ICC's code development process, which consists of interested parties submitting proposed changes, a public hearing with ICC's code development committee during which submitted changes are discussed and an ICC final action hearing where ICC's entire membership votes on all submitted changes. NRCA actively participates in ICC's code development process representing roofing contractors' interests by submitting code change proposals and providing testimony at public hearings and final action hearings on proposals submitted by others. I typically spend five to seven weeks a year being involved in ICC's code development process.

ICC's deadline for changes to IBC's 2012 edition is Jan. 3, 2012, for possible publications in IBC's 2015 edition.

In March 2012, ICC will publish two additional model codes: the International Pool and Spa Code and the International Green Construction Code (IGCC). This

article specifically does not address upcoming IGCC requirements.

2012 IBC

Requirements for roof systems primarily are addressed in IBC's Chapter 15—Roof Assemblies and Rooftop Structures.

In Section 1503.6—Crickets and Saddles, an exception has been added that exempts unit skylights from requiring crickets or saddles. Previously, IBC 2009 required crickets or saddles for all roof system penetrations 30 inches or wider, including unit skylights. Unit skylights need to be tested and labeled according to AAMA/WDMA/CSA 101/I.S./A440, "North American Fenestration Standard/Specifications for Windows, Doors and Skylights."



In Section 1504.5—Edge Securement for Low-slope Roofs, the code's requirements for roof edge metal to comply with ANSI/SPRI ES-1 has been clarified to indicate only the wind-resistance testing portions of ANSI/SPRI ES-1 (Test Methods RE-1, RE-2 and RE-3) shall apply. Wind loads on roof edge metal need to be determined using the

code's Chapter 16—Structural Requirements, not ANSI/SPRI ES-1's wind load determination method.

In Section 1505—Fire Classification, an exception has been added that exempts copper sheet roofing, minimum 16 ounce, over combustible roof decks from requiring fire testing. Previously, IBC 2009 required copper sheet roof systems to be fire-tested. Using IBC 2012, copper sheet roofing, minimum 16 ounce, over combustible roof deck can be considered Class A without testing.

For steep-slope roof system underlayment, special attachment requirements have been added for high-wind regions. For regions where the nominal design wind speed is greater than 110 mph, corrosion-resistant fasteners shall be applied along the overlap at a maximum spacing of 36 inches on center. Where the nominal design wind speed is 120 mph or greater, underlayment shall have 4-inch minimum laps and be fastened in a 12-inch grid pattern between side laps and



SOUTHEASTERN MICHIGAN ROOFING CONTRACTORS ASSOCIATION

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6-inch spacing at laps using metal or plastic cap nails. An exception allows an adhered underlayment to be used in lieu of these special high-wind underlayment lap and attachment requirements.

In Section 1510—Reroofing, an exception has been added that allows an existing ice-dam protection membrane to remain in place and be covered with an additional layer of ice-dam protection membrane during removal of existing steep-slope roof systems. Previous IBC editions could be interpreted as requiring removal of an ice-dam protection membrane, which usually results in roof deck damage.

Specific requirements for rooftop photovoltaic (PV) systems have been added to the roofing chapter of the 2012 IBC. Rack-mounted PV panels or PV systems that are adhered or attached to roof coverings need to be tested and labeled to have the same fire-resistance classification as Table 1505—Fire Classifications requires for the building’s roof covering. Testing and labeling according to UL 1703, “Flat-Plate Photovoltaic Modules and Panels,” also are required. Rack-mounted PV panels need to be designed for wind loads using the component and cladding approach of Chapter 16, which includes considering an effective wind area based upon the dimensions of a single PV unit frame. Roof-covering-integrated PV modules or shingles need to be wind-tested according to ASTM D3161, “Test Method for Wind Resistance of Asphalt Shingles (Fan Induced Method).”

Additional new requirements for rooftop PV systems also are contained in the 2012 International Fire Code (IFC).

2012 IRC

Requirements for roof systems primarily are addressed in IRC’s Chapter 9—Roof Assemblies. The roofing-related changes mentioned for IBC 2012 are incorporated into IRC 2012. The following additional revisions also are included.

In Section R903.2—Flashings, a kick-out flashing now is required for steep-slope roof systems to divert runoff water from where an eave intersects a vertical sidewall. When a metal kick-out flashing is used, it should be

| Minimum thermal insulation requirements for commercial buildings | | | |
|--|--------------------------------|---|-----------------|
| Climate zone | Roof assembly configuration | | |
| | Insulation entirely above deck | Metal buildings (with R-5 thermal blocks) | Attic and other |
| 1 | R-20ci | R-19 + R-11 LS | R-38 |
| 2 | R-20ci | R-19 + R-11 LS | R-38 |
| 3 | R-20ci | R-19 + R-11 LS | R-38 |
| 4 | R-25ci | R-19 + R-11 LS | R-38 |
| 5 | R-25ci | R-19 + R-11 LS | R-38 |
| 6 | R-30-ci | R-25 + R-11 LS | R-49 |
| 7 | R-35ci | R-30 + R-11 LS | R-49 |
| 8 | R-35ci | R-30 + R-11 LS | R-49 |

ci = Continuous insulation
 LS = Liner system (a continuous membrane installed below the purlins and uninterrupted by framing members; uncompressed, unfaced insulation rests on top of the membrane between the purlins)

corrosion-resistant and at least 0.19 of an inch thick (26-gauge galvanized steel).

For asphalt shingle roof systems at sidewall flashing conditions, either a continuous flashing or step flashing now is permitted. Previous IRC editions required step flashing only. Also, a drip edge now needs to be provided at eaves and gables (rakes) and extend a minimum of 2 inches onto the roof deck and a minimum of 1/4 of an inch below the roof sheathing. Joints in drip edge sections need to be overlapped a minimum of 2 inches. Drip edges need to be attached at a maximum of 12 inches on center.

In IRC’s 2006 and 2009 editions, a requirement was provided that prohibited re-covering roof systems with asphalt shingles in specific regions susceptible to hail damage. This restriction is removed from IRC 2012.

2012 IECC

Thermal insulation requirements for roof systems and attics for commercial and residential buildings are provided in IECC’s Chapter 4 [CE] - Commercial Energy Efficiency and Chapter 4 [RE] - Residential Energy Efficiency, respectively. IECC considers residential buildings to be detached one- and two-family dwellings and multiple single-family dwellings (townhouses), as well as certain buildings three stories or less in height. Commercial buildings are all other buildings not included

in the definition of residential buildings.

For commercial buildings, the 2012 IECC generally requires notably higher levels of thermal insulation than previous editions. Minimum thermal insulation requirements using IECC’s prescriptive method are provided in that figure. The Climate Zones indicated in the figure’s table

are provided in Chapter 3 [CE] - General Requirements; Climate Zone 1 occurs in south Florida, and climate zone numbers increase in a northerly direction with Climate Zone 8 occurring in Alaska.

Also, for Climate Zones 1, 2 and 3 the 2012 IECC requires low-slope roof systems installed directly over conditioned spaces to have high solar reflectances and thermal emittances. The code’s Table C402.2.1.1—Minimum Roof Reflectance and Emittance Options specifies the criteria as follows:

- Three-year aged solar reflectance of 0.55 and three-year aged thermal emittance of 0.75
- Initial solar reflectance of 0.70 and initial thermal emittance of 0.75
- Three -year aged solar reflectance index of 64
- Initial solar reflectance index of 83

Roofs or portions of roofs with PV systems, solar air or hot water systems, roof gardens or vegetative roof systems, decks or walkways, or HVAC systems are exempt from the high solar reflectance and thermal emittance requirements.

For residential buildings covered by the IECC, ceiling R-values of R-30 in Climate Zone 1, R-38 in Climate Zones 2 and 3, and R-49 in Climate Zones 4 through 8 are required by Table R402.1.1 in Section R402—Building Envelope.

Also, in Section R402.2.3—Eave Baffle, vent baffles are required in vented attics to maintain ventilation openings equal to or greater than the sizes of the vents.

2012 IFC

In the IFC, roofing-related requirements are in multiple locations.

A new subsection, Section 605.11—Solar Photovoltaic Power Systems, addresses ground-based and roof-mounted PV systems. PV systems need to comply with NFPA 70, “National Electric Code,” and meet specific marketing requirements. For roof-mounted PV systems, additional requirements for the location of DC conductors, rooftop access and pathways, and firefighters smoke ventilation procedures are provided. Generally, for steep-slope roof systems, a 3-foot wide access pathway clear of any PV modules is required at side edges and ridges and an 18-inch-wide pathway is required along hips and valleys. For low-slope roof systems, generally a 4-foot-wide access pathway is required at the perimeter of PV arrays and no single array shall measure more than 150 feet by 150 feet without an additional pathway.

New requirements applicable to vegetative roof systems also are provided in Section 317—Rooftop Gardens and Landscaped Roofs. No vegetative roof system’s area shall exceed 15,625 square feet or a maximum dimension of 125 feet in length or width. For vegetative roof system areas abutting combustible construction, a minimum 6-foot-wide buffer needs to be provided. Also, a maintenance plan for vegetation needs to be provided to and approved by the jurisdiction’s fire code official and dead foliage needs to be removed at least twice per year.

PV and vegetative roof systems

Compliance with and enforcement of the 2012 I-codes requirements for PV and vegetative roof systems likely will present unique challenges because the code requirements for these systems are spread among the IBC, IRC and IFC.

For example, for rooftop PV systems,

code requirements applicable to electrical code compliance, fire classification and wind resistance are provided in the IBC and IRC. Requirements for DC conductors’ locations, rooftop access and pathways, and firefighters smoke ventilation procedures are provided in the IFC.

Also, a new requirement has been added in IFC’s Section 105.7.14 indicating a construction permit is required to install or modify PV systems. This requirement does not specify whether the permit should be issued by the fire code official or building (or residential) code official; the local jurisdiction likely will make that decision. The inclusion of a model code permit requirement for PV systems is significant because it is one of the only places in the I-codes that requires construction permits.

Similarly, for vegetative roof systems, code requirements applicable to materials, fire classification testing, and wind loads and resistance are provided in the IBC. Requirements for access pathways, fire standpipes and setbacks from combustible surfaces are provided in the IFC.

Typically, a code jurisdiction’s building code official is responsible for plan review and building code or residential code enforcement while the jurisdiction’s fire code official enforces the fire code. As a result, for PV and vegetative roof systems, two code officials have separate responsibilities for these systems.

It remains to be seen how individual code jurisdictions will handle this shared code enforcement responsibility or whether some jurisdictions may assign the overall responsibility to either the building code official or fire code official.

Implementation

With the publication of the 2012 I-codes, you should begin preparing for the new code’s implementation. ICC intends for the latest edition of the I-codes to be adopted by jurisdictions beginning in 2012.

Because these new editions contain numerous roofing-related changes, be aware of the changes included in the 2012 I-codes and when the new code will be adopted. Code update and adoption

timetables are determined by local authorities, typically municipal or state governments. I encourage you to contact the local authorities that have jurisdiction in the areas you work to learn of the specific codes and editions that are currently applicable and any plans or timetable the jurisdictions have for code updates.

On Thursday Feb. 23, during the 2012 International Roofing Expo, © I will present an educational program where I will provide a more detailed explanation of the changes in the 2012 I-codes.

Article reprinted in its entirety from the December 2011 Issue of Professional Roofing Magazine with their permission.

This article was written by Mark S. Graham. Mark S. Graham is NRCA’s associate executive director of technical services.

ICC and ASHRAE release publication

The International Code Council (ICC) and the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Inc. have made available 2012 *International Energy Conservation Code and ANSI/ASHRAE/IES Standard 90.1-2010: Energy Standard for Buildings Except Low-Rise Residential Buildings*, which contains the 2012 International energy Conservation Code (IECC) and ANSI/ASHRAE/IES Standard 90.1-2010, “Energy Standard for Buildings Except for Low-Rise Residential Buildings.” The publication will help ensure newly built and renovated buildings comply with the latest codes and standards.

According to the Department of Energy, the 2012 IECC will result in buildings that are at least 15 percent more energy-efficient than those built according to the 2009 edition. The code contains improved requirements for window, doors, skylights and HVAC systems. ANSI/ASHRAE/IES 90.1-2010 also has been expanded to include more detailed requirements and changes to help improve envelopes, mechanical and lighting systems, and service water heating.

2012 International Energy Conservation Code and ANSI/ASHRAE/IES Standard 90.1-2010: Energy Standard for Buildings Except Low-Rise Residential Buildings can be purchased at www.iccsafe.org/2012energy.

Independent Contractors or Employees?

The Immigration Reform and Control Act of 1986 (IRCA) legally mandates that United States employers verify the employment eligibility of every person one hires. Employers are charged with the affirmative duty to check identity documents of an employee to see if he/she has the authority to work in the United States. An "employee" is "an individual who provides services or labor for an employer for wages or other remuneration."

IRCA made it unlawful for employers to knowingly hire or continue to employ unauthorized workers and imposed penalties on employers for such practices. In response to IRCA, legacy Immigration and Naturalization Service created an Employment Eligibility Form (I-9) and required its accurate and timely completion by all U.S. employers and their employees. The I-9, Employment Eligibility Verification Form is used to verify the identity and employment authorization of individuals. The employer must review the employee's original identity and work authorization documents, selected from a list provided by the government, within three days of his/her start date.

While I-9 regulations do not require an employer to check identity and eligibility and complete I-9's for "independent contractors", the targeted workers must qualify under the law as independent contractors for the employer to escape liability. The mere designation of a worker as an "independent contractor" is not sufficient to insulate an employer from liability. Distinguishing an independent contractor from an employer can be problematic.

U.S. Immigration and Customs Enforcement (ICE) began a new initiative in April 2006 to target employers engaged in the use of unauthorized workers. This effort put the emphasis squarely on enforcement and punishment, instead of education and compliance. Whereas the former practice was to use administrative authorities to investigate and penalize violations, ICE began using criminal investigation techniques and charges far more widely.

For example on May 8th, 2006, ICE raided Fischer Homes, a Northern Kentucky

construction developer. In this raid, ICE arrested seventy-six workers and four of the company's construction supervisors. The workers, mostly Hispanic, were charged with illegal entry and arraigned in the U.S. District court for the Eastern District of Kentucky in Covington. Four supervisors were charged with the felonies of conspiracy and harboring aliens not authorized to be in the United States. Two additional supervisors were indicted later.

The significant factor in the Fischer Homes case is that the undocumented workers were not paid "employees" of the company. Rather, they were all employees of subcontractors used by Fischer Homes for the construction of Fischer's



developments. The supervisors were charged with knowingly using subcontractors to shield Fischer homes from the requirement of I-9's and enabling the unauthorized workers to be employed on the jobsites. Fischer Homes took the position that there was never any knowing use of undocumented workers on their jobsites and that the undocumented workers were the responsibility of the subcontractors. This notion was rejected by ICE and later the court.

ICE has taken a rather broad view of the employer's constructive knowledge, and of the circumstances in which an employer is under an obligation to make further inquiry of the contractor and even of the workers as to the legality of their presence in the United States.

Using Internal Revenue Service (IRS) regulations as a guide, ICE relies on commonly accepted factors to determine if

a worker is an independent contractor. Such factors can include whether the employer supplies the materials, is the sole employer for the independent contractor, directs the time and method of employment, and has authority to hire and discharge workers. Many other factors may come into play, such as providing housing and transportation for the workers. Even if a worker is properly classified as an independent contractor, the employer still has a duty not to use undocumented workers if the employer knows that a contractor has undocumented persons as workers on the employer's worksite.

Violations of the I-9 regulations are most often discovered through an internal audit, a third party audit conducted by a law firm, or pursuant to an investigation by Immigration and Customs Enforcement (ICE). Government investigations of employers or raids of business facilities are usually the result of a tip, the employer's history, the employer's industry, or as a result of information-sharing with the Social Security Administration. Recently, ICE has stepped up its enforcement efforts and is randomly investigating all types of employers.

A determination that a company has knowingly hired, or continues to employ, individuals who are not authorized to work in the United States have severe consequences. These can range from fines of \$375 to \$14,000 per hire and/or criminal prosecution and state penalties. In recent years, large companies such as Chipotle, Tyson and Wal-Mart have made national headlines after I-9 audits and ICE raids resulted in the discovery that they employed individuals who were not permitted to work in the United States. In addition to the damage to their reputations, these companies were fined, and in some cases, criminally prosecuted. Don't let this happen to your company.

Any questions or comments regarding this article may be addressed to Meghan Kennedy Riordan at Kerr, Russell & Weber, PLC. (Attorney's for the SMRCA/RIPF).

2012 Standard Mileage Rate

Beginning on January 1, 2012 the standard mileage rate for the use of car (also vans, pickups or panel trucks) will be:

- 55.5 cents per mile for business miles driven
- 23 cents per mile driven for medical or moving purposes
- 14 cents per mile driven in service of charitable organizations

www.irs.gov for additional information

MICHIGAN CONSTRUCTION & DESIGN TRADESHOW

The Construction Association of Michigan (CAM), will hold their Michigan Construction & Design Tradeshow at MotorCity Casino Hotel in Detroit. This one-day tradeshow will be held on Wednesday, February 8, 2012, and will be attended by construction owners, contractors, suppliers, architects and engineers. Show hours are 10:00 am to 5:00 pm.

The United Union of Roofers, Waterproofers and Allied Workers Local 149, SMRCA and the Joint Apprenticeship School will be exhibiting at the show. Stop by and see us at booth number 114.

You can pre-register to attend the CAM show at:

<https://www.awecomm.com/sec/cam/regi.asp?id=114>

Registration and parking is free.

Booth # 114

Industry Schedule of Events

January 13-15, 2012

30th SPRI Conference and Annual Business Meeting
Ft. Myers, FL
www.spri.org



January 19-20, 2012

CRCA 29th Annual Trade Show
Oakbrook Terrace, IL
www.crca.org



January 30—February 2, 2012

SPFA Convention & Expo
Dallas, TX
www.sprayfoam.org



February 8

Michigan Construction & Design Tradeshow
Detroit, MI
www.cam-online.com



February 22-24

IRE
Orlando, FL
www.theroofingexpo.com



March 8

IREM 37th Annual Trade Show
Novi, MI
www.iremmi5.org



March 15-20

RCI 27th International Convention & Trade Show
Dallas, TX
www.rci-online.org



March 20-22

NERCA 86th Convention & Trade Show
Mashantucket, CT
www.nerca.org



Fun Dates to Remember

February 14 - Valentines Day

April 13—Daylight Savings Time Begins

March 17— St. Patrick's Day

April 24—Easter

May 8—Mother's Day



2012 SMRCA Golf Outing

The SMRCA Annual Golf Outing will be held on

MONDAY, May 21, 2012

At Twin Lakes Golf Club

Information will follow at a later date

Mark Your Calendars!

MiRCA 2012 Convention

The 47th MiRCA Annual Convention will be held on

Thursday, July 26-29, 2012

At Otsego Club in Gaylord, MI.

Mark Your Calendars!

Birthday Wishes

Dan Casey
T.F. Beck Company
January 7



Joe Crane
Crane Roofing, Inc.
January 22

Chuck Rosa
Lifetime Member
February 16

Jackie Walters
LaDuke Roofing & Sheet Metal
March 1

Bill Borgiel
Lutz Roofing Company, Inc.
April 25

Jim Markiewicz
GAF Materials Corporation
April 29

Jeff Mullins
North Coast Commercial Roofing Systems
April 29

Working Together Program Update

This past quarter we went to each school district where our contractors worked and did a "satisfaction audit" to determine how customers perceived union workmanship. The results were very positive. Congratulations to all the contractors and union members who worked on these projects.

Last year we positively impacted 3.7 million in work that may have gone to non-union contractors. This year we don't expect the same results as our program has gained the attention of non-union contractors. After our first year non-union contractors are aware of our presence and know that we will be watching to ensure that prevailing wage is paid. Last year we audited 3 contractors and 2 were found to not be in compliance with prevailing wage. The sheet metal union has also helped our cause by following up prevailing wage issues on some roofing projects with sheet metal. To measure our performance this year we plan to track non-union market share. Last year we tracked about 25 million in work, not including the recent Warren School District bids. About 5 million or 20% of this work went to non-union contractors. Our goal is to substantially reduce non-union market share next year. A 50% reduction would be nice.

A majority of the 7000 squares of Warren School work was awarded to out-of-area contractors. In the past there has been a shortage of 149 labor to staff projects like this during the summer months when our members are busiest. It would seem to us that there should be a way to capture as many fringe dollars as possible for our Local on these projects. We'll keep you posted on our progress.

Besides for visiting schools and municipalities in hopes of promoting union contractors we are meeting with construction managers who oversee public work in the metro area. Safety is a big concern for them and also our contractors. MiOSHA reporting of inspections is vastly skewed against large contractors who have much more exposure than smaller non-union contractors. Somehow this has to change but resolving this issue is above our pay grade. We have visited at least a hundred job sites in the past year. And with few exceptions we can tell if a project is union before we get out of the car simply by looking at the safety and ground set up. We want to demonstrate to construction managers and their clients that we are working in a safe manner that reduces their liability.

Please remember that our most effective time is the pre-bid meeting. This gives us the time to follow-up with non-union contractors. So keep us informed of these meetings by emailing us.

Joint Apprenticeship School Upcoming Classes

Classes available to all Detroit 149 Journeyman and Apprentices:

Monday, January 23, 2012
Apprentice 2 and Single Ply 1

Tuesday, January 24, 2012
Apprentice 1 and Single Ply 2

Wednesday, January 25, 2012
Built Up 1 and Steep Slope 1

Thursday, January 26, 2012
Built Up 2 and Steep Slope 2

The above classes start at 6:30pm.

Coming in February:

Journeyman Upgrade—2 day class
Includes OSHA 10, EPDM detailing & PVC/TPO detailing.

For more information on these classes contact the JAC School at 248-543-3847

Also offered are:

OSHA 10 hour
First Aid, CPR/AED
Hand Signals and Rigging

If you are interested in any of these classes contact the JAC School to make arrangements and for pricing. There is a nominal fee for these classes.

SUGGESTIONS

Let us know what you think of the Roving Roofer. If you have any suggestions, ideas or thoughts that you would like to see in the Roving Roofer, let us know. We value your opinions and ideas! Email us at:

heather.hadley@smrca.org



JAC School on the BIG Screen

On November 20, 2011, New York University (NYU) came to the JAC School to film part of their movie TAR. TAR is based on the 1979 nuclear power plant core meltdown on 3 Mile Island near Harrisburg, PA. A few Local 149 members participated in the filming; Joe Gilliam, Lucas Brown, Bob Drogosch and Brian Gregg. The Hollywood stars are Mila Kunis & James Franco.

You never know, you may see this movie at the next film festival.



Pictures courtesy of Brian Gregg, JAC School.

Upcoming Seminars

If you are interested in any of the following seminars, call the SMRCA office at (586) 759-2140 for more information.

CAMTEC

AIA Contracts and Forms

January 26

Bloomfield Hills, MI

This seminar instructs contractors and subcontractors on the use of AIA contracts, including design-build, construction management, and subcontract agreements. Special attention is paid to AIA A201. Other topics include: contractual assignment of risk; owner, architect, contractor and subcontractor obligations; dispute resolution procedures; change orders; and key differences between the AIAs A201 and the new Consensus DOCs 200. This course is directed at those who negotiate and manage contracts, such as company owners, senior managers, and project managers.

Construction Liens

March 21

Bloomfield Hills, MI

This is a fast-paced nuts and bolts workshop on how to establish a construction lien for contractors, subcontractors and suppliers on commercial, industrial, office and residential projects. Learn how to prevent liens if you are an owner or a general contractor. Learn the critical time period and how to fill out the notice of furnishing, claim of lien, sworn statement, lien waiver and other necessary forms. This workshop is a must for Owners, Contractors, Subcontractors, and Suppliers.

For more information on the above classes, registration information and additional classes, log on to: www.cam-online.com

MIOSHA Training Programs

Asbestos and Lead Awareness

January 11

Warren, MI

February 9

Scottville, MI

March 15

Holland, MI

Asbestos Awareness Training is required annually for employees whose work activities may contact asbestos-containing materials (ACM) or presumed asbestos-containing materials (PACM), but do not disturb ACM or PACM during their work activities. Lead is found in both industry and in construction, and poses a threat to all who come into contact with it. This combined training consists of information regarding asbestos and lead and their various forms and uses. Attendees will receive their two-hour, Class IV Asbestos Awareness certification card.

MIOSHA Training Programs Continued

Health Hazards in Construction

January 19

Scottville, MI

February 8

Warren, MI

This course will educate and make the construction manager/worker aware of some typical occupational health hazards and potential health effects that are associated with the construction trade industry. This workshop is designed to give an overview of the basics of industrial hygiene, as well as health issues that may be encountered in the construction industry. Topics covered include lead, silica, cadmium, isocyanates, hexavalent chromium, and asbestos.

Job Site Survey in Construction

January 26

Ann Arbor, MI

March 7

Northville, MI

Jobsite analysis and hazard prevention and control are key elements in an effective Safety and Health Management System (SHMS). This course will look at the importance of properly conducting a jobsite survey and how to use the jobsite survey to monitor the effectiveness of a company's SHMS. This course will identify resources that can be used as a guide to help safety managers develop their jobsite inspection procedures and best practices.

Part 12—Scaffolds and Scaffold Platforms

February 7

Escanaba, MI

February 14

Cadillac, MI

March 14

Muskegon, MI

April 5

Bloomfield Hills, MI

May 1

Grand Rapids, MI

Attendees will be indoctrinated on the contents of the MIOSHA Construction Safety Standard Part 12, Scaffolds and Scaffold Platforms. This information will be conveyed through the use of power point, videos, lecture, and the use of a scale model frame scaffold. The focus will be on the most commonly used scaffolds in the construction industry including ground supported, suspended, mobile, and rough terrain forklift scaffolds. Also included will be the common hazards as well as best practices associated with the use of scaffolds. At the conclusion of the course there will be a Q & A session followed by a quiz.

For more information on MIOSHA Training Programs, visit: www.michigan.gov/dleg/0,1607,7-154-11407_15317-40999--,00.html

NRCA Programs

Online Educational Programs

Roofing 101

Roofing 101 is an interactive online educational program addressing basic roofing terminology, roof assembly components and roof systems.

Impact-resistant Roofs: Smart Steps to Reduce Hailstorm Damage

Impact-resistant Roofs: Smart Steps to Reduce Hailstorm Damage is a free, online learning experience that consists of four self-paced learning modules.

Impact-resistant Roofs: Contractor Certificate

A convenient online educational program that will help you and your employees better serve your customers by building basic competencies for identifying, selecting, installing and selling impact-resistant roofing products.

Roofing, Energy and the Environment Series: Energy Efficiency in Roof Systems

Grow your company's business with new energy-efficient systems, installation methods and technological advances.

Introduction to Fall Protection For New Roofing Workers

This module is focused on introducing fall protection to new roofing workers and consists of three lessons.

Low-slope Fall Protection For New Roofing Workers

This program is focused on introducing low-slope fall protection to new roofing workers and consists of three lessons.

Steep-slope Fall Protection For New Roofing Workers

This program is focused on introducing steep-slope fall protection to new roofing workers and consists of four lessons.

For more information, visit: <http://www.nrca.net/rp/education/nrca/onlineschedule.aspx>