#### Change Order Seminars Turn Risk Into Reward

Why is change order education so important? According to Dr. Awad Hanna, instructor of MCAA's extremely successful one-day course on change orders, the seminar opens contractors' eyes to the risk involved in bidding jobs that are poorly designed.

Hanna says many owners think contractors make money from change orders, and some contractors also think this way; they are both wrong! Hanna goes on to say that the most efficient workflow is to "go in and do the work with no change orders. Change orders are disruptive, like when you plan a trip and have to make a change at the last minute. The need to quantify costs is opening everyone's eyes to this. Research, such as the Construction Industry Institute (CII) study Quantifying the Cumulative Impact of Change Orders for Electrical and Mechanical Contractors, is a key for educating contractors to the real-world costs of change orders."

Many of the experienced contractors who have taken Hanna's class say it's the best seminar they've ever attended. For those just starting out, it's an educational boon.

Hanna firmly believes that education at all levels marks the key difference between union and nonunion shops, so it was natural for him to contact MCAA, the "education association," about presenting change order seminars. Hanna commends MCAA Executive Vice President and CEO John Gentille for being "immediately able to make a decision" on the importance of these courses for MCAA members. Hanna also lauded the Mechanical Contracting Education and Research Foundation for being the think tank of MCAA, saying their "members are leaders."

After teaching hundreds of contractors across the country, Hanna says they're "smart people with an urgent need for

education." In most cases, they are educated in things like history and English, and they end up in contracting through a family or other connection.

#### **Keys to Success**

The Change Order Seminar has been an "unbelievable success; I never dreamed this," according to Hanna. The keys to its success, states Hanna, are that the class offers:

- A logical explanation of why contractors should ask for more money when change orders are involved;
- Practical strategies contractors can implement immediately; and,
- A workshop format, with case studies, that is very interactive, allowing students to practice what they learn immediately and make mistakes in class where they can be quickly corrected and where the stakes are not as high.

Hanna has also noticed that, "the typical company sends one or two people who are responsible for returning to the company and spreading what they have learned to their co-workers. This continues the learning process, since the best way to learn is to teach."

Another reason change order education is so important, according to Hanna, is that these classes open contractors' eyes to the risk involved in bidding jobs that are poorly designed. When pricing change orders, many contractors use MCAA's *Labor Estimating Manual (LEM)*, which is meant to calculate a price for direct cost, but the *LEM* does not compute the cumulative impact of change orders.

Hanna believes that a major asset that would accrue if the contracting community better understood this would be improved relations with owners. He would like to see the owner community participate in Change Order Seminar classes, and suggests that MCAA member attendees invite key owners and engineering firms to class with them so all have



the same background on change orders. In one case, a contractor and owner used practices taught in class to resolve an issue in 15 minutes, thereby avoiding

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## Here's what your peers are saying about MCAA's Change Order Seminar:

"I learned things that I never knew before (25+ yrs.) and will definitely use soon. Thank you."

Dave Langell, Industrial Power Systems, Inc., Toledo, OH

"This was an excellent seminar, one of the best I have ever attended. I will implement changes immediately because of this course!"

Jim McNamee, West Chester Mechanical, Chester, PA

"One of the most insightful seminars my company has ever attended. We hope all contractors start this practice to raise the bar for everyone." Anonymous, Class held at LaGuardia Marriott

"You covered a lot of information in a short period.
You kept it interesting and opened my eyes to ideas for change order justifications. Thank you."
Terry Harris, Campbell Inc., Toledo, OH

"Very good seminar. I will be able to apply everything that was discussed and presented. Dr. Hanna proved himself to be very knowledgeable of the subject." No Name, Industrial Power Systems, Inc., Toledo, OH

"Dr. Awad Hanna did an excellent job presenting the Change Order Seminar to our group. It was a home run! Our group had very positive comments. We ended up having two sessions with 40 people in attendance and we will ask to have him back."

Rick Ernst, Executive Director, CPMCA

# **Speaking of Safety**

#### **Safety Resources for 2003**

So far this year, contractor members have received three new safety resources from MCAA as follows:

- · Model Excavation Safety Program;
- Asbestos Awareness Safety Training Kit; and,
- Hazard Communication Safety Training Kit

This month's publication is a non-technical safety-training guide to help trainers make safety training as engaging and effective as possible. The MCAA Safety Training Guide is a 37-page guide that provides information on training preparation, first impressions, delivery methods, making the training engaging, critical safety training topics for mechanical construction and service work, and training documentation.

Next month members will receive the test, answer key, and binder tab that correlate with the *Asbestos Awareness Safety Training Kit*. These materials are to be inserted in the MCAA Safety Training Kit—Test Series binder.

In November, members will receive the test series materials for the *Hazard Communication Safety Training Kit.* 

#### OSHA Issuing Ergonomics Citations

Ergonomics is the science of adapting work or working conditions to the worker. The unproven theory is that implementing ergonomics programs in every workplace will prevent musculoskeletal disorders such as tendonitis, carpal tunnel syndrome, eyestrain, etc. Although OSHA does not have an ergonomics standard or regulation, the agency has chosen to issue ergonomics citations and fines to companies that fit into its general industry category (general industry includes mechanical service and pre-fabrication shop work). Section 5 (a)(1) of the Occupational Safety and Health Act of 1970 (OSH Act) states that, "each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or series physical harm to his employees." This general duty clause allows OSHA to issue citations and fines anytime it determines that workers are exposed to recognized hazards. There is still considerable debate about whether a lack of ergonomics in workplaces constitutes a recognized hazard.

There is major concern about the agency's intentions with regard to

ergonomics enforcement. A warehouse company in the Midwest recently received a citation and several thousand dollars in proposed penalties despite its voluntarily implementing an extensive ergonomics program. OSHA also recently cited a soft-drink bottling facility located in the East, which was also voluntarily implementing an ergonomics program. MCAA will continue to monitor and report to you about this issue.

### OSH Act Reform Legislation Passes Subcommittee

Three of Representative Charlie Norwood's (R-GA) proposed bills to reform the OSH Act passed the House Education and Workforce Subcommittee. H.R. 2729 would increase the size of the Occupational Safety and Health Review Commission (OSHRC), which hears and rules on employer-contested OSHA citations, from three to five commissioners. H.R. 2730 would ensure that OSHRC gets independent review of OSHA citations and that the courts honor its decisions. H.R. 2728 would give the commission the authority to extend employers' 15-day deadline to file to contest OSHA citations. The bills are gaining support in Congress, but it's not known yet whether there will be enough support to pass them into law. MCAA supports all three bills. +

#### **CHANGE ORDER SEMINARS**

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litigation and maintaining a positive business relationship.

#### What's next?

Hanna is preparing a course on "Benchmarking Productivity Using Manpower Loading Curves and Earned Value." He states that, "Many contractors don't track labor productivity in the field. If they had this information, it could be another positive tool to use with owners. This information is also critical for determin-

ing the percentage of project completion and what it's cost to get to a given point of completion." Hanna advises that the Department of Energy only accepts bills with this information; others aren't far behind. The new class will prepare contractors to provide invoices with the information owners want, thus speeding the payment process.

Watch the Reporter for news about the upcoming class. For more information about the Change Order Seminar or to

schedule a course, contact Dr. Hanna at 608–263–8903, fax 608–246–0614, or e-mail at hanna@engr.wisc.edu.
You may also contact MCAA's John Shupp at 800–556–3653 or jshupp@mcaa.org.

To order a copy of the CII study Quantifying the Cumulative Impact of Change Orders for Electrical and Mechanical Contractors, contact Antoinette Shupp at 301–990–2200 or visit www.mcaa.org/store.