In the Spring of 2018, representatives of the Education and Training Committee and the Concrete 2029 initiative met to discuss the trades training issue that both groups were working on. Clear synergies were identified between the two initiatives, and a plan was made to move forward. Over the course of the last 12 months, meetings have been hosted at Structural Group in Baltimore, at CECO Concrete Services in Kansas City, and last month in Newport Beach, CA at DPR. All three offices are beautiful facilities, and a visit to Southern California in February was a nice departure from the frozen North.

Throughout the course of these meetings, the group explored training philosophies that our peers are successfully using in their respective organizations, and analyzed how they might apply to our training initiative. A comprehensive list of existing training opportunities was developed, and then applied to identify training gaps. Partnerships with existing training programs arose, and some exciting opportunities to capitalize on joint efforts are being explored. Moving forward, the team has developed a plan to focus on two paths of training development: crew leadership and trades skills, the overall goal being to improve productivity.

In my opinion, one of the more notable lessons learned in the discussions was the hiring of a professional “educator” to oversee company training. Training initiatives are regularly implemented in our organizations, with subject matter experts or HR departments overseeing the programs. It is often overlooked that “teaching” is an acquired professional skillset that most in our industry do not have. As we look to develop successful industry training programs, we should look to hire or contract with professional educators to ensure the success of these programs.

Executive Director’s Message - Partners with NCCER

Bev Garnant

ASCC’s Education & Training Committee is proud to announce a new partnership with the National Center for Construction Education & Research (NCCER), Alachua, FL, to review and update their Concrete Finisher Curriculum. ASCC will provide subject matter experts to assist in expanding and updating the current education modules and will edit all text prior to publishing. When complete, concrete contractors will have an up-to-date training program available for field workers who place and finish, erect formwork,
2019 is off to a great start! I’m excited as we kick off a new year for the Decorative Concrete Council. For the next couple of years, my focus with the group will be centered around our strategic plan and building on the collaboration in our industry. I have seen first-hand the power of working together and am excited to see how this takes our industry to the next level. One example is the great community project the DCC completed last year in Warner Springs, California, where ASCC members and non-members alike came together for the good of the community. Competitors worked side-by-side and people from across the nation came together to help the students and community of Warner Springs via the talents we each bring. The impact of that one project speaks volumes (if you haven’t seen it yet, check it out on the DCC Facebook page). We have such a great industry and community and seeing what is possible with a little teamwork shows what is ahead. I hope to encourage these relationships and to help this knowledge and collaboration extend into the design and engineering industry as well. By bridging the gaps between ourselves and others within our industry and extending it beyond just “concrete” people, we have a great and exciting future of innovation and excellence ahead.

World of Concrete Review

The Decorative Concrete Council and Concrete Polishing Council were well represented at the World of Concrete 2019. The two specialty councils once again joined forces to share a booth outside in the Concrete Surfaces & Decorative Concrete Silver Lot. The group opted for a slightly different location then last year, which proved to be a good move. The exposure was great, with excellent traffic the entire week. As in years past we relied on volunteers from both councils to work the booth; thank you to all who volunteered their time. Another new addition were two sample racks donated by Solomon Colors. These A-Frame racks each hold twelve 18” x 18” samples. The samples, covering all facets of decorative and polish finishes, were provided by DCC and CPC members. A big thank you to H&C, Increte, Ready Mix Services, Hi Tech, and Solomon Colors providing such amazing samples. The feedback was all positive regarding the samples racks, and we have kept the racks for future shows. As a side note, Sunday night before the show opened a wind storm “blew” through Vegas and totally destroyed the DCC / CPC booth. When I arrived Monday morning the booth was literally a pile of debris lying in the parking lot. Thanks to the quick work of Formatech Inc., who manages the booth on our behalf for jumping into action and piecing it back together in 24 hours.

ACI Code Change Proposal for Tolerances in IBC 2018

ACI’s code change proposal is prompted by its revised statement “… American Concrete Institute (ACI) is a leading authority and resource worldwide for the development, dissemination, and adoption of its consensus-based standards, technical resources, educational & training programs, certification programs, and proven expertise for individuals…”

Although we support adoption of ACI committee documents, we do not believe ACI 117 or ITG-7 should be adopted into the 2018 International Building Code. We do not support this proposal because (1) the tolerances in ACI 117 and ITG-7 do not directly correlate with life-safety issues, and (2) it would have the unintended consequence of putting reinforced concrete construction at a disadvantage as competing materials do not have specific construction tolerance requirements in the IBC.
ACI 132-14 “Guide for Responsibility of Concrete Construction” states the design professional has the responsibility of including the effect of tolerances within the contract documents to ensure tolerance compatibility.

- **Section 5.3—Coordination:** “A lead licensed design professional has a responsibility to coordinate its services, including the effect of tolerances on other work, with that of other subconsultant licensed design professionals.”

- **Section 5.5—Contract documents:** “The licensed design professional is responsible for accommodating individual material, product, and element tolerances at their interface with concrete construction to ensure tolerance compatibility.”

Requiring the inclusion of ACI 117 and ITG-7 does not guarantee that these tolerances are compatible with the design or with elements or products interfacing with concrete construction and could be detrimental to the project. If the contract documents do not specify tolerances, it is likely there are other major issues on the project.

In addition, making the Code regulate tolerances through the use of ACI 117 and ITG-7 effectively eliminates the Mandatory Requirements Checklist. The 2018 Technical Committee Manual states that “The mandatory requirements checklist identifies information that is required to be included in Contract Documents because there is no default requirement in the specification”. A Code required use of ACI 117 and ITG-7 does not address the major issue of no default requirements.

We support ACI in wanting adoption of its standards and the concrete construction industry has adopted ACI 117 and ITG-7. We do not, however, support the ACI code change proposal to include tolerances in the 2018 IBC.

In addition to ASCC this position is supported by the Concrete Foundations Assn. (CFA), the Tilt-Up Concrete Assn. (TCA), the Concrete Reinforcing Steel Institute (CRSI) and the National Ready Mixed Concrete Assn. (NRMCA).

**Steel Post Shores**

Phil Diekemper, Safety & Risk Management Council

Steel Post Shores (SPS) are used by the hundreds on most Cast-In-Place projects by nearly all concrete contractors. Many of our workers handle SPS daily while shoring, stripping deck formwork, or reshoring.

Steel Post Shores are adjustable, heavy and strong. Today’s SPS are designed and manufactured better than ever. During my time in concrete shoring SPS have improved and are today’s shoring workhorse. Most are designed with telescoping tubes, with one slightly larger than the other. They are intended to be nested, allowing the total length to be modified for different working heights. They have shore pins that lock the telescoping tubes’ length as the SPS is prepared for use. The final length can be fine-tuned with a twisting screw handle for exact shoring heights.

There are many suppliers of SPS, each with unique design features. Safety hazards, however, still exist. Many workers aren’t aware of the proper SPS use, nor do they understand the hazards. For most companies the number one cause of hand injuries is the result of raising and lowering SPS while in a vertical position. This should **NEVER** be done. Workers often get their hand or fingers caught between the plate on the inner pipe and the loose pin or the handle attached to the outer pipe. When the shores are in a vertical position and collapsed with the pin removed, the top tube can come smashing down on a hand or fingers.

**THE KEY TO SAFETY:** When removing vertical shores, make sure the pin is set and spin the handle to loosen the shore. **NEVER** place your hand or fingers above the handle when lowering the shore. Once the shore is removed, the best practice is to lower the shore into a horizontal position prior to pulling the pin. Then adjust the shore length. **NEVER** remove the pin and allow the top of the shore to drop with the pull of gravity.

Hands or fingers can also be injured from the inner pipe collapsing when the pin (used to set the height) becomes dislodged. This can be resolved by securing the shore pin with a cotter pin, provided the manufacturer has provided a hole in the shore pin. If a cotter pin cannot be used, workers must make sure the pin does not fall out while handling.

Some SPS manufacturers have designed their inner tubes approximately 4” longer than the outer tube. This design provides an area above the outer tube for hand protection, below the base of the inner tube. However, it also allows the inner tube to contact the base plate of the outer tube when collapsed. If a worker has a finger in the base plate hole as they collapse the shore, even while in a horizontal position, they could lose part of the finger.

In addition, be careful of pinch points when handling and stacking the shores; always wear gloves when handling. When lifting, use good body mechanics and avoid awkward positions while placing or removing steel shores from their bundles to avoid back strain. SPS can be heavy and reaching toward a stack to lift can create back muscle strain. Find a stationary location to adjust shore lengths in a horizontal position before raising. Once in the vertical position, use the screw handle to establish final grade.

Train new workers how to properly handle SPS. Establishing good safety habits is essential to preventing hand injuries when a worker may be distracted. Use those good habits repeatedly and consistently.

- **NEVER** place one’s hand on the shore base plate, at either end. One could inadvertently stick a finger in the end of the shore resulting in a serious injury from the inner tube telescoping.
Another Level of Scrutiny to Ensure Crane Operator Qualification

Joe Whiteman, Director of Safety Services

A lot of time and effort has been spent over the last few years on the new crane ruling recently introduced in the construction industry. It is important to note first and foremost; full enforcement of this ruling has been postponed an extra 60 days -- beginning February 15th -- due to overwhelming industry response. This extension is intended to provide more time for companies to comply with portions of the new rule. OSHA noted “that during the extra 60 days, they will take into consideration good faith efforts put forth by companies attempting to comply with the documentation requirements of the rule.”

Overall, this rule was developed to combat ongoing crane incidents. Even though there is a requirement for operators to be trained and certified, crane-related incidents remain prevalent within our industry and OSHA concluded that not enough has been done to reduce those incidents. It was decided the existing certification requirements did not go far enough. The new rule seeks to further ensure that operators are also “qualified” to operate a specific type of crane. Crane specificity includes type, configuration, attachments, and type of work such as hoisting personnel, performing tandem lifts or performing lifts in the “blind.” Capacity has been removed as a requirement. An employer evaluation requirement has been added, along with requirements for evaluators. Lastly, the new rule modifies existing requirements for “operators in training.”

When you first dive into this new rule it can be a bit overwhelming. The first thing contractors need to do is understand how this rule applies to their operations. The question that needs to be asked is, “Do you directly employ crane operators?” If your operations require you to subcontract crane activities for both equipment and operator, you need to communicate with your crane service provider to assure they are performing evaluations and documentation. In some instances the evaluation may have to be performed on your site to encompass all criteria. If you directly employ the crane operator, or own or bare rent the crane, whether mobile or tower, your responsibility is increased.

The most challenging part of the new rule for contractors who directly employ crane operators is the evaluation provision. Not just the added step of the evaluation, but who is “qualified” to perform the evaluation. OSHA’s definition of a Qualified Person does not apply here. The objective of the evaluation is to ensure the operator has the skills, knowledge and ability to identify and avoid risk, ultimately safe operation of the crane. This process is designed to ensure the operator is familiar with the type of hoisting and physical environment, understands operational aids, safety devices, size and configuration, as well as the software specific to the crane. The requirements of the evaluators are that s/he be your employee or an agent, perhaps a third party testing agency, or, if applicable, an operator’s union representative.

The evaluator does not have to be certified or have passed the written crane operators’ exam. They must, however, have the training, experience and knowledge to assess crane operators. Since you may already employ crane operators, you could utilize your most senior operator to perform evaluations. Another source is your qualified riggers or signalmen. There are specific criteria to be covered in the evaluation and everything must be documented and maintained on-site including the operator’s name, date of evaluation, make, model and configuration of equipment, and the name of the evaluator. The Special Riggers and Carriers Association has a good document for both Mobile and Tower Cranes to properly evaluate the operators, equipment and operations.

Lastly, “operators in training” are those who have not been certified and/or evaluated. These individuals cannot operate the equipment without supervision and can only take on tasks within their ability. Until they are certified, the cannot perform near energized powerlines, multi-crane lifts, working over a shaft, in a tank farm or on a cofferdam. They must be monitored by a trainer when operating equipment. On May 8th ASCC will hold a webinar to help members understand and navigate this new rule. Now, with the extra time to comply, ensure your operators are certified, evaluated and qualified!