From PCI Headquarters

PCI to hold Silica Safety Workshop in Nashville

PCI will present a two-day workshop September 27–28, 2016, in Nashville, Tenn., on how PCI members can comply with the new Occupational Safety and Health Administration (OSHA) rules on crystalline silica.

The first day will be classroom instruction on the PCI written exposure control plan and Occupational Health Program (OHP). The second day will consist of field demonstrations at a local PCI producer facility, including instruction on exposure monitoring, chain of custody, laboratory issues, engineering and work practice controls, and respiratory protection selection. PCI's consultant, Adele Abrams, president of Adele L. Abrams PC, and her team will identify equipment manufacturers who have tools and processes to assist in compliance with the silica rule.

OSHA mandates that producers and erectors need at least one competent person per plant or jobsite who is proficient in all areas of the new standard. PCI and the PCI Silica Task Group recommend sending safety managers, operations managers, jobsite managers, and medical liaisons to the workshop.

The registration fee is $295 until September 5, 2016. After this date, the registration fee increases to $395. Registration includes a hard copy of the manual and OHP that can be reviewed by OSHA. To register, go to the Members Only section at www.pci.org. For more information, contact Jim Lewis at jlewis@pci.org.

Updated architectural precast concrete plant ideas available to members for free online

The 114-page *Collection of Ideas on Production of Architecture Precast Concrete*, APC-1-2015, originally published in 1998, was recently revised and reformatted.

It contains six chapters of production information and how-to explanations for architectural precast concrete plants. Chapters include "Production Practices," "Raw Materials and Accessories," "Concrete," "Reinforcement and Prestressing," "Quality Control," and "Product Tolerances." The free download is available to PCI members in the members-only section of www.pci.org under Technical Resources.

Holliday named executive director of PCI of Illinois & Wisconsin

Amy Holliday

On July 18, Amy Holliday started as the new executive director of PCI of Illinois & Wisconsin (PCI-IW). Amy has over 16 years of experience in the precast concrete industry, most recently in the sales division of Fabcon Precast in Savage, Minn.

After graduating from Dunwoody College of Technology in Minneapolis, Minn., Holliday began her career at Fabcon. She started there as an estimator and then moved into precast sales, where she worked with general contractors, architects, and engineers in her Twin Cities territory and retail clients across the nation. She recently relocated to Chicago, Ill., from Minnesota.

Holliday's responsibilities with PCI-IW include administration of the organization and marketing precast/prestressed concrete in both the buildings and transportation markets in the region. Holliday will promote the benefits of using precast concrete construction by connecting with architects, engineers, general contractors, owners, students and professors, city and county agencies, departments of transportation and tollway entities. Holliday will also host multiple opportunities to provide continuing education to the design community.

Reaching beyond the classroom with PCI Foundation programs

Marty McIntyre
PCI Foundation
Executive Director

When the PCI Foundation first started funding educational programs at schools of architecture, engineering, and construction management, the first goal was simply getting precast concrete into that program for that semester. The thought of reaching students beyond that initial program was beyond the hopes and dreams of those sponsoring the programs. And yet, that is exactly what has happened.

Although the PCI Foundation may only sponsor one specific class, the program reaches out far beyond those few students. As the precast concrete programs have developed, we have seen them grow "tentacles"—the precast concrete programs are influencing areas beyond the classroom.

Creating a professional community of professors

Recently I attended the final review of the student projects at the University of Michigan in Ann Arbor. I was happy to run into Brad Bell, who runs the PCI Foundation program at the University of Texas at Arlington. Professors have attended each other's programs almost since the beginning of the PCI Foundation programs. In addition, professors discuss their programs during the PCI Convention and National Bridge Conference. The best curriculum ideas rise to the top and are redeveloped in other classrooms.

Expanding beyond students in the sponsored classroom

One of the encouraging byproducts of the sponsored programs at schools of architecture, engineering, and construction management is that some of the events that happen as part of the PCI Foundation–funded programs are offered to other students in the school. We see this happening especially with plant and jobsite tours. Students in other classes are often invited along, and for many schools we are seeing that every student in the program is at least exposed to the precast concrete industry in this way.

Developing continuing education programs for professionals

Several of the professors running PCI Foundation–funded programs have looked for other ways to use their newfound knowledge to enhance professional education as well. When guest speakers are invited in for the class, community professionals are sometimes invited along. In some cases, precast concrete is added as a topic to a major program. At the University of Southern California in Los Angeles, professors Doug Noble and Karen Kensek worked with the local precast concrete industry to host several precast concrete building enclosure seminars.

Getting suppliers involved

The studio concept coupled with convention attendance leads to relationships that extend beyond the local producer level as professors get to know suppliers. We have seen students take plant tours of supplier associate member plants, such as Hamilton Form, and Ray Clark of US Formliner has provided classroom seminars on forming technology. Other suppliers have assisted with materials research for student projects. Professors who attend the PCI Convention and National Bridge Conference have had the opportunity to walk the trade show floor and learn more about the products used to fabricate precast concrete.

From left, Brad Bell of the University of Texas at Arlington, Marty McIntyre of the PCI Foundation, and Glenn Wilcox of the University of Michigan (U of M) were together to take part in the final review of the PCI Foundation–sponsored program at the U of M in Ann Arbor. Courtesy of PCI Foundation.

Adding precast concrete is to curriculum in other classes

Many of the professors teaching our courses have found that they would like students to have at least a basic familiarity with precast concrete prior to attending their first class. On several campuses, we have seen precast concrete added to the curriculum in courses on topics such as methods and materials—reaching beyond the students who take the precast concrete course.

Publishing about precast concrete

Professors have published articles in architecture magazines about their programs, spoken about them at professional conferences for architecture professors, developed book projects that focus on precast concrete, and even published an entire journal about precast concrete enclosures.

Offering a forum for integrated programs

Other unexpected results of our programs are the opportunities they have created for schools to offer integrated programs. More often than not, professors in schools of architecture and engineering don't know each other, even when they teach at the same school. Thanks to the work of some of our original programs, that has changed. Integrated programs that include more than one school at a university occur regularly as a result of our programs.

Expanding precast concrete research

Many of the professors we deal with have a research component to their duties, in addition to teaching. For many of the schools we are working with, that research has taken on new precast concrete topics. Precast concrete materials and methods, sustainability, and new products have all been part of research conducted by professors who have received PCI Foundation grants.

New PCI Gulf South chapter names Eckenrode executive director

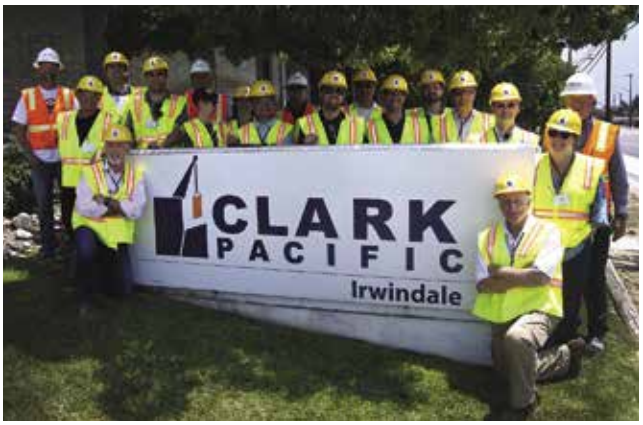
Dan Eckenrode

Dan Eckenrode has been named as the new executive director of the PCI Gulf South region, serving the states of Alabama, Louisiana, and Mississippi, starting June 16. Eckenrode has more than 13 years of experience in the precast concrete industry, most recently as the director of sales for Conewago Precast, a division of Conewago Enterprises Inc. in Hanover, Pa.

"PCI Gulf South is a newly formed chapter of PCI," says Johnnie Hayes, immediate past president of the PCI Gulf South region and senior sales representative at Forterra Structural and Specialty Products. "As such, we were looking for an executive director with knowledge of precast/prestressed concrete products and the desire to build an organization. We believe that Dan is perfect for this role. He has a lot of enthusiasm as well as the drive to move our chapter forward."

At Conewago Enterprises, Eckenrode was one of the original members of the precast concrete division team. He served in numerous roles during his tenure at the company, including operations manager, project manager, and director of sales/estimating. Prior to this, he was employed with CS Davidson Engineering in York, Pa., where he was involved in civil and municipal projects. Eckenrode has a bachelor's degree in psychology from Clarion University of Pennsylvania.

Eckenrode's responsibilities with PCI Gulf South will focus on increasing market share for precast concrete producer members in the building and transportation markets. He will work closely with the PCI Gulf South board to develop an appropriate marketing strategy and coordinate communication between producers and state departments of transportation. He will also provide continuing education opportunities to design professionals.



Fourteen professors, two regional directors, and six PCI associate and producer members spent three days learning about precast concrete at the PCI Foundation Professors Seminar in June in California. Courtesy of Doug Noble, USC.

PCI Foundation Professors Seminar educates precast concrete instructors

The PCI Foundation, along with PCI West and the University of Southern California (USC) in Los Angeles, sponsored the PCI Foundation Professors Seminar June 1–3, 2016, which gave 14 professors of architecture, engineering, and construction management instruction on teaching precast concrete programs. The professors, two regional directors, and six PCI associate and producer members spent three days both in the classroom and in the field participating in a program that included not just theory but also design, production, erection, and finished precast concrete projects.

Program speakers included PCI-certified plant personnel, architects from Los Angeles office of Gensler, professors from current programs, and a project owner representative from USC. The attendees visited the Clark Pacific plants in Irwindale and Fontana, Calif., where plant manager Brad Williams provided an in-depth tour. Next the group visited a finished precast concrete project, the Broad Museum, and heard about Willis Construction Co.'s fabrication of the veil of glass-fiber-reinforced concrete. On the last day, the group toured the site for the University Village project in Los Angeles that Coreslab Structures (LA) is fabricating.

Professors who attended the program were not only from schools where the PCI Foundation is currently active but also from schools interested in starting more robust precast concrete programs.

The next PCI Foundation Professors Seminar will take place in early January 2018. For more information, contact Marty McIntyre at the PCI Foundation at (708) 386-3715.

2016/2017 Jenny Research Fellowships announced

At the 2016 PCI Convention and National Bridge Conference meeting of the Research and Development Council, members reviewed 19 applications for the Daniel P. Jenny Research Fellowships. The quality of the applications was strong, and five were awarded for the 2016/2017 academic year. It has also become clear to applicants that producer support is necessary to be considered for funding, and PCI is grateful to the producer members who worked with the universities on their proposals. The following five projects and students were awarded fellowships.

Natalia Cardelino

Assessment of Limestone Blended Cements Used in Self-Consolidating Concrete: Natalia Cardelino

University: Georgia Institute of Technology

Faculty advisors: Kimberly Kurtis and Russell Gentry

Supporting producers: Tindall Corp., Conley, Ga., and Metromont, Greenville, S.C.

In her fellowship application, Cardalino says, "Combining my past work experience, including familiarity with precast concrete suppliers, and my current research interests will enable me to produce industry-relevant research that enhances our knowledge of concrete materials science."

Meghan McCutcheon

Precast Segmental Cylinder Piles with Corrosion Resistant Transverse Reinforcement: Meghan McCutcheon

University: North Carolina State University

Faculty advisor: Gregory Lucier

Supporting producers: Bayshore Concrete Products Corp., Cape Charles, Va., and AltusGroup, Greenville, S.C.

In describing her interest in this project, McCutcheon says that "the tangible outcomes from this research that could benefit precast concrete fabricators and project owners are very exciting. The practical benefits of our proposed research and the direct involvement with industry further motivate my interest in this project."

Carolina Boscarino

Economical Thermal-Mechanical Precast Concrete Systems Comprised of a Polymerized Sandwich Structure: Carolina Boscarino

University: University of Alabama at Birmingham

Faculty advisor: Thomas Attard

Supporting producer: Tindall Corp., Spartanburg, S.C.

Boscarino expressed a strong interest in this work and says, "I feel the amazing benefits of [carbon-fiber-reinforced hybrid-polymer matrix composite (CHMC)] to the precast concrete industry and to civil engineering society in general—along with my own personal amazement with [polymerized sandwich structures] and how this research proposes to include CHMC into it—provide me with a one-of-a-kind opportunity to invest in my future as a future civil engineer interested in precast concrete."

Otgonchimeg (Audrey) Davaadorj

Shear Stress Transfer across Steel to Concrete Interfaces and Effects of Dowel Action: Otgonchimeg "Audrey" Davaadorj

University: University of Washington

Faculty advisor: Paolo Calvi

Supporting producer: Metromont, Greenville, S.C.

Davaadorj recognizes the importance of the industry. She says, "Through the research project I hope to learn more about the precast and prestressed concrete industry, which I am passionate about the most within the structural engineering field."

Puneet Kumar

A Framework for Performance-Based Fire Design of Precast, Prestressed Concrete Structures: Puneet Kumar

University: Michigan State University

Faculty advisor: Venkatesh Kodur

Supporting producers: Kerkstra Precast, Grandville, Mich., and Coreslab Structures (Indianapolis), Ind.

Kumar says of his future in his proposal, "While working in design I would further promote prestressed concrete over other options due to its versatility and durability in the civil infrastructure."

Risk management course created at Minnesota State Mankato with PCI Foundation grant

As part of the school's grant from the PCI Foundation, Mohamed Diab, a professor at Minnesota State University, Mankato, has developed a new course on risk management that focuses on precast concrete. The course provides an overview of risk management, specifically risk associated with different ages of a project life cycle. Students study an overview of risk analysis and identification, risk assessment, and risk mitigation. Much of the semester focuses on the construction of precast concrete projects, including managing quality and inspection procedures. Construction installation techniques that could minimize construction risks and improve project cost and schedule performance are also covered.

Class activities have included student group activities and discussion, presentations from Wells Concrete professionals, and undergraduate student research projects.

Wells Concrete in Maple Grove, Minn., sent several visiting lecturers to the class, including Tammy Ferenz, construction service coordinator; Eric Edstrom, field operations manager; Josh Evan, field engineer; and Gary Pooley, sales manager. They shared their experiences and best practices in precast concrete construction and presented a number of diagrams and charts for crane utilization and mobilization. They also used project photos to facilitate the understanding of materials.

Amro Sallam, executive director at Architects for Society, presented his design collaboration work with a Swiss design firm to develop the concept and documents for the Orientalist Museum, which is situated on a manmade island off the coast of the Persian Gulf and has an estimated budget of $360 million. Sallam presented the creative solution of the design concept using Revit software to develop different levels of building information modeling (BIM). BIM was used as an important tool to facilitate the manufacturing and installation plans of the precast concrete construction components in this project. His discussion highlighted the significance of selecting precast concrete as the construction method to produce this high-quality and complex project.

Curtis Olson, left, a construction management student from Minnesota State University, Mankato, presented the early findings of his group's risk management research at the 2016 PCI Convention and National Bridge Conference in Nashville, Tenn. He is accompanied by professors Farhad Reza, center, and Mohamed Diab, right. Courtesy of Marty McIntyre.

Students were also asked to explore a precast concrete–related topic to research and present in the annual Undergraduate Research Symposium at Minnesota State, Mankato. Ten of the twenty-four students enrolled in this class decided to work on this assignment and, in teams of five, developed two posters of their findings to present at the symposium. One team researched the impact of using precast versus cast-in-place concrete to reduce the overall cost and time in cold weather, especially between 0 and 40°F (–18 and 4°C). The second team researched the significant time savings of using precast concrete to construct the foundation walls for buildings.

2016 PCI Design Awards Call for Entries

>> The PCI Design Awards program recognizes design excellence and construction quality using precast concrete. Be a part of the search for excellence and submit your project today.

PCI's 2016 Design Awards submission site is open. Visit http://www.pci.org/About_PCI/Awards/PCI_Design_Awards/ for complete information, including this year's categories and submission guidelines, or to make a submission.

Entries are accepted in two primary categories: buildings and transportation structures. In addition to buildings and transportation, there are special awards categories: the Harry H. Edwards Industry Advancement Award, the All–Precast Concrete Solution Award, and the Sustainable Design Award.

October 3, 2016, is the submission deadline, and winners will be announced November 18, 2016.

All winning projects will be showcased at the 2017 PCI Convention and National Bridge Conference at The Precast Show in Cleveland, Ohio, and will be included in a supplement to *PCI Journal* and in articles in *Aspire* and *Ascent*.

For more information, contact Dawn Parker at (312) 360-3216 or dparker@pci.org or Brenda Banks at marketing@pci.org.

2017 PCI construction market forecast released

The latest PCI construction forecast presentation, updated in June 2016, is now available. PCI members can access the forecast under Marketing Resources in the members-only section of PCI's website. Based on several sources of national data, construction forecast information is designed to help PCI and PCI members understand what direction the construction industry is headed.

New precast concrete job website features industry opportunities

PCI has launched Precast Careers, a site dedicated to showcasing career opportunities in the precast/prestressed concrete profession. The site is at http://www.pci.org/News_And_Events/Precast_Careers/Precast_Careers/. PCI intends for the Precast Careers site to become the go-to job resource for the precast/prestressed concrete field. The site includes positions in operations management, project management, sales and business development, engineering, drafting, estimating, and a myriad of other careers within the precast/prestressed concrete industry.

PCI members may also post open positions to the Precast Careers site to find industry talent. Contact Rebecca Coleman at bcoleman@pci.org for more information.

Board of Directors works on key items during summer meeting

The PCI Board of Directors met June 11, 2016, in Spokane, Wash., for its summer meeting. The board took action on several important items:

- It approved a balanced budget for fiscal year 2016–2017 beginning July 1, 2016. The budget included resources for the priorities identified at the CEO Summit in fall 2015, including training resources for plant personnel, marketing, and research into innovative products to help grow the industry.
- The annual meeting of the PCI membership, required by the PCI bylaws, and election of the PCI Board Directors and officers will now take place at the PCI Convention and National Bridge Conference. New board and officer terms will begin following the convention instead of January 1.
- A new definition of the services associate membership category and corresponding dues structure were approved.
- Policy 28 was revised to reflect future certification of plant auditors.

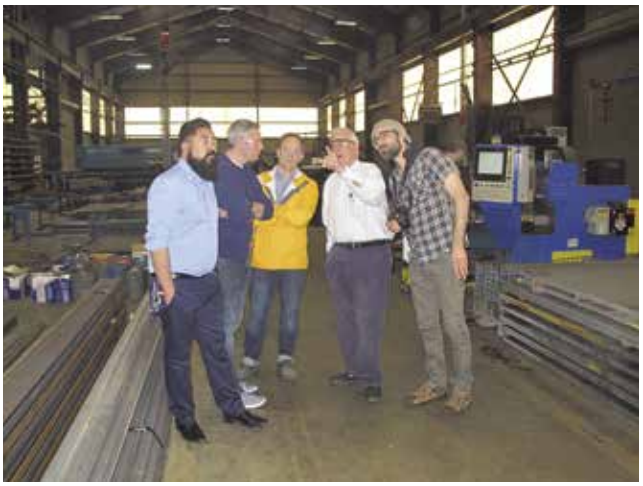
Following the success of the joint PCI Convention and National Bridge Conference and The Precast Show in Nashville, Tenn., in 2016, the board unanimously approved continuing the partnership through 2021.

Texas PCI Foundation students visit Hamilton Form

The PCI Foundation–sponsored studio at the University of Texas at Arlington recently visited Hamilton Form in Fort Worth, Tex. The students and their professor, Brad Bell, met with the Hamilton Form engineering staff and toured the plant. The group gained insights into the form-making process and learned more about the precast/prestressed concrete industry. Bill Daily, president of Hamilton Form, led the tour and answered student questions.

Encouraging students to have one-on-one contact with PCI producer and associate members during their studies is a vital part of the PCI Foundation program. For more information on the PCI Foundation, visit the website at pci-foundation.org.

Compiled by K. Michelle Burgess (mburgess@pci.org)



Professor Brad Bell (in yellow) and several students from the PCI Foundation–sponsored studio at the University of Texas at Arlington recently visited Hamilton Form in Fort Worth, Tex. Courtesy of Marianne Methven of Hamilton Form.

PCI Calendar

Events

For the most current information on PCI events, visit http://www.pci.org/events. For industry events, visit http://www.pci.org/news/events.

PCINE Annual Meeting Saybrook Point, Old Saybrook, Conn.	September 13–14, 2016
PCI Silica Safety Workshop Nashville, Tenn.	September 27–28, 2016
2016 PCI Committee Days and Membership Conference Loews Chicago O'Hare, Rosemont, Ill.	October 12–15, 2016
PCI Productivity and Quality Improvement Tour Phoenix, Ariz.	November 1–4, 2016
PCI Mountain States Region Board of Directors and General Membership Meeting TBA	November 16–17, 2016
2017 PCI Convention and National Bridge Conference at The Precast Show Cleveland, Ohio	March 1–4, 2017
2017 PCI Committee Days and Membership Conference Rosemont, Ill.	October 4–7, 2017
2018 PCI Convention and National Bridge Conference at The Precast Show Denver, Colo.	February 20–24, 2018

PCI personnel training and certification schools

If you have any questions about the Quality Control School schedule or need help completing a registration form, please contact PCI's education manager, Sherrie Nauden, at snauden@pci.org or (312) 360-3215. Registration forms are available at http://www.pci.org/schools.

Level I/II	December 5–7, 2016	Nashville, Tenn.
Level III	December 7–10, 2016	Nashville, Tenn.
CFA	December 5–7, 2016	Nashville, Tenn.
CCA	December 8, 2016	Nashville, Tenn.