

INDUSTRY NEWS

PCI Technical Committee News

Committee Days 1986. Committee Days was expanded, this year, to three days of meetings for 30 different committees. Approximately 200 committee members came to the Holiday Inn O'Hare/Kennedy, outside Chicago, for participation in the work of their respective committees. PCI wishes to thank all those that came for their time, enthusiasm, and valuable input.

Featured this year at two of the luncheons was a mind-challenging presentation on the feasibility of manufacturing concrete on the moon for lunar base structures. **Dr. T. D. Lin**, of the Construction Technology Laboratories, Portland Cement Association, has obtained NASA's interest in the concept and, with their co-operation, prepared a most interesting slide presentation outlining the concept.

At the Wednesday luncheon, Certificates of Merit were awarded to the members of two committees: to the Erectors Committee for its work in developing and publishing a "Recommended Practice for Erection of Precast Concrete"; and to the Hollow-Core Slab Producers Committee for developing and publishing the "PCI Manual for the Design of Hollow Core Slabs."

Of the total committees meeting at Committee Days, 13 of 17 Technical Committees met and made excellent progress toward meeting their 1986 goals. Status of some of these committees is as follows:

The Committee on Connection Details (**Edward R. Sturm**, chairman) had a concurrent review by the committee and by TAC of a draft of its updated "Manual on Design and Detailing of Connections for Precast and Prestressed Concrete." Review comments were discussed and plans made to incorporate all changes into a final

draft and to work toward early publication of the Manual. The committee also discussed possible speakers and topics for a session at the PCI Convention this fall on the new developments in connection design that are included in the Manual.

The Committee on Research (**A. Fattah Shaikh**, chairman) received 14 proposals for 1986-87 Research Fellowships and completed its review and selection at its meeting during Committee Days. Research Fellowships will be placed at: The University of Texas at Arlington for "Minimum Prestress Level for Prestressed Concrete Columns," to be guided by Professor **Robert L. Yuan**; The University of Arizona for "A New Approach for Design of Moment Resistant Beam-Column Connections," to be guided by Professor **Mohammad R. Ehsani**; and Iowa State University for "Diaphragm Action of Hollow-Core Slab Systems Subjected to Lateral Loading," to be guided by Professor **Carl E. Ekberg**. In addition, the committee is reviewing a research statement on "Precast, Prestressed Concrete Horizontally Curved Bridge Beams" prior to sending out requests for proposals for this research study.

The Committees on Precast, Prestressed Concrete Storage Tanks (**Maier K. Tadros**, chairman) and Parking Structures (**Thomas J. D'Arcy**, chairman) both had draft reports that were being reviewed for final changes prior to conducting committee ballots for approval.

The Committee on Precast Sandwich Wall Panels (**Joseph D. Kelleher, Jr.**, chairman) intends to send a questionnaire to all producers similar to a questionnaire that provided good input for the committee in 1980. Details of the questionnaire were decided and the mailing will follow in a few weeks.

The Seismic Committee (**Douglas P. Clough**, chairman) had two topics for dis-



A beaming President Reagan presents Dr. T. Y. Lin the prestigious 1986 National Medal of Science Award.

T. Y. Lin Receives National Medal of Science

T. Y. Lin, board chairman, T. Y. Lin International, San Francisco, California, was recently awarded one of the 1986 National Medals of Science by **President Reagan** during White House ceremonies. Dr. Lin was cited "for his work as an engineer, teacher and author whose scientific analyses, including innovation and visionary designs, have not only spanned the gulf between science and art but also between technology and society."

Upon receiving the prestigious award, Dr. Lin handed the President a 16 page brochure, with a map on the cover, outlining his proposal for a 50 mile (80 km) bridge over the Bering Strait from Alaska to Siberia. "It will solve all your budget problems."

The illustrated brochure said the bridge was not an impractical dream and that it would lead to increased commerce and tourism between the United States and the Soviet Union, breaking down barriers and

improving communications between the two peoples. The brochure also estimated the cost of the bridge at approximately \$1 billion.

Most noted for designing Rio Colorado's inverted arch bridge and the Moscone Convention Center in San Francisco, Dr. Lin is the recipient of numerous awards for his projects from several organizations including the PCI.

Congress established the National Medal of Science in 1959 to be awarded by the President to individuals deserving of special recognition by reasons of their outstanding contributions to knowledge in the physical, biological, mathematical or engineering sciences. In 1980, Congress expanded this recognition to include the social and behavioral sciences.

Since its establishment, the National Medal of Science has been awarded to 205 distinguished scientists and engineers.



Members of the PCI Erectors Committee received Certificates of Merit at Committee Days for their efforts in developing and publishing a *Recommended Practice for Erection of Precast Concrete*. Committee members are (back row from left): **Michel Belanger**, Prefac, Div. of F.L. Metal Inc., Town of Mount Royal, Quebec; **Sid Freedman**, Director, Architectural Precast Concrete Services, Prestressed Concrete Institute; **Tony Walton**, Genstar Structures Ltd., Vancouver, British Columbia, for **Harold Nash**, also with Genstar Structures; **Mickey Pickell**, Pomco, Inc., Palmetto, Florida.

Front row from left: **Clyde Quick**, Quick Erectors, Inc., St. Louis, Missouri; **Frank Wilhelm**, Pre-Con/Schokbeton, Inc., Kalamazoo, Michigan.



Members of the PCI Hollow-Core Slab Producers Committee received Certificates of Merit at Committee Days for efforts in developing and publishing the *PCI Manual for the Design of Hollow-Core Slabs*. Committee members are (back row left to right): **John B. Henry**, committee chairman, Price Brothers Co., Dayton, Ohio; **John S. Ink**, Genstar Structures Ltd., Calgary, Alberta; **Edward J. Gregory**, Material Service Corp., Chicago, Illinois, for **Robert Hubbard**, also with Material Service; **Sid Freedman**, Director, Architectural Precast Concrete Services, Prestressed Concrete Institute; **James R. Gaston**, Arnold Concrete Products, Greensboro, North Carolina; **David W. Hanson**, Fabcon Inc., Savage, Minnesota.

Front row from left: **Milo J. Nimmer**, Spancrete Machinery Corp., Milwaukee, Wisconsin; **James R. Byram**, Capitol Prestress, Jacksonville, Florida; **Albert R. Engstrom**, Dy-Core Systems, Inc., Marietta, Georgia; **Edward C. Gloppen**, Dur-O-Wal, Inc., Northbrook, Illinois.

New Appointments to PCI Technical Committees

The following individuals have recently accepted appointments to PCI Technical Committees. We appreciate their interest and voluntary participation.

- *Committee on Bridges:*

Bernard F. Kotalik

Prestressed Concrete Association
of Pennsylvania
Camp Hill, Pennsylvania

- *Committee on Seismic:*

David A. Sheppard

Lafayette Manufacturing, Inc.
Hayward, California

- **James K. Iverson**

The Consulting Engineers

Group, Inc.

Napa, California

- *Committee on Connection Details:*

James R. Voss

JVI, Inc.

Skokie, Illinois

Alex Aswad

Stanley Structures

Denver, Colorado

C. E. "Joe" Warnes

Splice Sleeve North America
Sacramento, California

cussion: the "Recommended Practice for Seismic Design," going over those portions that were completed and making further assignments to complete the missing portions and the PCI Convention seminar or workshop, considering format, speakers and topics. The committee agreed to the workshop format and the final suggested program will be reviewed by a task group of the Prestressed Concrete Manufacturers Association of California prior to sending invitations to the speakers. The committee received information that the U.S.-Japan Seminar on Precast Concrete in Seismic Zones is now scheduled for October 29-31, 1986 in Tokyo. A number of committee members will be involved in this international seminar.

The Committee on Prestressed Concrete Columns (**Donald F. Meinheit**, chairman) had its final committee report, "Recommended Practice for the Design of Prestressed Concrete Columns and Walls," reviewed both by the committee and by TAC. All comments received were carefully reviewed and decisions made for appropriate changes to the report. The goal is still to have the report ready for

publication in 1986.

The Industry Handbook Committee (**Leslie D. Martin**, chairman) was chaired by **Roger Becker** in Martin's absence. Prior to the meeting, the committee had received a first draft of a proposed commentary or discussion on the PCI Design Handbook, Third Edition, covering primarily those sections that had new material or significant changes over that in previous editions of the Handbook. Decisions were made on which to base a second draft, which would probably be submitted for final committee review and ballot.

The Committee on Bridges (**Donald Goldberg**, chairman) had three reports out for ballot: "Precast, Prestressed Concrete Bridge Deck Panels," "Review of AASHTO Guide Specifications for Seismic Design of Highway Bridges, 1983," and proposed "Standard for Prestressed Concrete Bulb-Tee Beams for Highway Bridge Spans to 144 Feet." Comments received during the balloting were discussed and decisions made relative to the next steps for these committee reports. Other items for discussion included the status of a proposed report on spliced girders, possible topics for a Convention session on

bridges, and topics relative to prestressed concrete scheduled for discussion at the regional meetings of the AASHTO Subcommittee on Bridges and Structures.

Call for Entries

Entries are being accepted for the 1986 Concrete Buildings Award Program sponsored by the Portland Cement Association of Skokie, Illinois. The awards will be presented at the Third International Forming Conference scheduled for November 1986 at the Westin Galleria Hotel, Dallas, Texas.

Concrete Buildings of all types completed in the United States and Canada between September 1984 and September 1986 are eligible for judging. Materials used may be cast-in-place concrete, precast concrete, concrete block, or other concrete products. Entries must be submitted by September 30, 1986.

Entry forms are available from Glen Simon, Portland Cement Association, 5420 Old Orchard Road, Skokie, Illinois 60077. Telephone: 312/966-6200.

Clayton Elected President Architectural Precast Association

William J. Clayton, High Concrete Structures, Denver, Pennsylvania, was elected president of the Architectural Precast Association at the organization's annual convention in March. Mr. Clayton's involvement in APA has been extensive and prior to his election to the presidency, he served as director, secretary-treasurer, and vice president.

He attended LaSalle College and Temple University before embarking on a career in the concrete industry. He has been associated with High Concrete Structures for 16 years and has prior experience with Giant Portland Cement Company. Mr. Clayton has also served on the board of directors for Lancaster Lime & Stone Company, Kurtz Brothers Concrete, Inc., Kertz Transportation, Inc., and Kurtz Precast Corporation.

In addition to Mr. Clayton's appointment

as APA president, the association membership has elected the following persons to serve on the executive committee: Fred A. Miller, Columbus Precast, Columbus, Georgia, has been elected to serve as vice president and Raul Diago, Stresscon, Hialeah, Florida, has been elected to serve as secretary-treasurer.

FDOT Tests New Bulb T Girder

Florida's Department of Transportation recently tested what is believed to be the largest girder ever in an effort to win acceptance of a new, more economical bulb tee concrete bridge girder. The department staged a test to failure of a pair of 145 ft (44 m) girders prestressed to form a continuous 290 ft (88.4 m) two span member. Engineers claim that the test was the most expensive evaluation yet on the design concept.

The girders tested have a 72 in. (1828.8 mm) web, 74 in. (1879.6 mm) wide top flange and a 30 in. (762 mm) wide bottom flange shaped somewhat like a bulb. The new configuration has a slimmer web and wider, thicker top flange than current bulb tee designs which have been used over the past 20 years. The new design gives the bulb tee greater lateral stability than the standard I girders, thus making them easier to handle.

The new bulb tees are prestressed in three stages. During casting, they are prestressed to carry their own weight. Once placed, the girders are post-tensioned to make them continuous. Then, after the deck is poured, tension is increased on the composite section.

The Federal Highway Administration wanted the FDOT to conduct tests and use the new bulb tees for a bridge on one of its own routes. They will be installed on a bridge at Eau Gallie with four 145 ft (44 m) continuous spans. The 90 ft (27.4 m) wide structure will have nine girders, three less than would be required using an I girder design.

The bridge contract included running the



Prestressed bulb tee is loaded to failure in what is believed to be a test of the largest such girder ever.

test at the prestressing yard of the girder's manufacturer in Jacksonville, Florida. The 72 ton (66 t) continuous girder had 95 tons (85 t) of weights distributed on it. A pair of steel yokes with hydraulic jacks pulled down on each girder, exerting a total of 480 tons (430 t) of force on the two spans.

Failure occurred at 1.3 times dead load plus 5 times design live load and was concentrated at the center of the beam. According to engineers, it was an elastic failure, not sudden. And, in the unlikely event that the girder ever were loaded to such an extent, not only would there be sufficient warning, but shearing would not occur. There were no localized fractures.

The 290 ft (88.4 m) girder is the longest prestressed, post-tensioned beam ever tested.

Gifford-Hill Acquires American Admixtures

Gifford-Hill & Company, Inc., Dallas, Texas, and American Admixtures and Chemical Corporation, Chicago, Illinois, have announced the signing of an agree-

ment for the purchase of the assets of American Admixtures by Gifford-Hill. American Admixtures and Chemical Corporation is a wholly-owned subsidiary of SKW Trostberg AG, Federal Republic of Germany.

The Chicago-based operation will continue as American Admixtures, Inc., a wholly-owned subsidiary of Gifford-Hill. The company's chemical division, which will operate American Admixtures, currently has plants in Charlotte, North Carolina, Dallas, and Salt Lake City, Utah.

Lone Star Elects New President

Lone Star Industries, Inc., Greenwich, Connecticut has announced that **William M. Troutman** has been elected president and chief operating officer - domestic operations following the resignation of Robert F. Klizer.

Mr. Troutman joined the company in 1983 and had been chief operating officer and executive vice president. Prior to joining Lone Star, he was with Medusa Corpo-

ration, holding various executive positions. A graduate of Cornell University, he holds a bachelor's degree in industrial and labor relations and has a law degree from the University of Michigan.

In addition, Lone Star has also announced that Ronald L. Blick, president of the company's pacific region, has been elected senior vice president. He will transfer to corporate headquarters to work directly with Mr. Troutman.

Mr. Blick has also spent his entire career in the construction materials industry holding various executive positions at Vulcan Materials Corporation and Material Service Corporation.

Cowger Joins Figg & Muller

H. Eugene Cowger has been named director of quality control and specifications for Figg and Muller Engineers, Inc., Tallahassee, Florida. He will be in charge of

the firm's specifications and special provisions to assure uniformity for all bridge design. Also, he will handle quality control and assurance procedures for all contract documents.

A graduate of the University of Illinois, Mr. Cowger has a bachelor's degree in civil engineering, with high honors. Prior to joining Figg and Muller, he was engineering director of the Florida Limerock and Aggregate Institute. During that period he also served as chairman of the State Arbitration, a panel which resolves disputes arising out of Florida Department of Transportation construction contracts.

From 1954 until 1983, Mr. Cowger was employed in the Division of Construction, Florida Department of Transportation. His responsibilities increased from project engineer to positions in the Bureau of Construction in Tallahassee. From 1979 until his retirement from state government, he was state construction engineer.



This prestressed concrete bridge being built over the Main River as part of a West German high speed rail network is reportedly setting a world record for the longest superstructure launched incrementally from one side. The Veitshöchheim Bridge cuts diagonally across the valley between two tunnels on the northern outskirts of Würzburg. By the time the last of 48 segments is cast, engineers will be pushing an unprecedented 4,143 ft (1268.8 m) of deck girder, weighing 40,000 tons (36,288 t) over teflon bearings atop 28 piers. Above: Long girder launch passes over arch as cables restrain river piers against jacking forces.