



# **NCPWB**

National Certified Pipe Welding Bureau

## **2017 NCPWB Spring Technical Committee Meeting**

**April 23—26, 2017**

**Hyatt Regency Hill County • San Antonio, Texas**

# Conference Highlights

## Monday, April 24

### **Topic: Best Practices for Brazing Copper and Copper Alloy Joints for High-pressure HVACR Applications**

Dale L. Powell of the Copper Development Association will provide pertinent installation information and critical steps required for the on-site fabrication of high-pressure, trouble-free brazed joints using copper and copper alloy tubes and fittings. Information will delve into the science behind copper alloy brazing and will also cover installation data related to brazing new copper iron alloy tubes and fittings.

Dale is a Project Manager and Piping Applications Specialist for Copper Development Association, Inc. (CDA). CDA is a not-for-profit trade association that serves as the advanced market development and engineering services arm of the copper and copper alloy industry in the United States.

### **Topic: Using Advanced GMAW (Mig) in the Field**

James Byrne of Miller Electric will discuss the use of GMAW (Mig) in the field and how it is different from the traditional processes SMAW (stick) and GTAW (tig) previously used in field welding. Mig equipment introduces many variables that can affect the condition of the weld. He will explain how those variables (different tip sizes, tip types, nozzles, wires, gun angles, gas selections, gas flow, wire sizes, drive roll alignment, drive roll tensioners, etc.) can affect the condition of the weld and how a welder can manage those variables.

James is the Manager of Sales and Applications, Pipe Welding Products, Miller Electric Mfg. Co. He was with General Electric Medical Systems in Research and Development with (MRI) Magnetic Resonance Imaging systems for five years. He has been with Miller Electric for 32 years as Service Manager, Inside Sales Manager, Training Manager, and is currently Manager of Sales and Applications for Pipe Welding Products.

## Tuesday, April 25

### **Topic: Addressing Welding of Grade 91 (9Cr-1Mo-V) Chromium-Molybdenum Steel's Challenges**

Mr. Charles W. "Pat" Patrick will explain how the gas tungsten-arc welding (GTAW) process can produce welds of high quality; however, manual welding is extremely expensive and labor-intensive, requiring skilled welders with extreme hand-to-eye coordination and dexterity. TIP TIG has changed how P91 can be welded for either shop or field fabrication by introducing a semiautomatic GTAW hot wire welding system. TIP TIG's system is cost-effective and can be used for the entire weld from root to cap while producing high quality welds that the industry expects from the GTAW process. Charles will talk also about power piping systems using Grade 91 materials and will explain the reason for low impact values of weld metal produced by some semiautomatic hot wire processes. He will explain how the dynamics of the weld pool during deposition and the heat flow during solidification play an important role in the resulting mechanical properties of the weld metal.

Charles will also talk about the results of a study that shows that the TIP TIG semiautomatic GTAW hot wire welding system is capable of producing impact values comparable to or exceeding manual GTAW and that the process provides an attractive alternative for welding P91 root and hot passes or the entire weld from root to cap.

Charles is a Director of Technical Services, ALS Maverick Testing Laboratories, Inc. His technical expertise spans 54 years of welding, engineering and consulting on major projects, both domestically and internationally.



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# Conference Highlights

## Tuesday, April 25 (continued)

### **Topic: History of the Pipe Fabrication Institute Standards and How to Use Them**

In this session, **Ned T. Hawkins**, Corporate QA/QC Director with W. Soule & Company, will present the history of pipe fabrication standards and will demonstrate how the standards are used. He also will discuss PFI's membership and meeting structures.

Ned is the Corporate QA/QC Director with W. Soule & Company in Kalamazoo, Michigan and is Chairman of the PFI Engineering Committee. He has 32 years of pipe, boiler and tank fabrication and installation experience.

### **Topic: Ins and Outs of Pipe Welding and Inspection**

**Walter Sperko** will cover topics on the ins and outs of pipe welding and inspection that will include the following topics:

- How good do piping system welds really need to be?
- Welding issues
- Welding process issues
- Taking advantage of welding technology
- Ensuring weld quality
- Dealing with the paperwork
- Inspection
- Fixed vs. random examinations
- Death clauses
- Customer specifications/contract issues
- Test

Walter is the CEO of Sperko Engineering and has served as the NCPWB consultant for over 30 years.

## **NCPWB Spring Technical Committee Meeting Conference Agenda**

### **Sunday, April 23**

6:00 pm—7:00 pm      Welcome Reception  
7:00 pm—8:00 pm      Welcome Dinner

### **Monday, April 24**

7:00 am—8:00 am      Breakfast  
8:00 am—12:00 pm    Technical Meeting  
Afternoon              Golf or at leisure

### **Tuesday, April 25**

7:00 am—8:00 am      Breakfast  
8:00 am—12:00 pm    Technical Meeting  
Afternoon              Golf or at leisure

### **Wednesday, April 26**

7:00 am—8:00 am      Board of Trustees Breakfast  
8:00 am—Noon        Board of Trustees Meeting





# 2017 NCPWB Spring Technical Committee Meeting

Hyatt Regency Hill Country ■ San Antonio, Texas

April 23: Welcome Reception and Dinner

April 24-25: Technical Committee Meeting

April 26: Board of Trustees Meeting



## Attendee Information

Attendee Name \_\_\_\_\_ Badge Name \_\_\_\_\_  
 Spouse/Guest Name \_\_\_\_\_ Badge Name \_\_\_\_\_  
 Company Name \_\_\_\_\_ Title \_\_\_\_\_  
 Street Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 \*Registrant's E-mail \_\_\_\_\_ Cell Phone \_\_\_\_\_

\*Please note: E-mail address is required. All agendas and minutes will be sent electronically only.

Registration Type	Quantity	Fees
Primary Registrant		\$ 700
Spouse/Guest (18 years of age and older)		\$ 150
Child (17 years of age and younger)		\$ 60
<b>Total Due</b>		<b>\$</b>

**MCAA Cancellation & Refund Policy**  
 If it becomes necessary to cancel your participation in the conference, please send **written** notification to MCAA as soon as possible. Please note the following refund information:

- Substitutions are always accepted.
- You will receive a full registration refund if you cancel by **March 27, 2017**. Cancellations after this date will be handled on a case-by-case basis.

**Check (payable to MCAA)**                       **AMEX**                       **MC**                       **VISA**

Account Number \_\_\_\_\_ Expiration \_\_\_\_\_  
 Cardholder Name \_\_\_\_\_ Billing Zip Code \_\_\_\_\_  
 Signature \_\_\_\_\_

## Golf Information

Golf will be played on the Hill Country Golf Club on Monday, April 24<sup>th</sup> and Tuesday, April 25<sup>th</sup> at the rate of \$155/player. **Fees will be charged to the credit card provided for your meeting registration.** If you must cancel golf, you need to do so by **April 7, 2017, or you will be charged the fee.** Please check the appropriate boxes below. Rates include greens fees, a round of 18 holes, shared cart rental and bag storage. Specific course assignment subject to change based on conditions and maintenance schedules. Rental clubs are \$65 plus 8.25% tax that will be charged by the Golf Club.

**Monday Golf**                       I will be playing                       My spouse/guest will be playing                       Lefty                       Righty  
**Tuesday Golf**                       I will be playing                       My spouse/guest will be playing                       Lefty                       Righty

I would like my foursome to include: \_\_\_\_\_

## Hotel Registration

Room Type	Room Rate	King Bed	Two Beds
Standard Room	\$229*		

\* The Guest Room Rates are quoted exclusive of applicable state and local taxes (which are currently 16.75%), applicable service fees, and/or Hotel-specific fees in effect at the time of the event.

Arrival Date \_\_\_\_\_ Departure Date \_\_\_\_\_  
 Hyatt Gold Passport Number \_\_\_\_\_ Sharing Room With \_\_\_\_\_  
 Do you have any special hotel requirements? \_\_\_\_\_

♻ Please contact MCAA Meetings Department at 1-301-869-5800 if you require special accommodations to fully participate in this event.

## Rooms at the Group Rate Are Subject to Availability

Reservations are made on a first come, first served, space available basis upon payment of meeting registration fee. A deposit in the amount of the **one night's** rate and tax is necessary to confirm your reservation. Cancellations within **10 days of arrival** may result in forfeiture of deposit. MCAA does not guarantee a room at the Hyatt Regency Hill Country or at the group rate for registrations received after March 27, 2017. Check-in is 4:00 p.m. and check-out is 12:00 noon.

**Check (payable to Hyatt Regency Hill Country)**                       **AMEX**                       **MC**                       **VISA**

Account Number \_\_\_\_\_ Expiration \_\_\_\_\_  
 Cardholder Name \_\_\_\_\_ Billing Zip Code \_\_\_\_\_  
 Signature \_\_\_\_\_

**Register online at [www.mcaa.org/education](http://www.mcaa.org/education)**  
 If you have questions, please contact the MCAA Meetings Department:

- By phone: (301) 869-5800
- By e-mail: [eventregistration@mcaa.org](mailto:eventregistration@mcaa.org)
- By fax: 1 (240) 238-2699
- By mail: Meeting Dept., 1385 Piccard Drive, Rockville, MD 20850

Our business hours are 9:00 am–5:00 pm, Eastern Time, Monday—Friday.