



# American Welding Society Pittsburgh Section

OCTOBER 23, 2025

SPARK UPDATE

2025/2026 NUMBER 2

## Chairman's Announcement

The Pittsburgh AWS Section is proud to present a full line up of plant tours and technical presentations for its members for the 2025– 2026 year.

I hope that you will find these scheduled meetings of interest and plan to attend. If you have any ideas for our chapter or suggestions for a future meetings or plant tours, please contact any of our Board members.

Thank you,

Huck Hughes - Chairman, Pittsburgh AWS

hhughes@parkwaywest.org

## November Technical Meeting: Thursday November 13, 2025

**Topic:** "How Misinterpretation of Metallographic Data Led an Industry Down a Rabbit Hole"

**Speaker:** Ed Patrick; Owner, Manager of E.P. Patrick & Associates; PE, FASM

In our modern world, heat exchangers have become ubiquitous, quietly impacting essentially all aspects of life; residential, transportation, all manner of electronic devices, aerospace, defense, etc. They come in all flavors, form factors, and materials of construction. Thermal management of critical electronics rely upon one of the simplest types, the cold plate, which consists of a relatively thin aluminum plate containing milled channels, and a cover plate. Both active and passive cooling methods are employed to protect mounted electronic devices. Typically, cold plates contain large faying areas that require leak free uniformly bonded interfaces. Production vacuum brazing failures manifest as bond line discontinuities, confirmed by metallographic examination or non-destructive methods such as ultrasonic "C" scan. Misinterpretation of such failure analysis data has evolved into the adoption of costly production practices reinforced by misguided technical specifications.

**About the Speaker:** Ed Patrick has been involved in the world of aluminum for more than 60 years. He received his B.S. in Mechanical Engineering in 1963 from the University of Pittsburgh and began to work at the Alcoa Technical Center in 1966. He was with them for 30 years before founding his own company in 1996 as an aluminum technology consultant.

While at Alcoa, Ed spent many years in research management, new product development, manufacturing process development, and technical marketing, among others. His knowledge of aluminum brazing is extensive, and he is generally regarded as one of the leading experts in aluminum manufacturing technology today.

Ed travels widely in his aluminum consulting work, assisting clients with alloy selection, manufacturing processes, and equipment selection, as well as trouble shooting existing operations. He has also conducted aluminum brazing and manufacturing seminars for various clients.

Ed is an AWS Life Member, ASM Fellow and has authored numerous patents and technical papers.

In addition to the presentation, a tour of CCAC Community Maker Lab will be offered. It is an industrial-level facility designed to support entrepreneurs and regional small businesses. It is available for low cost and offers equipment for advanced manufacturing, prototyping, and design.

**RSVP:** by November 10, 2025 to - <https://www.eventbrite.com/e/aws-pittsburgh-section-november-technical-meeting-tickets-1858585391939?aff=oddttdtcreator>

**Meeting Date:** Thursday November 13, 2025

**Meeting Time:** Doors open for Tour 5:30; Dinner 6:15; Presentation following Dinner

**Meeting Location:** CCAC West Hills Center  
1000 McKee Rd  
Oakdale, PA 15071

**Cost:** Members - \$25.00 Non-Members - \$30.00 Students \$15.00

We hope to see you there.

Huck Hughes - Chairman, Pittsburgh AWS  
[hhughes@parkwaywest.org](mailto:hhughes@parkwaywest.org)

Next Meeting – Past Chairmen’s Night

Location: LeMont Restaurant

Details will be announced in the January issue of “Spark”

### **AWS Seminars & Exam Schedule**

The Pittsburgh Section hosts several Certified Weld Inspector (CWI) seminars & exams in 2026. Location and registration information is available on the AWS.org website.

| TYPE               | SEMINAR          | EXAM DATE | SITE CODE |
|--------------------|------------------|-----------|-----------|
| CWI Seminar        | 2/1 - 2/6, 2026  | 2/7/2026  | PA00726   |
| CWI 9 Year Seminar | 2/22- 2/27, 2026 | 2/27/2026 | YS01426   |
| CWI Seminar        | 5/31- 6/1, 2026  | 6/2/2026  | PA05026   |
| CWI 9 Year Seminar | 6/7- 6-12, 2026  | 6/12/2026 | YS05726   |