



AFS NONFERROUS FOUNDRY BULLETIN

AFS & FEF Team up on PBS video highlighting modern metalcasting | AFS Corporate Membership offers valuable benefits | Help AFS fight against foreign trade cheats

Upcoming Metalcasting Courses

The AFS Institute has trained more than 90,000 foundry industry employees!

Nonferrous foundry managers and employees will find considerable value in a number of upcoming courses including those listed below:

Casting Defect Analysis

August 28 – 30 | Live Online via Zoom

Introduction to Metalcasting

September 11 – 13
Live Online via Zoom

Fundamentals of SPC & Process Capability

September 21 – 22 | Schaumburg, IL

Casting Design

October 4 – 5 | Schaumburg, IL

Process Control for Engineers

October 12 – 13 | Schaumburg, IL

Gating and Riser Design 201

October 17 – 19 | Live Online via Zoom

Aluminum Metallurgy 201

October 25 – 27 | Live Online via Zoom

Aluminum Melting 201

November 15 – 17
Live Online via Zoom

Additionally, there are seven nonferrous courses available in the Institute catalog. View it at afsinc.org/training.

Class discounts are available for three or more students from the same company. Please visit afsinc.org/training for all of the details, or contact **Lisa Streator** at lstreator@afsinc.org.

Special note: All AFS Institute courses can be presented on an In-Plant basis in your foundry. Corporate Members receive a 20 percent price advantage. Contact **Jen Christian** at jchristian@afsinc.org to explore these options.

AFS & FEF Team up on PBS video highlighting modern metalcasting

Television viewers nationwide will soon get a glimpse of the exciting world of metalcasting thanks to a fast-paced video from the American Foundry Society and the Foundry Educational Foundation. The video was viewed 1,100 times on YouTube the first four days.

"Spotlight on the Modern Metalcasting Industry" is a five-minute educational video that will be seen by 3 to 4 million viewers through more than 300 airings on local PBS affiliates throughout the U.S. during the first 90 days alone. The video provides an illuminating overview of the metalcasting process, underscores the importance of castings in daily life, emphasizes the contributions of castings to national security and the supply chain, and highlights rewarding careers within the foundry sector.

The video was produced by AFS and FEF in partnership with Trivue Entertainment, a leading media production company specializing in educational programming. It can be viewed at www.afsinc.org/about-metalcasting.

"Modern metalcasting is a \$48 billion industry, producing highly engineered castings that are essential to our modern way of life," said AFS



CEO Doug Kurkul. "Our supply-chain security and national security both depend on a strong domestic metalcasting industry, which provides superb career opportunities. All of these messages are emphasized in the new video. We are grateful to FEF for partnering with us on this significant project."

In addition to the airings on PBS, the video will be made available as follows:

- Online, including YouTube, LinkedIn, and Facebook for general viewership.
- To all 39 AFS regional chapters, 45 student chapters, and FEF-affiliated schools.
- To metalcasters and suppliers, for use in MFG Day programming or career day programming.
- In the AFS Institute's "Introduction to Metalcasting" course.
- To educators and career counselors.
- And to other industry friends and allies.

Help AFS fight against foreign trade cheats

The time is now to crack down on foreign trade cheaters in nations, including China, who are taking advantage of the loopholes in U.S. trade laws to the detriment of foundries in the United States.

During the AFS Government Affairs Fly-In during June, AFS members personally visited many dozens of congressional offices, urging prompt enactment of legislation to crack down on these practices.

AFS is lobbying for:

- The **Fighting Trade Cheats Act**, a bill that will close several loopholes and increase the enforcement powers of federal agencies. The bill numbers are H.R. 2667 and S. 805.
- The **Level the Playing Field Act 2.0**. The bill, H.R. 3882, will strengthen trade laws to crack down on country-hopping.

You can help AFS in this battle in two ways: First, contact your two U.S. Senators and your U.S. Representative, urging them to co-sponsor



Rep. Kay Granger (R-TX) speaks at the recent AFS Government Affairs Fly-In with Stan Bass (Fort Worth Aluminum), his wife, and Owen Daniel (Midland Mfg). Both companies are Corporate Members of AFS.

these bills. You can do so by email, U.S. mail, or by telephone. All congressional offices can be reached at 202-224-3121. Second, please connect with AFS lobbyist Stephanie Salmon at ssalmon@afsinc.org or at 571-242-0186. Let her know of your interest in cracking down on trade cheats. Together, we can make a big difference.

Nonferrous Foundry Leaders Playing Key Roles Across AFS

Numerous technical and business leaders from Nonferrous foundries are once again in key leadership positions in 2023-2024 at the American Foundry Society.

Board of Directors

AFS Board members for 2023-2024 include Kiley Eck Hayon (Eck Industries), Andy Renkey (Harmony Castings), Alan Brink (Spring City Electrical Manufacturing) and Amanda Torkelson (Alu-Bra Foundry), whose companies all produce Nonferrous castings. This year's Board President is Brad Muller (Charlotte Pipe & Foundry).

Aluminum & Light Metals Division

Chair: Herb Doty (General Motors)
Vice-Chair: Luke Schimmel (Fairbanks Morse)
Secretary: Anthony Lindert (OshKosh)
Secretary-Elect: Dan Hoefert (Eck Industries)
Past Chair: Adam Loukus (Loukus Tech)

The Aluminum & Light Metals Division has an active year planned, with four research projects underway, several new research endeavors being explored, special projects, and educational programs, plus planning for the 2024 Aluminum Specialty Conference. The Division also is updating the Permanent Mold Handbook.

Membership in the Aluminum & Light Metals Division has increased recently from 70 to 75

AFS members. New members are warmly welcomed. Meetings are held on location with Zoom remote options. The fall meeting is anticipated to be held in October at Missouri S&T University, with a date to be finalized. The Division is also incorporating metalcasting student presentations into some of its meetings.

Copper Alloys Division

Chair: Jim Valentine (Neptune Technology)
Vice Chair: Jacob Johnson (Foseco)
Secretary: Gerald Richard (Magma)
Chair-Elect: Buddy Barnhill (Lee Brass)
Past Chair: Brent Bowles (Lee Brass)

The Division members share expertise in copper, brass, and bronze-related casting. The Division is actively planning the Sept. 27-28 Copper Alloys Workshop in Schaumburg, IL. Contact **Kim Perna** at kperna@afsinc.org to join the Division.

Nonferrous metalcasting leaders are also active on the Research Board, chaired by Andy Bain (Ford Meter Box) and AFS Technical Council, the latter of which is now chaired by Adam Kopper (Mercury Marine). Just completing a two-year stint as Chair of the Technical Council is David Weiss (Vision Materials). The Technical Council Vice Chair is Tim Hoyt (Allied Mineral Products) and one of the at-large members is Mike Buyarski (The Federal Metal Company).



David Weiss
Vision Materials



Adam Kopper
Mercury Marine



Mike Buyarski
The Federal
Metal Company



Andy Bain
Ford Meter
Box Co. Inc.

Foundry E-Learning Subscriptions on the Rise

It makes perfect sense. Foundries are only as effective as the employees who comprise their team. Foundry E-Learning from the AFS Institute is the perfect complement to your other training endeavors because workers gain foundry skills and knowledge from the convenience of a computer!

In fact, corporate subscriptions to Foundry E-Learning are up over 50 percent over the last year. Modules include:

Aluminum:	5 modules
Copper:	5 modules
Defect Analysis:	11 modules
Green Sand Molding:	6 modules
Introduction to Metalcasting:	7 modules
No-bake Molding & Cores:	3 modules
Safety & Environment:	2 modules
Sand Testing:	15 modules

Over 20 modules are available in Spanish.

These self-paced metalcasting modules, which typically take 15 to 40 minutes to complete, can be leased a la carte. Corporate Members may also invest in very affordable foundry-wide subscriptions that allow for unlimited usage for all employees at one location! Contact **Jen Christian** at jchristian@afsinc.org to learn more and get started.

AFS Aluminum Committee Planning 2024 Conference

Members of the AFS Aluminum & Light Metals Committee are planning an informative Aluminum Conference to be held in the Pittsburgh area in 2024. The conference will include a tour of AFS Corporate Member Harmony Castings.

To join the Committee and help us plan this technical conference, please contact **Kim Perna** at kperna@afsinc.org. We welcome your participation!

Get Ahead of the Curve on Additive Manufacturing

Please join us for the **2023 AFS Additive Manufacturing Conference** to be held **November 7-8** in Dearborn.

Topics include:

- Designing for additive manufacturing
- 3D-printed sand molds & cores
- Printed hard tooling & fixtures
- Hybrid applications
- Plus applied research

There will also be foundry tour of Aristo-Cast on November 9 for registrants.

Registration is open at afsinc.org/conferences.

World's Largest Digital Metalcasting Library: Receives Tremendous Usage

AFS members are deepening their understanding of casting quality thanks to AFS's Peters-Robison Metalcasting Library.

More than 17,000 searchable articles are available to AFS members at no charge. In 2023, a total of 14,906 articles were downloaded by 518 AFS members! Articles include:

- 529 articles referencing copper
- 227 articles referencing brass
- 252 articles referencing bronze
- More than 1,000 articles referencing aluminum
- 401 articles referencing investment casting

The Library is named for Butch Peters, who was formerly the CEO of Brillion Iron Works, and Steve Robison, who was a longtime nonferrous foundry employee in California before joining the AFS staff for more than 20 years. Both men were tremendously dedicated to the Library.

The Peters-Robison Library is very easy to use, but for assistance, contact **Bo Wallace** at bwallace@afsinc.org.

Research Projects of Keen Interest to Nonferrous Foundries

AFS is partnering with ACRC (Advanced Casting Research Center) on **aluminum research** and is reporting results back to members of the AFS Aluminum Committee.

Several AFS-funded research projects with promising implications are also being executed. Corporate Members help fund AFS research and are the first to receive reports on research outcomes.

- Phase 2 of the **"Quantifying Aluminum Casting Quality Through H Gas"** project is progressing, with principal investigator Dan Hoefert (Eck Industries). The steering committee chair is Dr. Adam Kopper (Mercury Marine).

- Also progressing is another exciting project, **"PVD Coatings to Aid Release for Permanent Mold Castings,"** with principal investigator Dr. Steve Midson (Colorado School of Mines). Chairing the steering committee for this project is Randy Oehlein (Carley Foundry).
- The AFS Molding Division is sponsoring **"Digital Active Clay Measurement in Green Sand"** with principal investigators Dr. James Springstead and Dr. Sam Ramrattan (Western Michigan University).
- "Effect of Solution Heat Treatment Time on 356 Fatigue Properties,"** is nearly complete, with its final report coming

soon. David Weiss (Vision Materials) is the Principal Investigator.

- Another project led by Principal Investigator David Weiss (Vision Materials) is **"Welding Alloy and Process for Al-Cu Sand Castings."** This important research is nearing completion.

Maintain your Corporate Membership in good standing status or invest in Corporate Membership to be the first to receive news of breakthrough developments and completed results!

AFS: Copper should be designated a "critical mineral"

AFS is calling on the Biden Administration to designate copper as a "critical mineral." With the U.S. prioritizing reshoring of key industries, and with the nation in a race to compete with China on development of renewable energy technology, access to reliable and affordable supplies of copper have never been more important.

With the copper supply chain at risk for disruptions, there should also be a national plan to streamline leasing and permitting for exploration, production, processing, and recycling of copper. A large number of copper foundries are Corporate Members of AFS, with employees participating in the AFS Copper Committee.

Europe has already made such a designation. Sadly, the U.S. Geological Survey in May 2023 ignored bipartisan requests to make the designation. AFS and the Copper Development Association will keep up the pressure, working with allies on Capital Hill to persuade the Administration to take this key step.



Sachin Shivaram (Wisconsin Aluminum Foundry) meets at a previous Foundry Leadership Summit with global futurist Dan Burrus.



AFS Board members Kiley Eck Hayon (Eck Industries), Adam San Solo (Neenah) and Pete Satre (Allied Mineral Products) enjoy the 2022 Foundry Leadership Summit with Adam's Family.

2023 Foundry Leadership Summit: Tremendous Value for Nonferrous Foundry Executives

Plan to join leaders from across the metalcasting supply chain at the Foundry Leadership Summit, Sept. 18-20 at the beautiful Omni Grove Park Inn in Asheville, NC.

Nonferrous foundry leaders will be well represented on panel discussions:

- AFS Board member **Kiley Eck Hayon** (Eck Industries) and **Sachin Shivaram** (Wisconsin Aluminum) will be on a panel on Opportunities & Challenges Facing Foundries that also includes moderator **Brad Muller** (Charlotte Pipe & Foundry) as well as **Nathan Heisler** (Bradken) and **Matt Hladki** (Grede Castings).
- A second panel will focus on the Future of Motor Vehicles in an Era of Transition and the Implications for Metalcasters. AFS 2nd Vice President **David Gilson** (Sintercast) will serve as the moderator.

Topics include:

- Succession Planning for Foundries
- Industry 4.0 for Metalcasters
- What events in Asia and Europe mean for your business
- The Future of Motor Vehicles in an Era of Transition
- 2023-2024 Economic Outlook
- The Political and Economic Climate: The View from Washington

Renew friendships and make new friends through extensive business networking, alongside a lineup of world-class speakers. Don't forget to register for the fun golf tournament.

Visit afsinc.org/conferences or contact **Doug Kurkul** at dkurkul@afsinc.org to learn more.

Young Professionals to Tour Wisconsin Aluminum, Kohler

The AFS Future Leaders in Metalcasting (FLM) annual meeting will be Oct. 23-24 at the Blue Harbor Resort in Sheboygan, WI. It includes two foundry tours, a roundtable with industry peers, a skills integration workshop, and fun networking activities.

Young professionals are key to our industry's future. Support our industry and your company by sending your young professionals to this event.

This is all about promoting succession planning and leadership in our industry. If your foundry does not already have key employees participating in FLM, we invite their involvement! It is open to members of AFS. Visit afsinc.org/conferences to learn more about FLM and register for the annual meeting or email **Cathy Potts** at cpotts@afsinc.org.



Attendees of the 2022 Future Leaders of Metalcasting Annual meeting networking at the Read House Hotel in Chattanooga, TN.

Copper Alloy Workshop Slated for September

The anticipation is building for the **2023 AFS Copper Alloy Workshop**, presented by AFS on **Sept. 27-28 in Schaumburg, IL**. This workshop is tailored for copper alloy manufacturing professionals at all experience levels. Attendees will make the most of two days with 15 expert-led sessions, coupled with making new friends in the industry through business networking.

Topics will include green sand systems, gating and risering, metallurgy, additive manufacturing, quality inspection, foundry safety, and – back by popular demand – a panel on casting defects.

The workshop is sponsored by Federal Metal Co., Foseco, and Kramer International.



AFS forms Artificial Intelligence Subcommittee

More than 120 AFS members registered for the most recent virtual meeting of the new AFS AI Subcommittee. The group is helping foundries ascertain how to apply AI to the efficient operation of their foundry.

The AI Subcommittee is part of the AFS Engineering & Smart Manufacturing Committee, which is chaired by Greg Bray (EC&S). The Subcommittee is chaired by Tom Dore, formerly of Alu-Bra Foundry and AFS.

To join either group, please contact **Kim Perna** at kperna@afsinc.org.

AFS Environmental Advocate: EPA Regulatory Blitz is Unprecedented

Jeff Hannapel has been engaged in U.S. environmental policy for 30 years, but he has never seen the level of rule-making activity at EPA that we're seeing now.

Fortunately, Jeff is representing AFS and metalcasters to ensure that rules are as soundly developed as possible.

AFS members in June expressed concerns about EPA's premature rush to tighten PM2.5 emission standards. These unnecessary changes could drive plant modernization and reshoring to a halt in much of the country. AFS has also filed detailed comments with EPA.

On May 16, AFS submitted comments to EPA urging it to discontinue its planned removal of affirmative defense provisions for air permits.

On May 11, EPA announced plans to drastically greenhouse gas emissions from power plants. Litigation is likely.

AFS is also fighting for small foundries, with Jeff Hannapel serving as a small business representative as part of the Small Business Regulatory Enforcement Fairness Act (SBREFA) panel process on air emissions reporting, and AFS Board member Earl Miller (Accurate Castings) serving on heat illness.

AFS Corporate Membership offers valuable benefits

The number of AFS Corporate Members has grown from 790 to nearly 990 over the last several years. The reason? Leaders are recognizing the tremendous value and benefits that come with the Corporate Member Advantage program, starting at just \$1,240 per year based on foundry size. Call **Ben Yates** at **847-824-0181 ext. 205** to discuss Corporate Membership Advantage. Here is a benefits summary:

TECHNICAL & SAFETY SUPPORT:

The AFS technical staff of Brian Began, Travis Frush, Greg Kramer and Bo Wallace is at your service. AFS's technical committees will connect your staff with the most current research and technical information on Aluminum & Light Metals, Copper, Environment Health and Safety, and Engineering & Smart Manufacturing. Everyone at your company will gain access to AFS webinars and the 17,000-article AFS Library, plus quarterly issues of the *International Journal of Metalcasting*.

CASTING SALES AND NEW CUSTOMERS:

Corporate Member foundries receive year-around listings in the digital Casting Source Directory and 3 free listings in the printed version, which is U.S. Mailed every autumn to 10,000 casting buyers and designers.

ECONOMIC PROJECTIONS FOR THE FOUNDRY INDUSTRY:

Projecting business trends? Twice each year, you'll receive the authoritative *AFS Forecast & Trends* with updated projections and data. Each issue is a \$1,000 value.

EMPLOYMENT LAW UPDATE:

As a Corporate Member, you and your colleagues will receive this monthly update on the hottest employment-law issues affecting your foundry.

PUBLIC POLICY WEBINARS:

OSHA and EPA are waging a regulatory assault on manufacturers like foundries. Our Washington, D.C. lobbyists will bring you current on these free webinars.

DEEP DISCOUNTS:

You'll receive a deep discount to the Environment, Health & Safety Conference, October 3-5, in Chicago; to the 2024 Aluminum & Light Metals Conference; 50% off AFS technical books and wall charts; and discounts to Metalcasting Congress 2024 in Milwaukee, April 23-25.

We would welcome you as our newest Corporate Member. Contact **Ben Yates** at **847-824-0181 ext. 205** or byates@afsinc.org to learn more.

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