



ADVANCING THE TECHNICAL DEVELOPMENT, PRODUCTION, PROCESSING AND APPLICATION OF IRON AND STEEL

## **AIST Fall Joint Meeting Notice / Agenda Electric Steelmaking and Maintenance & Reliability Technology Committees**

**Date: 17 August 2024**  
**Location: Charleston, SC**  
**Co-located with Globetrotters Annual Event**  
**Room: Topaz**

### **Arrangements**

**Charleston Marriott and 170 Lockwood Dr, Charleston, SC 29403**  
**Reserve by 26 July 2024** for AIST Room Rate of \$199/night  
For reservations, [BOOK HERE](#)

1. **Continental Breakfast** 8:00 a.m.
2. **Chair's opening remarks—Justin Zwick & Rachel Schmidt** 9:00 a.m.
3. **Appoint minute-taker**
4. **Antitrust guidelines**
5. **Membership and attendance**
6. **Review and approve minutes of previous meeting**
7. **AIST Staff Announcements**
8. **Steel Industry Fatalities**
9. **Main agenda items**
  - **AISTech session development—Bob LaRoy and Landon Wood**
    - *Selection of Abstracts (Due by 16 Sept)*
    - *Determine session structure (Due by 28 Oct) including session titles & session chairs*
    - *Review Papers Chair and Session Chair instructions and get session chair volunteers*
  - **Finalize AISTech call for papers for next year**
    - *ESTC—Implementation of innovative safety programs and procedures; advances in energy efficiency, materials recovery, and heat recovery and their associated impact on greenhouse gas generation; advancements in workplace environmental factors, including gas cleaning and mitigation of greenhouse gas generation; process analysis and optimization, including new EAF technologies and advances in auxiliary systems such as arc regulation, oxygen and solids injection, and water-cooled components; EAF revamping projects and start-up experience with new equipment; raw materials, including scrap optimization, selection of alternative iron feed materials and yield maximization;*



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*associate development and training; EAF mechanical, hydraulic, and electrical maintenance, including primary, secondary and tertiary electrical components; artificial intelligence & digitalization.*

- *MRTC—Topics include planning, scheduling, preventive maintenance, predictive maintenance, condition monitoring, reliability, resource development/talent acquisition, resource utilization/optimization, CMMS, problem solving and new technologies. Papers should focus on strategies, tactics, initiatives, and tools associated with reliability and maintenance activities that have resulted or will result in bottom-line improvements in plant operations.*
- **Technology committee award planning**
  - **MRTC**
    - *Reliability Achievement Award*
  - **ESTC**
    - *Charles W. Briggs Award (ESTC Best Paper)*
    - *John Bell Award—Jeremy Jones*
- **Review EAF roundup—final document due November 2024**
- **Technology Training conference**
  - *Maintenance Solutions: Concepts to Troubleshooting*
    - *10-12 September 2024*
    - *Indianapolis, IN with tour of Nucor Steel Indiana*
  - *Modern Electric Steelmaking—A Practical Training Seminar*
    - *3-7 February 2024*
    - *Mobile, AL with tour of SSAB Alabama and Outokumpu*
- **EAF Japan Study Tour Update**

### **10. Discussion items**

- a. Auto Taphole Sanding System – Barry Talbot, SSAB, Jacob Sarachine & Michael Wilson, Berry Metal Co.

*In partnership with SSAB Alabama, BMC has designed, engineered, installed, and commissioned the first-generation sanding system for EAF applications at SSAB Alabama. The primary focus was to eliminate the increased risk of exposure of liquid steel for Melt Shop employees by removing the need to ascend the sump for taphole sanding operations. The system is designed to be completely “off-line”, removing all equipment from the furnace and tilt platform, allowing the system to easily be maintained and eliminate risk exposure to maintenance personnel as well. The camera system and functionality of the sanding system is controlled remotely from the tap station, allowing*



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*the operator to perform visual inspections of each sanding cycle using a high temp/resolution camera attached to the sanding mechanism.*

b. **Translating Analytics into Action, Jeff Blankenship, MRSI/ Titan Bearings**

*Too many mills have let their critical spare parts sit without proper attention or procedures to insure that they are in usable condition when situations require the parts. This presentation will walk you through a process and forms to allow mills to initiate a process to ensure critical spare parts are no longer a concern but true assets.*

c. **Safety Advances made at Steel Dynamis Butler EAF, Mike Oberlin, Steel Dynamics**

d. **Spray Cooled Copper Burner Box, Scott Ferguson, The Systems Group**

*The potential for high pressure water leaks inside the EAF presents a serious and dangerous situation. With all of the discussions about “no man on the floor” and the continuing emphasis for better safety around the furnace, Systems Spray-Cooled has developed a Spray-Cooled Copper Burner Box. Spray-Cooling utilizes water droplet impingement, as opposed to high pressure cooling water circuits. In the event of a leak, a high-pressure water circuit will introduce significantly more water into the furnace than Spray-Cooled equipment, making spray-cooling safer. This paper will review the implementation and results of installing and operating a non-pressurized burner box.*

*i.*

e. **Implementation of CoreTemp Manless Temperature System for Improved Operator Safety, Joseph Hallmark, Hereaus Electro-Nite**

f. ***Next meeting***

**ESTC—5 February 2024 with Modern Electric Steelmaking training seminar  
MRTC—**

g. ***Chair conclusion—Zwick & Schmidt***

h. ***Adjourn***

*4 p.m.*

Committee attendees are welcome to join the Globetrotters Welcome Reception from 4:30-6pm in the Courtyard



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### ***Antitrust Compliance***

Antitrust law prohibits agreements or understandings between two or more individuals or businesses to regulate prices or quantities of goods and services, to allocate customers or territories, to hinder or limit a competitor or potential competitor's operations, or otherwise unreasonably restrain business activity. Discriminatory pricing or servicing is also prohibited.

Every individual who participates in AIST meetings and activities should follow these guidelines:

- DON'T discuss with other members your own or competitors' prices, pricing procedures, or anything that might affect prices such as costs, discounts, terms of sale, or profit margins, or anticipated wage rates.
- DON'T make announcements or statements about your own prices or those of competitors.
- DON'T talk about what individual companies plan to do in particular markets or with particular customers.
- DON'T disclose to others any competitively sensitive information.
- DON'T propose or agree to any action intended to disadvantage or injure another company.
- DON'T stay at a meeting or activity where any such anti-competitive talk occurs.
- DO have an AIST staff person present at any meetings and insist on the agenda being followed and minutes kept.
- DO confer with AIST staff before making any statement with competitive ramifications.

It is incumbent upon all AIST members to adhere to these guidelines to avoid putting all parties and their respective companies at risk for antitrust law violation.

### ***Anti-Harassment Policy***

The Association for Iron and Steel Technology (AIST) is dedicated to providing harassment-free events for everyone, regardless of age, race, religion, disability, gender, gender identity or sexual orientation. We do not tolerate harassment in any form of anyone attending an AIST event.

Harassing behaviors include: offensive verbal comments related to age, race, religion, disability, gender, gender identity or sexual orientation; the use or display of sexual images, activities or commentary in public spaces; deliberate intimidation; stalking or following; harassing photography or recording; sustained disruption of events; or inappropriate physical contact.

Participants asked to stop any harassing behavior are expected to comply immediately. Participants violating this policy may be sanctioned or expelled from the event or the membership at the discretion of the AIST leadership.