REGISTRATION INCLUDES
Welcome reception Monday, breakfast Tuesday–Friday, lunch Tuesday–Thursday, reception Wednesday, plant tour with bus transportation, and a course workbook or flash drive including presentations.

HOTEL ACCOMMODATIONS
A block of rooms has been reserved at The Nines, A Luxury Collection Hotel, Portland. Please call the hotel at +1.888.627.7208 by 13 January 2020 to secure the AIST discount rate of US$199 per night for single/double occupancy.

WHO SHOULD ATTEND
Electric steelmaking attendees who wish to gain a fundamental understanding of the electrical, thermomechanical and technical aspects of modern electric furnace steelmaking. EAF furnace operators, maintenance personnel, upstream/downstream personnel, metallurgists and suppliers would benefit from this comprehensive seminar. Electric steelmaking attendees include meltshop employees, foundry workers, process engineers, new employees and suppliers.

ORGANIZED BY
AIST’s Electric Steelmaking Technology Committee.

PROFESSIONAL DEVELOPMENT HOURS
This course may qualify for up to 21.25 Professional Development Hour (PDH) credits. Each attendee will receive a certificate listing the quantity of PDH credits earned for this course. This course is not approved for PDH credit in New York, Florida, North Carolina and Oklahoma.

ABOUT THE PROGRAM
This course covers safety, the basics of electrical and mechanical features of electric arc furnaces, refractories, and the role of raw materials. The program will explore the fundamentals of electric furnace steelmaking technology, the use of energy inputs, the steelmaking process, electrodes and environmental concerns for electric steelmaking. Attendees will also have the opportunity to learn how their operation compares to industry benchmarks, and to hear about the latest developing technologies. The midpoint of the conference includes a plant tour followed by an expert roundtable and reception with an open forum to discuss questions and challenges.

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Monday, 3 February 2020

4–6 p.m. Registration
5–6 p.m. Welcome Reception

Tuesday, 4 February 2020

7 a.m. Registration and Breakfast
8 a.m. Introductions
8:10 a.m. The Day We Will Remember
Ricky Rollins, Ricky Rollins Safety Speeches LLC
Ricky Rollins will tell the story of how he almost lost his life on a steel mill start-up 25 years ago and how that accident would have affected his family. He will also tell four more stories from the perspective of friend, father, husband, brother, co-worker, supervisor and department manager of things that have affected his circle.
9 a.m. Break
9:15 a.m. Chemistry of EAF Steelmaking
Larry Heaslip, Interflow Techserv Inc.
The fundamentals of EAF steelmaking chemistry are presented in a way that will be informative to attendees having little background knowledge as well to those who are completely new to the topic.
10:30 a.m. Break
10:45 a.m. Chemistry of EAF Steelmaking (cont’d)
Larry Heaslip, Interflow Techserv Inc.
Noon Lunch
1 p.m. Chemistry of EAF Steelmaking (cont’d)
Larry Heaslip, Interflow Techserv Inc.
2:15 p.m. Break
2:30 p.m. Chemistry of EAF Steelmaking (cont’d)
Larry Heaslip, Interflow Techserv Inc.
3:30 p.m. Break
3:45 p.m. Chemical and Electrical Energy Inputs and EAF Performance
Sam Matson, Commercial Metals Company
The presentation will cover the timing and relationship between the electrical energy input and chemical energy input. Tracking energy inputs and losses will be discussed, as well as their relationships to the timing and magnitudes of the energy inputs.

Wednesday, 5 February 2020

7 a.m. Breakfast
8 a.m. Part I: EAF Designs and Operations
Jeremy Jones, CIX Inc.
Part one of this presentation covers the historical developments in EAF design in the last 25 years.
9 a.m. Break
9:15 a.m. Part II: EAF Technologies — The Path to EAF Optimization
Jeremy Jones, CIX Inc.
Part two deals with methods aimed at EAF optimization.
10:20 a.m. Break
10:30 a.m. EAF Operations
Mark Trapp, CIX Inc.
Noon Lunch
12:30 p.m. Plant Tour of Cascade Steel Rolling Mills Inc.
4:30 p.m. Reception and Roundtable Discussion
Moderator: Sam Matson, Commercial Metals Company
Panelists: Eugene Pretorius, Nucor Corp.; Jeremy Jones, CIX Inc.; Harriet Durka, SANGRAF International; and Stephan Ferenczy, TCI Inc.

Thursday, 6 February 2020

7 a.m. Breakfast
8 a.m. Importance of Scrap Residual Controls
Dennis Rodal, ELG Haniel Metals Corp.
Scrap is the key raw material in EAF steelmaking, and controlling residuals is essential to making quality steel.
9 a.m. Break
9:15 a.m. Ladle Metallurgy Furnace — LMF
Helmut Ottmann, Nucor Steel-Berkeley
10:15 a.m. Break
10:30 a.m. EAF Maintenance Requirements
Stephan Ferenczy, TCI Inc.
Typical electrical, mechanical and water-cooled equipment maintenance requirements will be discussed. Root-cause failure analysis techniques and practical solutions will be presented.
Noon Lunch
1 p.m. EAF Industry Perspective — Past and Future
Raymond Monroe, Steel Founders’ Society of America
2:15 p.m. Break
2:30 p.m. Environmental Operations for the EAF
Sam Matson, Commercial Metals Company
This presentation will review the main gaseous emissions, which part of the steelmaking process is likely to generate, and potential ideas for how to reduce them. Also included will be an overview of air pollution control equipment operation.
3:45 p.m. Break
4 p.m. Ore-Based Metallics in the EAF
Zane Voss, CIX Inc.
The use of ore-based metallics brings many advantages to the EAF operator. However, these materials need to be well understood in order to use them properly and obtain the most benefit.

Friday, 7 February 2020

7 a.m. Breakfast
8 a.m. The Basics of Arc Furnace Regulation System
Renzo Santiago, Tenova Core
9:15 a.m. Break
9:30 a.m. Gas/Carbon Injection Systems
Mike Grant, Air Liquide Global Management Services GmbH
This lecture will contain a practical (with some theory) description and strategy of the use of oxygen and gaseous fuels in the electric arc furnace. The importance and strategy of use of carbon injection will also be presented. A strong emphasis on the safe use of oxygen will be made.
11 a.m. Graphite Electrode Manufacture and Use
Tomo Kureta, Graftech International Ltd.
This presentation will review the graphite electrode manufacturing process, proper field assembly/usage as well as suggested corrective actions when optimum performance is not being achieved.
Noon Conference Adjourn