

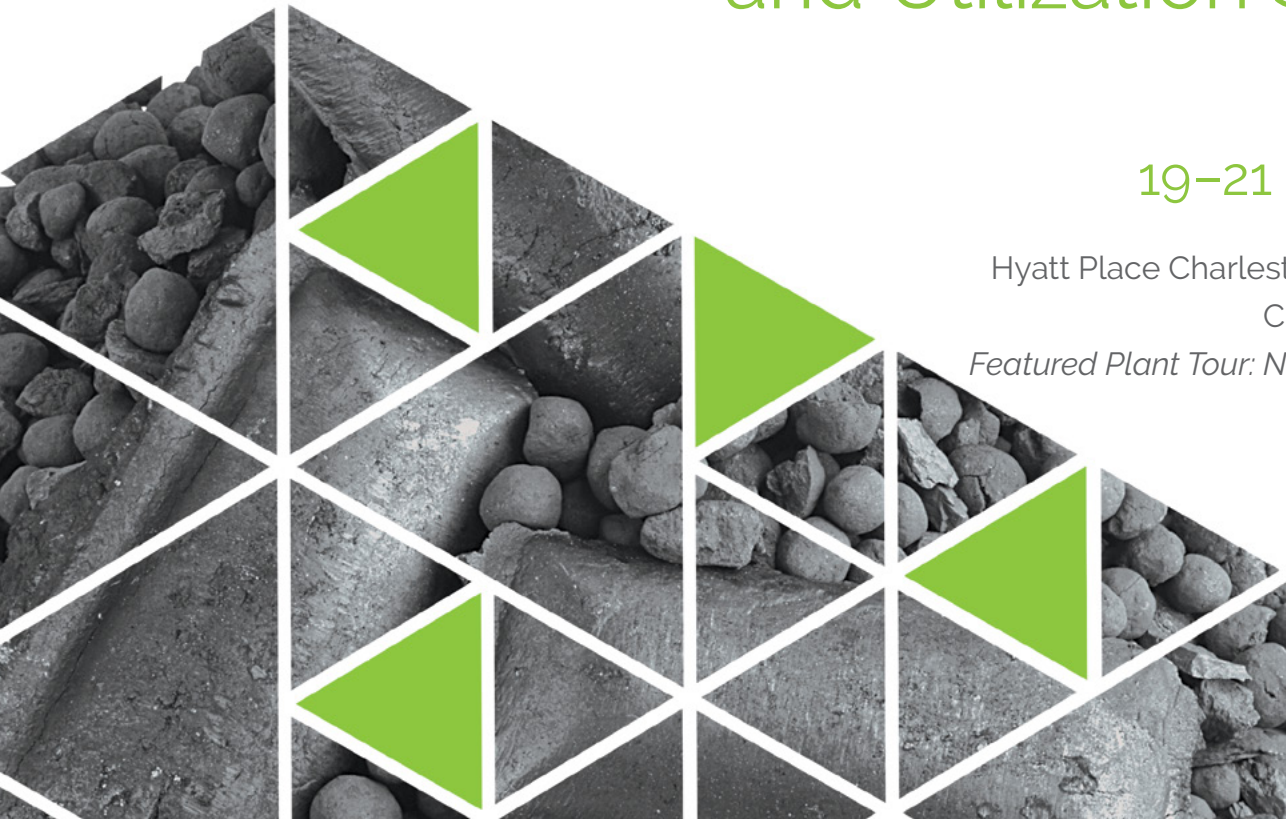


DRI & HBI: Logistics, Production and Utilization Seminar

19–21 March 2018

Hyatt Place Charleston/Historic District
Charleston, S.C., USA

Featured Plant Tour: Nucor Steel–Berkeley



About the Program

The production and use of direct reduced iron (DRI) in North America is increasing with the reduced price of natural gas due to advances in drilling technology. As such, DRI is becoming a more important feedstock to the steelmaking process. This conference will focus on areas that include: raw materials and DRI handling and shipping; technologies to produce DRI; and the use of DRI to produce steel in electric arc furnaces (EAFs), blast furnaces and basic oxygen furnaces (BOFs).

Who Should Attend

Those engaged in the production, sale and use of DRI; managers and engineers from EAF, BOF and blast furnace operations; suppliers of iron ore, coal and natural gas and; steel company, engineering company, academic and research personnel engaged in ironmaking process development.

Professional Development Hours

This course may qualify for up to 9.5 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.

Organized By

AIST's Direct Reduced Iron Technology Committee.



Featured Plant Tours

Nucor Steel-Berkeley

Registration Includes

Registration includes reception Monday, breakfasts and lunches Tuesday and 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 Hyatt Place Charleston/Historic District. Please call the hotel at +1.800.993.4751 by 19 February 2018 to secure the AIST discount rate of US\$169 per night for single/double occupancy.

AIST Members

US\$795

by 5 February 2018

US\$895

after 5 February 2018

Non-Members

US\$1,010

by 5 February 2018

US\$1,110

after 5 February 2018



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Schedule of Events

Monday, 19 March

4–6 p.m.

Registration

5–6 p.m.

Welcome Reception

Tuesday, 20 March

7 a.m.

Registration and Breakfast

8 a.m.

Overview of DRI Processes and Products

Joe Poveromo, RMI Global Consulting

Introduction to direct reduction of iron ores to produce direct reduced iron (DRI), a metallized iron ore. Review of global production and trade of ore-based metallics such as DRI and pig iron.

8:30 a.m.

Pellets for Direct Reduction

Rénard Chaigneau, Rio Tinto Iron Ore

Within DRI production, high-grade pellets are a key burden component. The lecture will cover how to manufacture such high-grade pellets, the key quality components to look for and its value through the processing in the DRI/EAF route.

9:30 a.m.

Direct Reduction Technology (Non-Gas- and Shaft-Based)

Yakov Gordon, Hatch

Natural gas- and coal-based direct reduction technologies are described and compared. Fundamentals of their operation and major differences are evaluated and discussed. Principles of selection of direct reduction technology for specific site conditions are presented.

10 a.m.

Break

10:15 a.m.

MIDREX® DRI Technology and Project Overview

Brad Cantrell, Midrex Technologies Inc.

For more than 40 years, the MIDREX® direct reduction process has been the most prominent and productive in the world. More than 60% of the annual DRI production is attributed to MIDREX® plants, the technology continues to grow and expand to meet the evolving needs of steelmakers. This presentation will cover the MIDREX® process, production routes, technology advancements and reference global reference plants.

10:45 a.m.

ENERGIRON HYL Technology and Project Overview

Teresa Guerra, Tenova HYL/ENERGIRON, and Dario Pauluzzi, Danieli/ENERGIRON

The presentation will be divided in two parts, one talking about the ENERGIRON III technology and the second part covering the description of the ENERGIRON ZR scheme.

11:15 a.m.

Environmental Issues and Water Treatment

Jim Hatcher, ChemTreat Inc.

Noon

Lunch

1:15 p.m.

DRI and HBI: Bulk Material Handling and Shipping

Nigel Noel, Nu-Iron Unlimited

2:15 p.m.

DRI: Safe In-Plant Handling and Storage

Sergio Guzman, Tenova Inc.

3:15 p.m.

Break

Schedule of Events (cont'd)

3:30 p.m.

Use of DRI in EAF Steelmaking

Jeremy Jones, CIX LLC

This session will cover the theory and practice of DRI/HBI utilization in the EAF. The session will look at typical operational considerations as well as limitations. The session will also touch on the subject of value-in-use and how to develop an optimal metallic strategy using DRI/HBI.

4:30 p.m.

DRI Pellets as a Scrap Substitute in BOF/BF

Janice Bolen, Hatch

Wednesday, 21 March

7 a.m.

Breakfast

8 a.m.

ArcelorMittal Production and Use of DRI

Elaine Chen, ArcelorMittal Global R & D – East Chicago
ArcelorMittal is the world's largest producer of steel and one of the world's biggest producers/consumers of DRI. In this presentation, an overview on DRI production within ArcelorMittal and its use will be introduced. The recently developed technologies and these related laboratory tests will be discussed, such as oxygen injection, in-situ reforming and natural gas injecting to the furnace, etc.

9 a.m.

Nucor DRI Use in EAF

Eugene Pretorius, Nucor Corp.

10 a.m.

Break

10:15 a.m.

Dust Recovery and Reuse

Erick Bubniak, Diproinduca

11 a.m.

Introduction to Host Facility

Ross Straubinger, Nucor Steel-Berkeley

Noon

Lunch and Depart for Plant Tour of Nucor Steel-Berkeley 🌄

4 p.m.

Return From Plant Tour and Adjourn Conference

