ROD AND BAR ROLLING

A PRACTICAL TRAINING SEMINAR

23–26 FEBRUARY 2015
CHARLESTON, S.C., USA
THE MILLS HOUSE WYNDHAM GRAND HOTEL

ABOUT THE PROGRAM

This seminar will focus on breaking down key mill elements and how controlling these elements will positively affect hot rolled as-rolled quality, facility utilization and yields. The presenters will cover basic making of steel, readying a mill for its production cycles, reheat furnace, work rolls and rolling practices that affect mill quality through final customer requirements. A technical look at rolling forces will increase one's understanding of torque and how it relates to mill rolling equipment. In addition, the presentations will include a realistic approach to safety and the basic theory of rolling.

SCHEDULE OF EVENTS

MONDAY, 23 FEBRUARY 2015

4 p.m.
Registration

TUESDAY, 24 FEBRUARY 2015

7 a.m.
Registration and Continental Breakfast

8 a.m.
Introduction

8:05 a.m.
WELCOME TO NUCOR STEEL–BERKELEY
CHRIS STOW, NUCOR STEEL–BERKELEY
Overview of Nucor Steel–Berkeley with a concentration on the beam mill.

MORE INFORMATION AT
AIST.ORG/TECHNOLOGYTRAINING

8:30 a.m.

TECHNICAL INTRODUCTIONS

BOB GREUTER, DANIELI CORP.

9 a.m.
Break

9:15 a.m.

CHANGING THE MINDSET FOR A SAFER ENVIRONMENT

MATT BLITCH, NUCOR STEEL–NEBRASKA AND JERRY HERMANN, NUCOR STEEL–BERKELEY

Overcoming mindsets and attitudes can be tough in the steel industry, but it is imperative to be injury free. Common errors and the loss of focus that occurs in the mill will be discussed. Also explained will be how human behaviors influence safety.

10:15 a.m.
Break

10:30 a.m.

REHEAT FURNACE: OPERATIONS AND MAINTENANCE

DAN DAVIES AND MIKE FINAN, ANDRITZ BRICMONT INC.

This session will discuss the operation of a furnace to properly and efficiently heat steel with emphasis on safely operating and starting a furnace.

Noon
Lunch

1 p.m.

PASS DESIGN ROLLING THEORY

JOE KENNEDY, QUAD ENGINEERING INC.

The topics to be covered include: pass design terminology, how shaped bars are rolled, pass design basics, and how to set up and maintain bar size.

2:15 p.m.
Break

2:30 p.m.

ROLLING MILL SETUP

KEVIN BARBEE, DANIELI CORP.

This segment provides an introduction to the processes and procedures for setting up a rolling mill to run a product. Topics covered include: mill stand "gapping," insertion of mill stands, recipe setup and checklist items prior to calling a bar, as well as a brief discussion on the input parameters for pulpit operation, and how those parameters are used by the rolling mill automation.

3:30 p.m.
Break

3:45 p.m.

ROD AND BAR PRODUCTS AND APPLICATIONS

BOB GREUTER, DANIELI CORP.

A basic overview of how to diagnose bar defects correctly back to billet or rolling issues and then further pinpoint the rolling issue.

5 p.m.
Reception

WEDNESDAY, 25 FEBRUARY 2015

7 a.m.
Continental Breakfast

8 a.m.

WORK ROLLS

WILLIAM POSEY, SINTERMET LLC

Discussion of all rolls that come in contact with the rod/bar during hot rolling. Roughers and intermediate rolls with special focus on finishing rolls, and rod blocks will also be discussed.

9:30 a.m.
Break

9:45 a.m.

ROLLING FORCES: SPINDLES – GEARING – TORQUE DEVICES

KEVIN BARBEE, DANIELI CORP.

This segment provides a comprehensive description of the mechanical components of a rolling mill stand, how they function and how they handle stress of rolling. An in-depth investigation of both the drive line and the mill stand will include how the components work together, common failure modes, preventive and predictive maintenance strategies, early indicators of functional failures, and product quality problems that can stem from drive line wear. An overview of the effect of process control on the rolling mill will provide real-world insight on the "voodoo" of pass design.

10:45 a.m.
Break

11 a.m.

ROLLING FORCES: SPINDLES – GEARING – TORQUE DEVICES (CONT'D)

KEVIN BARBEE, DANIELI CORP.

Noon
Lunch

1 p.m.

COLD PRODUCT DOWN-CUT SHEARS

DAVE WELLINGTON AND BOB BENNETT, DANIELI CORP.

Cold product shears are critical pieces of equipment in a bar mill. Located just downstream of the cooling bed, these shears take the cooling bed material cut to multiples of the customers length and cut it to the proper ordered length. These "cut" lengths must arrive at the customer within length tolerance and exhibiting acceptable sheared ends. Understanding these shears and how to maintain them is a very important operator and maintenance function.

2:15 p.m.
Break

2:30 p.m.

MOTORS, DRIVES AND SPEED CONTROL

STEVE PEGG, RUSSULA CORP.

Presentation will be a description of the issues and challenges in selecting a proper drive system and mill automation for long product rolling mills. The emphasis will be on practical applications.

4:15 p.m.

PANEL DISCUSSION AND SEMINAR REVIEW

THURSDAY, 26 FEBRUARY 2015

7 a.m.
Continental Breakfast

8 a.m.

PLANT TOUR OF NUCOR STEEL-BERKELEY

Noon

RETURN FROM PLANT TOUR AND ADJOURN

REGISTRATION FEES

Advance registration by 12 January 2015: Member US$745, Non-member US$960. Registration after 13 January 2015: Member US$845, Non-member US$1,060. Registration fees include continental breakfasts, lunches, and continuous breaks Tuesday and Wednesday, reception Tuesday, continental breakfast Thursday, plant tour and a course workbook or flash drive including presentations.

MORE INFORMATION AT
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REGISTER NOW