The key focus of the program is to discuss the practical aspects of casting slabs, billets and blooms, starting with a historic perspective on continuous casting, followed by casting machine design. The first day covers casting principles regarding mold fluxes, solidification and oscillation, water treatment, reoxidation and quality issues, including caster breakouts. The second day addresses maintenance issues, including mold design and mechanisms, caster rolls and bearings, and caster hydraulics. A panel discussion, with participants that have more than 100 years of combined casting experience, concludes the program.
9 a.m.  
**CONTINUOUS CASTING DESIGN AND TECHNOLOGY (SLAB AND LONG PRODUCTS)**  
**WALT ANTOS, PRIMETALS TECHNOLOGIES USA LLC, AND JOSEPH LAUGHLIN SMS USA LLC**  
General technology and design considerations for long and flat product casting technology.

9:45 a.m.  
Break

10 a.m.  
**AN OPERATOR’S GUIDE TO CONTINUOUS CASTING FLUX – WHAT IT IS, WHAT IT DOES AND HOW IT IS USED**  
**BRIAN THOMAS, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN**

11 a.m.  
**INITIAL SOLIDIFICATION AND OSCILLATION MARK FORMATION**  
**IAN BAKSHI, KME AMERICA INC.**

1 p.m.  
**SPRAY NOZZLE BASICS**  
**STEPHEN SWOOPE, DELAVAN, AND ERIC ROSENOW, NALCO, AN ECOLAB COMPANY**  
A review of secondary cooling and the various types of nozzles used in casting. A practical overview of nozzles for operators with a technical edge for maintaining and managing the equipment.

1:45 p.m.  
**SOURCES OF REOXIDATION AND WHY TO AVOID**  
**RONALD O’MALLEY, MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY**

2:45 p.m.  
Break

3 p.m.  
**CASTER BREAKOUTS AND THEIR PREVENTION**  
**WILLIAM EMLING, SMS USA LLC**  
Review of various causes for breakouts and discussion of systems and solutions designed to prevent them. This talk will closely follow the chapter in The Making, Shaping and Treating of Steel®, 11th Edition, Casting Volume.

3:45 p.m.  
**CASTER QUALITY DEFECTS AND THEIR POTENTIAL CAUSES**  
**RONALD O’MALLEY, MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY**

5 p.m.  
Adjourn

**WEDNESDAY, 14 OCTOBER 2015**

7 a.m.  
Continental Breakfast

8 a.m.  
**MOLD DESIGN, COPPER-BASED ALLOYS AND MOLD FAILURE MECHANISMS (SLAB AND LONG PRODUCTS)**  
**IAN BAKSHI, KME AMERICA INC.**

9 a.m.  
**MOLD AND COPPER MAINTENANCE AND COATING TECHNOLOGIES**

10 a.m.  
Break

10:15 a.m.  
**CASTER ROLL MAINTENANCE AND OVERLAY TECHNOLOGIES**

11:15 a.m.  
**CASTER BEARINGS – TYPES OF BEARINGS, FAILURE MODES AND PREVENTIVE MAINTENANCE**

Noon  
Lunch

1 p.m.  
**CASTER HYDRAULICS – FAILURE MODES AND PREVENTIVE MAINTENANCE**

1:45 p.m.  
**BILLET AND BLOOM CASTER MAINTENANCE**

2:30 p.m.  
Break
2:45 p.m.

**PANEL DISCUSSION**

RONALD O’MALLEY, MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY; RICHARD BESICH, ARCELORMITTAL INDIANA HARBOR; IAN DEEKS, NUCOR STEEL—SOUTH CAROLINA

4 p.m.

Reception

**THURSDAY, 15 OCTOBER 2015**

7 a.m.

Continental Breakfast

8 a.m.

**PLANT TOUR OF NUCOR STEEL—BERKELEY**

Noon

Return From Plant Tour and Adjourn

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**REGISTRATION FEES**

Advance registration by 31 August 2015: Member US$745, Non-member US$960. Registration fee after 31 August 2015: Member US$845, Non-member US$1,060. Registration fee includes continental breakfasts, lunches, and continuous breaks Tuesday and Wednesday, reception Wednesday, continental breakfast Thursday, plant tour, and a course workbook or flash drive including presentations.