

Agenda

University of Illinois Continuous Casting Consortium Meeting – May 10-11, 2004

Mathematical Models of Continuous Casting of Steel Slabs

Tentative

Attendees:	Nucor	Ron O'Malley, Jay Watson
	Accumold / SMS Demag	Don Lorento
	Swedish Inst. Metals Res.	Peter Andersson
	Algoma Steel	Bart Thompson, Bob Ackert?
	LWB Refractories	Rob Nunnington, Don Griffin?
	Postech	Dr. Seon-hyo Kim, Ho-Jung Shin
	Posco	-

University of Missouri-Rolla Jörg Peter

University of Illinois	Brian G. Thomas	Pratap Vanka
	Lifeng Zhang	Joydeep Sengupta
	Meng Ya	Seid Koric
	Quan Yuan	Bin Zhao
	Jun Aoki	Bret Reitow
	Chunsheng Li	Jiambo Jiang

May 10

8:00 am	Introductions	Coffee in conference room: 143 Mech. Eng. Bldg.
8:15	B.G. Thomas:	"Overview of projects"
8:30	Quan Yuan	"Transient Studies of Turbulent Flow and Particle Transport in Water Models and Continuous Slab Casters Using LES"
9:30	Lifeng Zhang	"Multiphase flow, inclusion nucleation, growth, removal and entrapment – in molten steel and continuous casting"
10:15	break	
10:30	Bin Zhao, BG Thomas	"Transient Heat Transfer in Slab Casting Molten Pool using LES"
10:45	Jun Aoki:	"Ladle mixing and inclusion removal by bubbles"
11:30	BG Thomas Bret Rietow	"New flow projects: eg. SEN gas flow, funnel mold flow, "Measuring mold top surface velocities using nailboards"
11:45	Discussion of flow projects	
12:15 pm	Lunch	143 Mech. Eng. Bldg
12:45	Ya Meng	"Modeling interfacial flux layer phenomena in the shell / mold gap using CON1D"
1:45	Ho-Jung Shin	"Investigation of oscillation marks and hook formation in ULC steels using metallurgical analysis and models"

2:30	Chunsheng Li	"FEM thermal stress model CON2D and example applications to ideal mold taper, & submold cracks"
3:00	Joydeep Sengupta:	"Application of CON2D to meniscus behavior"
3:15	Seid Koric	"Solidification Stress Modeling using Abaqus"
3:45	B. G. Thomas / J. Jiang	"Analysis of Water slot design in Beam-blank molds using FEM models of steady heat conduction, and future applications"
4:15	Jorg Peter / Lifeng Zhang	"Continuous Steelmaking – development of a new process to continuously melt, refine, and cast high quality steel ”
5:00	Discussion of future projects and directions	
5:30	Adjourn	

May 11

8:00am-?	B.G. Thomas Informal discussions on future projects	356 Mech. Eng. Bldg.
8:00am-?	Research group Informal discussions - Further details on current projects and software - CON1D and CON2D operation - Questions	345 Mech. Eng. Bldg.