

**I/UCRC: Center for Fundamental Studies of Advanced Sustainable Iron and Steel**  
**Draft Expanded Agenda for Planning Meeting**  
**Doubletree Hotel, Pittsburgh Airport**  
**8402 University Blvd, Moon Township**  
**Pittsburgh, PA 15108**  
**February 6, 2008**

**9:00-10:00 Session 1: Introductions and Overview**

9:00-9:15 Welcome and introductions

Introductions: Tahtinen (MTU); Kawatra (MTU); Sohn (UofU)  
Overview of MTU (location, research, history): Tahtinen  
Overview of Utah (location, research, history): Sohn  
Introduction of NSF Representatives  
Introduction of industry participants – All

9:15 - 9:45 The NSF I/UCRC Program – Alex/Babu (NSF)

9:45 – 9:55 Intellectual Property Issues in a Center – Baker (MTU)

9:55 – 10:00 Center Structure – Larsen (MTU)  
- Administrative structure (universities, oversight)  
- Governing Board  
- Membership agreements  
- Marketing and Financial Information

**10:00-10:30 Session 2: Research Interests and Activities of the University Partners**

Kawatra and Sohn provide 15 min overviews from each University, Vision and Focus  
- Introduction to Department(s) in which center will be based – Kawatra and Sohn  
- Proposed research areas of the new I/UCRC – Kawatra and Sohn

**10:30-10:45 Break** (coffee & snacks)

**10:45-12:00 Session 4a: Integrating Research Projects**

Begin discussion of shared interests. Refine center research areas by integrating research interests. Proposed research area will be chosen and discussed based on the interests of prospective members in attendance. Discussion of initial member interest and concerns.

Cover 7 of the research areas before lunch. Format will be 10 minute presentation of research area, followed by discussion with industry representatives.

- Overview of presentations; discussion of shared interests, initial member interest and concerns, and refinement of focus. After overview, some of the following research areas will be discussed:
  - Research Area 1: Metal/Slag Separation in Iron Nugget Production
  - Research Area 2: Comprehensive Kinetics and Impurity Behavior in the Suspension Reduction of Iron Oxide Concentrate
  - Research Area 3: Advanced Furnace Modeling
  - Research Area 4: Design and Optimization of 3<sup>rd</sup> Generation High Strength Steel Using the Combinatorial Approach and Mechanical Alloying Techniques
  - Research Area 5: High-Efficiency Removal of Mercury from Plant Emissions
  - Research Area 6: Effects of Binder Type on Pellet Breakdown and Dust Production
  - Research Area 7: Review of Iron Ore Pellet Binders and Organic Binders

**12:00-12:45 Lunch & Informal Discussion**

**12:45 - 2:00 Session 4b: Integrating Research Projects** (cover remaining areas)

Refine center research areas by integrating research interests. Proposed research areas will be chosen and discussed based on the interests of prospective members in attendance.

- Research Area 8: Flowsheet Development for Low-Grade Ores
- Research Area 9: Computational Fluid Dynamic Modeling of Iron (BF and alternate) and Steelmaking and Refining Processes
- Research Area 10: Evaluation of Surface Chemistry Throughout Processing Plant, and Determination of Effects on Plant Performance
- Research Area 11: Suspension Reaction Treatment of Blast Furnace and Oxygen Steelmaking Reverts / Oxygen Steelmaking Reactor as an Energy-Efficient, Waste-Friendly Combustion System
- Research Area 12: Review of Technology for Online Moisture Analysis
- Research Area 13: Effects of Carbonate Minerals on Filtration Rates
- Research Area 14: Capture and Sequestration of CO<sub>2</sub> from Iron and Steelmaking

**2:00 – 2:15 Break (coffee and snacks)**

**2:15 – 3:15 Company Workshop (What other projects would you like to see?)**

**3:15 – 3:30 Feedback from company workshop (Designate an individual)**

**3:30 – 4:30 Review of LIFE Forms (NSF – Alex/Babu)**

**4:30 – 4:45 Closed Session with Industry Members (Alex/Babu)**

**4:45 - 5:00 Closing Remarks**