



2006 Annual Peer Review
July 25-27, 2006
Crystal City Doubletree Hotel, Arlington, VA

Agenda

TUESDAY, JULY 25th – DAY ONE

- 7:30 – 8:30 am **Registration/Continental Breakfast**
- 7:45 – 8:30 am **Reviewers' Breakfast**
- 8:30 – 8:40 am **Welcome - Program Overview and Purpose of Peer Review**
James Daley, U.S. DOE Superconductivity for Electric Systems
- 8:40 – 8:50 am **Opening Remarks**
Dr. Raymond Orbach, Under Secretary of Science, U.S. DOE
- 8:50 – 9:30 am **Basic Energy Sciences Collaboration**
George Crabtree, Argonne National Laboratory
- 9:30 – 9:55 am **Break**
- 9:55 – 10:05 am *Kevin Kolevar, Director, U.S. DOE Office of Electricity Delivery and Energy Reliability*
- 10:05 – 10:55 am **Superconductivity Partnership with Industry Project Updates - (approx. 10 minutes each)**
Chair: Paul Bakke, U.S. DOE Golden Field Office
Columbus Cable (AEP) *David Lindsay*
Albany Cable (Niagara Mohawk) *Charles Weber*
Long Island Cable (LIPA) *James Maguire*
Fault Current Limiter (SuperPower) *Roger Farrell*
- 10:55 – 11:45 am **HTS Market Readiness Study**
Forest Small, Steven Tobias, David Walls, Navigant Consulting
- 11:45 am – 1:00 pm **Luncheon Speaker on SuperVAR Machine**
Mike Ingram, Tennessee Valley Authority
- 1:00 pm **Commence Annual Peer Review**
(Note: Numbers in parentheses indicate presentation + question/answer time)

TUESDAY, JULY 25th – DAY ONE *(continued)*

JOINT 2nd GENERATION WIRE and STRATEGIC RESEARCH SESSION	SUPERCONDUCTIVITY PARTNERSHIP WITH INDUSTRY (SPI) SESSION
<p>1:00 – 2:25 pm Progress in Scale-Up of 2G Conductor at SuperPower (60+25) <i>Venkat Selvamanickam, Yi-Yuan Xie & Jodi Reeves (SuperPower Inc.)</i></p>	<p>1:00 – 1:45 pm SPI Readiness Review Program (30+15) <i>Steve Ashworth (LANL), Michael Gouge (ORNL), Paul Bakke (DOE-Golden)</i></p> <p>1:45 – 2:30 pm Cryogenic Dielectrics Research for Electric Power (30+15) <i>Isidor Sauers (ORNL)</i></p>
<p>2:25 - 2:45 pm Break</p>	<p>2:30 – 3:00 pm Break</p>
<p>2:45 – 4:10 pm Scale-Up of 2G HTS Wire Manufacturing at American Superconductor (60+25) <i>Steve Fleshler, Alexis Malozemoff, Martin Rupich (AMSC)</i></p> <p>4:10 – 5:40 pm Wire Development Group: Understanding and Engineering the Performance of 2G HTS Wire (60+30) <i>Martin Rupich (AMSC), Dean Miller (ANL), Matthew Feldmann (UW), Terry Holesinger (LANL)</i></p>	<p>3:00 – 3:45 pm LANL Contribution to GE HTS Generator Development (30+15) <i>Eric Schmierer (LANL)</i></p> <p>3:45 – 4:45 pm Current Status of the Flywheel Electricity System (40+20) <i>Michael Strasik (Boeing)</i></p> <p>4:45 – 5:15 pm Fault Current Limiter (20+10) <i>Roger Farrell (SuperPower Inc.)</i></p>
<p>5:40 pm Joint 2nd Generation Wire Strategic Research Session Adjourn for the Day</p>	<p>5:15 pm SPI Session Adjourn for the Day</p>
<p>5:45 – 7:00 pm Reception</p>	

WEDNESDAY, JULY 26th – DAY TWO

7:30 – 8:30am **Continental Breakfast**

*8:00 – 8:30 am **Reconvene Annual Peer Review**

Note: Numbers in parentheses indicate presentation + question/answer time

Strategic Research Session begins at 8:00 am and the 2G Wire and SPI Sessions begin at 8:30 am

2nd GENERATION WIRE SESSION	STRATEGIC RESEARCH SESSION	SUPERCONDUCTIVITY PARTNERSHIP WITH INDUSTRY (SPI) SESSION
<p>8:30 – 10:00 am ORNL-AMSC CRADA: Development of RABiTS-Based 2G Wires (60+30) <i>Amit Goyal, Mariappan Paranthaman (ORNL), and Wei Zhang (AMSC)</i></p>	<p>*8:00 – 9:20 am Buffer Layer Growth and the Thickness Dependence of J_c in Coated Conductor (60+20) <i>David Larbalestier, Chang-Beom Eom and Eric Hellstrom (University of Wisconsin)</i></p> <p>9:20 – 10:05 am Development of Texture and Critical Currents in 3-4 mm Thick YBCO films on RABiTS Substrates and AC Losses of YBCO on a Magnetic Substrate (30+15) <i>Vyacheslav Solovyov, Masaki Suenaga (BNL)</i></p>	<p>8:30 – 10:00 am Demonstration of a Pre-Commercial Long-Length HTS Cable System Operating in the Power Transmission Network (60+30) <i>James Maguire (AMSC), Frank Schmidt (Nexans), Tom Welsh (LIPA), Shawn Bratt (Air Liquide)</i></p>
<p>10:00 – 10:30 am Break</p>	<p>10:05 – 10:30 am Break</p>	<p>10:00 – 10:30 am Break</p>
<p>10:30 – 12:00 pm Multi-scale Characterization of Structure and Properties of Coated Conductors (60+30) <i>Terry Holesinger and Leonardo Civale (LANL)</i></p>	<p>10:30 – 12:00 pm New Directions in the Deposition of Fluorine-Free HTS Materials (60+30) <i>Jonathan Storer, Dave Christen (ORNL) & Bob Hammond (Stanford)</i></p>	<p>10:30 – 11:45 am Albany HTS Cable Project – Phase 1 Status (45+30) <i>Charles Weber (Superpower)</i></p>
<p>12:00 pm Luncheon</p>		

WEDNESDAY, JULY 26th – DAY TWO *(continued)*

2 nd GENERATION WIRE SESSION	STRATEGIC RESEARCH SESSION	SUPERCONDUCTIVITY PARTNERSHIP WITH INDUSTRY (SPI) SESSION
<p>1:00 – 2:00 pm Coordinated Characterization of Coated Conductors (45+15) <i>Ken Gray, Dean Miller, Victor Maroni (ANL)</i></p> <p>2:00 – 3:00 pm Electromechanical Studies for Superconductor Development (45+15) <i>Jack Ekin, Danko Van Der Laan, and Najib Cheggour (NIST-CO)</i></p>	<p>1:00 – 2:30 pm Epitaxial Coatings for Coated Conductors (60+30) <i>Mariappan Paranthaman, David Christen (ORNL)</i></p> <p>2:30 – 3:15 pm Conversion of Oxy-Fluoride Based Coated Conductors (30+15) <i>Michael Cima, (MIT)</i></p>	<p>1:00 – 2:15 pm High Temperature Superconducting Power Cable (50+25) <i>David Lindsay (Southwire Company), Jonathan Demko (ORNL)</i></p> <p>2:15 – 3:15 pm HTS Motor R&D (45+15) <i>Rich Schiferl (Rockwell) and Christopher Rey (ORNL)</i></p>
<p>3:00 – 3:30 pm Break</p>	<p>3:15 – 3:30 pm Break</p>	<p>3:15 – 3:30 pm Break</p>
<p>3:30 – 5:00 pm Conductor Design for HTS Applications (60+30) <i>Fred List, Robert Duckworth, Isidor Sauers (ORNL)</i></p>	<p>3:30 – 4:30 pm Phase Relations of High Tc Superconductors (45+15) <i>Winnie Wong-Ng and Lawrence Cook (NIST)</i></p> <p>4:30 – 5:20 pm Exploring New Directions in the Science and Technology of IBAD Texturing (35+15) <i>Vlad Matias (LANL)</i></p>	<p>3:30 pm Adjourn SPI Session</p>
<p>5:00 pm 2nd Generation Wire Session Adjourn for Day</p>	<p>5:20 pm Strategic Research Session Adjourn for Day</p>	
<p>5:20 – 6:30 pm Cash Bar and Light Snacks</p>		

THURSDAY, JULY 27th – DAY THREE

7:30 – 8:30am **Continental Breakfast**
 *8:15 – 8:30 am **Reconvene Annual Peer Review**

Note: Strategic Research Session begins at 8:15 am and the 2G Wire Session begins at 8:30 am

2 nd GENERATION WIRE SESSION	STRATEGIC RESEARCH SESSION
<p>8:30 – 9:45 am ORNL-SuperPower CRADA: Development of IBAD-Based 2G Wires (45+30) <i>Dominic Lee , Robert Duckworth (ORNL), and Venkat Selvamanickam (SuperPower)</i></p> <p>9:45 – 10:45 am All-solution Deposited coated Conductors (40+20) <i>Paul Clem, Michael Siegal (SNL)</i></p> <p>10:45 – 11:05 am Title III Update (15+5) <i>Ted Finnessy (AFRL)</i></p>	<p>*8:15 – 9:45 am Understanding and Pushing the Limits of Critical Current in Coated Conductors (60+30) <i>Steve Foltyn and Leonardo Civale (LANL)</i></p> <p>9:45 – 10:30 am Expanding the Set of Tools for Investigating and Improving Vortex Pinning (30+15) <i>Boris Maiorov (LANL)</i></p>
<p>11:05 am 2G Wire Session Adjourns</p>	<p>10:30 – 10:45 am Break</p>
	<p>10:45 – 11:30 am Non-Vacuum Deposition of Buffer Layers for YBCO Superconductor (30+15) <i>Raghu Bhattacharya (NREL)</i></p> <p>11:30 – 12:00 pm AC Loss and Stability Measurements on HTS Materials and Cryogenic Dielectric Studies (20+10) <i>Sastry Pamidi, Horatio Rodrigo (FSU)</i></p>
	<p>12:00 pm Strategic Research Session Adjourns</p>
<p>12:00 – 1:00 pm Luncheon</p>	<p>12:00 – 1:00 pm Luncheon</p>
<p>12:15 – 1:00 pm LANL/ORNL Highlight Summary</p>	
<p>1:00 pm Superconductivity Peer Review Meeting Adjourns</p>	
<p>1:00 pm – 3:00 pm <i>Optional</i> Cryogenic Dielectrics Roundtable (<i>located at the Doubletree Hotel</i>)</p>	