



2006 WIRE DEVELOPMENT WORKSHOP

January 31-February 1, 2006 • St. Petersburg Bayfront Hilton • St. Petersburg, Florida

Agenda

DAY 1, TUESDAY, JANUARY 31, 2006

7:00 am **Registration and Continental Breakfast**

8:00 am **Opening and Welcoming Remarks** - James Daley (DOE)

8:15 am **SESSION I - Status and Future of Coated Conductor R&D and Manufacturing**
Session Chairs: Jonathan Storer (Los Alamos National Laboratory) and Amit Goyal (Oak Ridge National Laboratory)

Overseas Efforts:

- ◆ Japan Bob Hawsey (ORNL) (10 min)
- ◆ Europe/China Dean Peterson (LANL) (10 min)
- ◆ Korea Vlad Matias (LANL) (10 min)

U.S. Industry Perspectives:

- ◆ SuperPower Venkat Selvamanickam (20 min)
- ◆ AMSC Marty Rupich (20 min)
- ◆ MetOx Lou Castellani (10 min)
- ◆ SCPower Woody Gibson (10 min)

Panel Discussion (Led by Chairpersons) (30 min)

10:15 am **Break**

10:30 am **SESSION II – Session II - Requirements for 2G Wire in Practical Applications**
Session Chairs: Stephen P. Ashworth (Los Alamos National Laboratory) and Michael J. Gouge (Oak Ridge National Laboratory)

- ◆ Introduction Mike Gouge (ORNL) (5 min)
- ◆ Cable Requirements David Lindsay (Ultera) (15 min)
- ◆ Transformer Requirements Tom Golner (Waukesha) (15 min)
- ◆ FCL Requirements Alex Malozemoff (AMSC) (15 min)
- ◆ Large Coil Requirements Chris Rey (ORNL) (10 min)
- ◆ Motor/Generator Requirements Alex Malozemoff (AMSC) (15 min)
- ◆ DOD Requirements Paul Barnes (AFRL) (15 min)
- ◆ Response from 2G Developers AMSC, SuperPower, others (30 min)

12:30 pm **Luncheon**

2:00 pm **SESSION III – Conductor Design and Engineering**

Session Chairs: Paul Barnes (Air Force Research Laboratory) and Chris Rey (Oak Ridge National Laboratory) (All talks 15 min)

- ◆ 2G Conductor Design/Properties I Alex Malozemoff (AMSC)
- ◆ 2G Conductor Design/Properties II Venkat Selvamanickam (SuperPower)
- ◆ Dielectric Insulation Isidor Sauers (ORNL)
- ◆ Stability/AC Loss/Dielectric Robert Duckworth (ORNL)
- ◆ Discussion of Dielectric/Quench Issues (Led by Chairpersons – 20 min)

3:20 pm **Break**

Agenda *(Continued)*

DAY 1, TUESDAY, JANUARY 31, 2006 *(Continued)*

3:40 pm **SESSION III – *(Continued)***

- ◆ AC Losses Steve Ashworth (LANL)
- ◆ Discussion of AC Loss Issues (Led by Chairpersons – 15 min)
- ◆ Mechanical Properties Danko van der Laan (NIST)
- ◆ Discussion of Mechanical Issues (Led by Chairpersons – 10 min)
- ◆ 2G Conductor for FCLs Yi-Yuan Xie (SuperPower, Inc.)
- ◆ Open Discussion of Session III (Led by Chairpersons – 15 min)

5:00 pm **Adjourn for Day**

6:00 pm **Dinner**

8:00 pm **SESSION IV – The Road to Commercialization**

Session Chair: James Daley (DOE)

- ◆ **Topic 1: Cultivating a Massive Market** (30 min)
Speaker: Paul Grant (W2AGZ Technologies)
- ◆ **Topic 2: Getting the Metrics Right** (30 min)
Speaker: David Lindsay (Ultera)
- ◆ **Topic 3: The Story on Title III** (30 min)
Speaker: Ted Finnessy (US Air Force)

Agenda *(Continued)*

DAY 2, WEDNESDAY, FEBRUARY 1, 2006

7:00 am **Continental Breakfast**

8:00 am **Concurrent Sessions**

◆ Conductor Track – Sessions V and VI

◆ Cable Track – Session VII

8:00 am

SESSION V – Opportunities for “Substantive” Technical Advances
Session Chair: Dean Miller (Argonne National Laboratory)

◆ **Topic 1: New Vistas in Flux Pinning**
Speaker: Alex Gurevich (University of Wisconsin/Madison) (30 min)

◆ **Topic 2: Ultra-Simple/Cost-Effective Buffer Layer Approaches**
Speaker: Paul Arendt (Los Alamos National Laboratory) for IBAD Substrates (30 min)
Speaker: Parans Paranthaman (Oak Ridge National Laboratory) for RABiTS Substrates (30 min)

Concurrent SESSION VII – Cable Generic Issues

Session Chair: Michael J. Gouge (Oak Ridge National Laboratory)

Introductions: James Daley (DOE), Paul Bakke (DOE-GO) (15 min)

◆ **Topic 1: Thermal-Hydraulic Issues in Cold Dielectric Cables: Over-Pressure Protection and Code Compliance**
Speakers: Jim Maguire (AMSC), Chuck Weber (SP), Jonathan Demko (ORNL) (15 min each + 30 min roundtable)

9:30 am **Break**

Break

9:45 am

SESSION VI – Late Breaking News (formerly the “Rump Session”)
Session Chair: Parans Paranthaman (Oak Ridge National Laboratory)

This session will consist of 10 to 12 five-minute (two to three slide) presentations of recent, unpublished research results pertinent to the development of the 2G conductor and to insights concerning improved conductor architecture. These presentations will be solicited at the workshop.

◆ **Topic 2: Lightning Surges and Voltage Transients on Cryostat**
Speaker: Prit Chowdhuri (TN Tech) (30 min)

◆ **Topic 3: Flexible Cryostat Configurations, Vacuum Reliability and Lifetime Issues**
Speaker: Mike Gouge (ORNL) (30 min)

11:00 am **Summary Session**

12:00 pm **Adjourn/Luncheon**

Technical Steering Committee

Victor Maroni (Argonne National Laboratory)

Dominic Lee (Oak Ridge National Laboratory)

Vlad Matias (Los Alamos National Laboratory)

Marty Rupich (American Superconductor)

Selva Selvamanickam (SuperPower, Inc.)