



Interagency/Stakeholder Glass Strength Workshop

Meeting Minutes

21 January, 2010, Washington, DC

Attendance:

Winthrop Baylies (BayTech Group); Wayne Boor (PPG); Charles Brossia (GMIC); John Brown (GMIC); Adrian Casas (NSG/Pilkington); Carol Click (O-I); Christine DeJong (ASTM International); Tanya Dolby (Kawner Company); Edward Etzlcorn (DOE); Joel Feingold (Strainoptics, Inc); Steve Freiman (Freiman Consulting); Michael Greenman (GMIC); Chuck Kurkjian (U.So.ME); Chien-Wei Li (DOE); Lynnette Madsen (NSF); Kirk Marchand (Protection Engineering Consultants); Louis Mattos (Coca Cola); Ron Palmer (MS State U); Carlo Pantano (Penn State U); Glenn Strahs (DOE); Doug Trenkamp (O-I); Peter Votruba-Drzal (PPG); Jonathan Williams (NSG/Pilkington);

Facilitators: Mauricio Justiniano (Energetics); Chris Zach (Energetics)

Meeting Purpose

- Develop support for glass strength initiative to involve federal agencies, glass users, glass companies and related organizations.
- Develop outline for May 20 Workshop in Corning, NY.

Conclusions and Actions

- Fundamental pre-competitive research is essential to fully understand elements related to glass strength that each company can take forward on its own to make proprietary improvements to specific glass types.
- A White Paper on research needs and opportunities would be useful to identify opportunities for agencies to react to: What is possible, why it is important, what do we need to do to get there?
- Standards will need to be developed for stronger glass, as market demand for product performance is driven by existing standards.
- Focusing on one sector to drive the market-based demand for improved strength will raise the profile of the issue for the rest of the glass industry. Container sector has shown itself to consider strength a higher priority than other sectors at this time.

Action Items

- **Potential Workshop Titles – SST and CRT decide**
 - “Damage and how to protect against it”
 - “Glass: Stronger than steel”
 - “Opening new windows on the world of glass by increasing its usable strength”
 - “Breaking the glass barrier – the age of stronger glass”
 - “Building the next “glass strength research coalition” “
 - “Glass strength – building a research coalition”
 - “Breaking the glass ceiling on glass strength”
 - “Building strength for a global glass coalition”
 - “Saving the glass industry through strength”
 - “Building a stronger glass industry”
 - “Strengthening the glass industry”
 - “Glass strength – building a global industry, university, and government research coalition”

- **Prior to May 20 Workshop**
 - Executive Committee - Strategic Plan conclusions finalized
 - SST - Survey results available from companies
 - CRT - prepare abstracts for each topic area so priorities can be identified and formalized
 - Prepare brief presentation on status of field – work done, knowledge gaps
 - For each area identify 3 key areas for research with goals, brief estimate of likely impact of success, time frame, costs, PIs and coalition needs
 - SST have strawman ready describing overall benefits of strength to industry, supply chain, government agencies

- **Workshop Activities**
 - Possibility of several tours on May 19, prior to workshop
 - Dinner with Keynote Speaker evening of May 19
 - **May 20 Workshop** - Present Strategic Plan details
 - Present results of survey
 - CRT presentations
 - SST Strawman
 - Rank projects
 - Identify in priority order research areas to pursue,
 - Identify coalitions of glass companies, universities, stakeholders, agencies to move each forward.
 - How move forward, what’s missing?

- Suggestion for Luncheon Keynote Speaker: “Open Innovation”
 - Or “Submerged Combustion Melter” – intra-industry coalition – an example that worked.
- **Following Workshop**
 - SST develop individual white papers for each approved research need, targeted to companies and agencies.
 - One over-arching white paper on glass and importance of strength
 - Develop magazine article(s)
 - SST with GMIC officers, visit glass companies to obtain needed support
 - SST, with company representatives and university/researchers – visit government agencies to present proposals, or submit proposals during existing RFPs.