

ASME/SRNL Materials and Components for Hydrogen Infrastructure Codes and Standards Workshop and the DOE Hydrogen Pipeline Working Group Workshop



Sponsored by SRNL, ASME, and DOE
Center for Hydrogen Research, Aiken, SC
Garden Conference Center
September 23-26, 2007

AGENDA

Sunday, September 23, 2007

- 6:00 – 7:30 pm Registration
- 6:15 – 7:30 pm Opening Reception
- *Sponsored by ASME*

Monday, September 24, 2007

Joint Materials and Components for Hydrogen Infrastructure Codes and Standards Workshop

- 8:00 am Continental Breakfast
- 8:30 am Welcome
- **Natraj Iyer**, Director, Material Science & Technology, Savannah River National Laboratory (SRNL)
- 8:45 am Opening Remarks
- **Cheryl Cabbil**, Acting Laboratory Director, SRNL
- 9:00 am Overview of ASME Hydrogen Codes and Standards Development
- **John Koehr**, ASME
- 9:30 am Material and Component Issues for Gaseous Hydrogen Service
- **George Rawls**, SRNL
- 10:15 am Break
- 10:30 am DOT Hydrogen Program
- **William Chernicoff**, U.S. Department of Transportation, Research and Innovative Technology Administration

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and the

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AGENDA *(continued)*

- 11:30 – 1:00 pm Lunch
SC Hydrogen Coalition Presentation
- **Fred Humes**
- 1:00 pm Development of a 15,000 psig Fitting for Hydrogen Service
- **Shelly Tang**, Swagelok
- 1:45 pm ASME B31.12 Hydrogen Piping Code
- **Lou Hayden**, Chairman B31.12
- 2:30 pm Break
- 2:50 pm Development of Code Rules for 15,000 psi H₂ Vessels
- **Mahendra Rana**, Praxair, Chairman H₂ High Pressure Vessels
- 3:35 pm Composite Vessels for Hydrogen Service
- **Norm Newhouse**, Lincoln Composites
- 4:20 pm Adjourn
Dinner on Own

Tuesday, September 25, 2007

**ASME/SRNL Materials and Components for Hydrogen Infrastructure
Codes and Standards Workshop**

- 7:30 am Continental Breakfast
- 8:00 am Meeting Announcements
- 8:10 am Opening Remarks
- **Mark Paster**, U.S. Department of Energy (DOE)
- 8:30 am DOE Hydrogen Delivery Program Overview
- **Tim Armstrong**, Oak Ridge National Laboratory (ORNL)
- 9:00 am Material Testing for Hydrogen Pipelines (and Storage Vessels)
- Results... NIST Workshop on Materials Test Procedures for Hydrogen Pipelines: **Dave McColskey**, NIST
 - Testing Subgroup Workshop on Critical Property Needs: **Tim Armstrong**, ORNL
 - ASME Material Testing Priorities for H₂ Infrastructure: **Lou Hayden**
 - Discussion: **All**

11:30 am Hydrogen Delivery Analysis Models
■ **Mark Paster**, DOE

12:00 – 1:30 pm Lunch

Tuesday, September 25, 2007

DOE Hydrogen Pipeline Working Group Workshop

1:30 pm Mechanical Properties of Structural Steels in Hydrogen
■ **Brian Somerday**, Sandia National Laboratories

2:30 pm Hydrogen Embrittlement: Fundamentals, Modeling, and
Experiments
■ **Petros Sofronis**, University of Illinois, Materials Research
Laboratory

3:30 pm Break

3:45 pm Permeation, Diffusion, Solubility Measurements: Results
and Issues
■ **Zhili Feng**, ORNL
■ **Thad Adams**, SRNL

4:45 pm Pipeline and Pressure Vessel R&D Under the Hydrogen
Regional Infrastructure Program in Pennsylvania
■ **Kevin Klug**, Concurrent Technologies Corporation

5:30 pm Adjourn

Wednesday, September 26, 2007

DOE Hydrogen Pipeline Working Group Workshop

8:00 am Materials Solutions for Hydrogen Delivery in Pipelines
■ **Subodh Das**, Secat

9:00 am Composite Technology for Hydrogen Pipelines
■ **Bart Smith**, ORNL
■ **Thad Adams**, SRNL

10:00 am Break

10:30 am Pipeline Working Group Discussion and Path Forward

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AGENDA *(continued)*

11:30 am Adjourn