MINUTES OF THE JUNE 2007 TELECONFERENCE OF THE NATIONAL HYDROGEN AND FUEL CELLS CODES & STANDARDS COORDINATING COMMITTEE

MEETING DATE: June 6, 2007
MEETING TIME: 3:00 PM (ET)

MEETING PARTICIPANTS

A list of participants is shown in Attachment A.

1.0 Roll Call – Russ Hewett

Russ began the meeting by welcoming everyone and re-iterating that the Coordinating Committee is a collaborative activity of DOE, the National Hydrogen Association (NHA), the US Fuel Cell Council (USFCC) and NREL.

In the sprit of collaboration, the partners have agreed to rotate the facilitating of the monthly meetings. For June, it was NREL's turn.

2.0 Reviewed Anti-Trust Guidelines – Robert Wichert, Sondra Ullman

Participants were asked to be mindful of the anti-trust guidelines:

Antitrust Guidelines (27Kb PDF)

3.0 Reviewed and approved the REVISED minutes of the May teleconference meeting.

No further corrections were necessary. Draft 3 was approved without any changes. Consequently, they will be posted on the NHA Hydrogen Safety Report website.

4.0 DOE Headquarters Update – Pat Davis / Antonio Ruiz

Antonio Ruiz reported on activities at DOE/HQ. Antonio thanks everyone for their participation in the DOE Hydrogen Program Annual Merit Review held during the period 15 - 18 May. He expects the report documenting the review and scores to be published in early September.

The DOE Hydrogen Program 2007 Annual Progress Report is expected to be out by about the time of the USFCC 2007 Fuel Cell Seminar, scheduled for October 15 - 19 in San Antonio, TX.

For FY07, full request appropriation made it possible for DOE to fund efforts that had to be curtailed in the past due to funding shortfalls. Work in hydrogen detection technology, such as sensors, has benefited from this increased funding.

For FY08, the Program is requesting $16.0 million, an increase of over $2.0. million from FY07. This will allow for continued sensor technology work and other R&D efforts.

5.0 California Hydrogen Motor Fuel Quality Standard – John Mough

John Mough provided an update. Dennis Johannes and Ed Williams and Roger Macy and Lorraine Casey and Gary Castro joined John Mough on the call.

The proposed draft specification and regulation for hydrogen fuel has been updated on the web site. A developmental fuel variance is also now included in the program.
Seehttp://www.cdfa.ca.gov/dms/hydrogenfuel/HydrogenFuel.htm for the details. Comments are being solicited through August 31st and should be provided to John Mough at jmough@cdfa.ca.gov . A 45 day comment period will follow. The requirement for a regulation by January 1, 2008 still stands.

Participating with John in the meeting, to assist John in providing the update, were the following persons from DMS:

- Dennis Johannes
- Ed Williams
- Roger Macy
- Lorraine Casey

6.0 California Hydrogen Motor Fuel Dispenser Standard – Gary Castro (John Mough)

Gary Castro and other staff members are reviewing information on this topic provided by Juana Williams. There is no mandated date of publication for additional standards.

Juana Williams' report (141Kb PDF)

Whether this draft will apply to gaseous hydrogen blends or not is not established yet.

There is no set deadline for adoption of this draft code. The work of the committee on this code is being made available to other stakeholders. The goal is to establish appropriate uniform standards for dispensers used to deliver hydrogen. The National Conference on Weights and Measures, Inc. is involved in these issues.

The process for developing a new code is as follows:

1. A new code is introduced before the National Conference on Weights and Measures and the Conference votes on the code.

2. If approved, NIST would publish the code in their publication handbooks.

3. Once the handbook is published, the states would be able to adopt the handbook or portions of the handbook into state law and the states are responsible for enforcing the state laws.

   The National Conference on Weights and Measures is also responsible for evaluating apparatus for measuring hydrogen based on these same codes, before the States accept these devices for use in commerce.

NIST is currently funded to work on developing hydrogen standards. A five year plan is being developed and will be made available to interested parties. The first project is to establish codes for metrology of hydrogen meters. A first draft has been distributed. A second draft based on comments will be issued shortly. A national working group is being developed, and industry experts are needed to participate. The working group will hold its first meeting in August or September to further develop the draft code. Quality standards may be incorporated into the codes. Safety practices will also be developed for sampling hydrogen products and inspection of hydrogen dispensers. Dispensers for gaseous and liquid dispensers will need to be addressed. In addition, hydrogen blends will need to be addressed.

The International Organization of Legal Metrology is also working on specifications for these devices. NIST is developing a U.S. position on these draft standards.

Education and promotion regarding the hydrogen economy within the weights and measures community is also being developed.

Field trials of the test procedures based on the codes that have been developed will follow the code development.

Training materials will need to be developed and subsequent training sessions will be held that include visits to field sites to demonstrate how hydrogen equipment operates and should be tested.

Inspection and test of higher pressure hydrogen systems (up to 10,000 psi) may be challenging since the prior experience at NIST is with CNG systems at lower pressures (3600 psi).

7.0 Report on Hydrogen Industry Panel on Codes (HIPOC) Activities – Darren Myers, Patrick Serfass, Tom Joseph, Carl Rivkin

Patrick Serfass reported on the ICC Final Action Hearings just completed. Many hydrogen proposals were submitted, mostly on the International Fire Code. Not all proposals were debated on the floor at the Final Action Hearings. Some were passed in a mass vote called the "consent agenda." The result of the current ICC cycle is to publish a supplement to the latest version of the model codes. Nine out of the fifteen proposals were approved and three of the remaining six were withdrawn. The others were disapproved by the ICC membership. The electrostatic discharge proposal was adopted to establish the required conductivity of the fueling pad. The language will apply to gasoline stations also. A technical problem with the units of resistivity was also flagged at the meeting and will be corrected. At the hearings, the HIPOC learned that since California has adopted the ICC Codes to take effect in 2008, there will be an increased presence of Californian permitting officials present at future hearings. It will be prudent, given their interest in hydrogen and level of activity in the state, to make sure future proposals are vetted with them so future issues can be addressed in a timely manner.

NFPA 52 and NFPA 55 comments and proposals were submitted recently. The comment period just closed on May 25.

The next open meeting of the HIPOC is as follows:

HIPOC Meeting REVISED DATE June 12th, 2007
Date: 06/12/2007
Start Time: 11:00 AM US/Eastern
Duration: 90 minutes
Presenter: Tom Joseph, HIPOC Chair

8.0 NNFPA Activities: NFPA 2 – Carl Rivkin, Marty Gresho

The annual NFPA meeting is just closing up. A consent document was filed on NFPA 30A to add some requirements for hydrogen referencing NFPA 52. This effectively ties NFPA 30A and NFPA 52 together for hydrogen fuels. The proposal closing date for NFPA 52 and 55 was May 25. Several hundred proposals were received for each. A meeting in June will discuss these issues.

The hydrogen siting project results were presented by Hughes at the NFPA meeting.

The technical committee for NFPA 2 is in the midst of their work. Regular meetings are being held. The full NFPA 2 Committee will meet this fall. The target publication date is fall of 2009.

The meeting dates are as follows:

- NFPA 55 / (Industrial and Medical Gases Technical Committee): June 26-28, 2007 Cincinnati, OH (3 full days)

- NFPA 52/ (Vehicular Alternative Fuel Systems Technical Committee): July 17-19, 2007 Redondo Beach, CA (3 full days)

- NFPA 2 / (Hydrogen Technology Technical Committee): October 23-25, 2007 Oakland Bay area (3 full days)

9.0 IEC TC 105 – Kelvin Hecht

Kelvin Hecht's report (82Kb PDF)

10.0 ISO TC 197 – Debbie Angerman

Debbi Angerman's report (81Kb PDF)

13.0 Other Code Developing Organization and Standards Developing Organization Updates

No reports

14.0 Next Meeting

Theoretically, the next meeting would be a Teleconference Meeting on July 4th. Due to the holiday, the meeting will be held on July 5th.

Teleconference Meeting on July 5th
3:00 PM US Eastern Time
Call In Number: +1 641 594 7000
PIN: 824011#

ATTACHMENT A: PARTICIPANTS IN THE MAY 2007 TELECONFERENCE MEETING OF THE NATIONAL HYDROGEN AND FUEL CELLS CODES & STANDARDS COORDINATING COMMITTEE

NAME	ORGANIZATION	PRESENT AT MEETING (Yes/No)
Adam Gromis	California Fuel Cell Partnership	
Andrei Tchouvelev	A. V. Tchouvelev & Associates, Inc.	
Anna Stukas	Angstrom Power	Yes
Antonio Ruiz	USDOE/Hydrogen, Fuel Cell and Infrastructure Technologies Program	Yes
Bill Chernicoff	USDOT/Research and Innovative Technologies Administration(RITA)/Washington	

Bill Collins	UTC Fuel Cells	
Bill Hoagland	Hoagland and Associates	
Brad Smith	Shell Hydrogen	
Carl Rivkin	National Fire Protection Association (NFPA)	Yes
Carolyn Elam	DOE Golden Field Office	
Cathy Gregoire-Padro	Los Alamos National Laboratory (LANL)	
Chris Sloane	General Motors	
Christina Zhang-Tillman	California Fuel Cell Partnership	
Christopher Moen	Sandia National Laboratories/Livermore	
Dan Casey	ChevronTexaco	Yes
Darren Meyers	International Code Council (ICC)	
David McClosky	USDOC/NIST	
Debbie Angerman	Compressed Gas Association (CGA)	
Doug Horne	Clean Vehicle Education Foundation	Yes
Gary Nakarada	Regulatory Logic	Yes
Glen Schleffler	Consultant to NREL	
Greg Milewski	Shell Oil Products	
Hank Seiff	Clean Vehicle Education Foundation	
Holly Thomas		Yes
Jacquelyn Birdsall		Yes
Jesse Schneider	DaimlerChrysler	
Jim McGetrick	BP	
John Koehr	American Society of Mechanical	

	Engineers (ASME)	
John Mough	California Division of Measurement Standards	Yes
Jonathan Muntez	U.S. DOE	Yes
Jonathan Otero	BP	Yes
Juana Williams	NIST	Yes
Julie Cairns	CSA America	
Karen Hall	National Hydrogen Association (NHA)	
Kelvin Hecht	ANSI, IEC and Consultant to NREL	Yes
Ken Krastins	Plug Power	Yes
Larry Moulthrop	Proton Energy Systems	Yes
Laurie Florence	Underwriter Laboratories	
Lesley Crowell	California Air Resources Board	
Mark Richards	Versa Power Systems	
Michael Sprague	Enersol, Inc.	
Michael Steele	General Motors Advanced Technology Vehicles	Yes
Nha Nguyen	NHTSA/Office of International Policy and Harmonization	
Nick Burkhead	Shell Hydrogen	
Pat Davis	USDOE/Hydrogen, Fuel Cell and Infrastructure Technologies Program	
Patrick Flynn	Enersol, Inc.	
Patrick Serfass	National Hydrogen Association (NHA)	Yes
Paul Bouchard	Energy Conversion Devices	Yes
Paul Buehler	Plug Power, Inc.	Yes
Prentiss Searles	American Petroleum Institute (API)	Yes

Robert Wichert	US Fuel Cell Council (USFCC)	Yes
Rhoads Stephenson	Motor Vehicle Fire Research Institute	Yes
Roger Smith	Compressed Gas Association (CGA)	
Ron Coiner	CSA America	
Sam Sprik	National Renewable Energy Laboratory (NREL)	
Samuel Lam	British Columbia Ministry of Transportation	Yes
Sheral Arbuckle	Ford Motor Company	
Sondra Ullman	Plug Power	Yes
Terry Conrad	Concurrent Technologies Corp.	
Thad Adams	Savannah River National Laboratory	
Tom Joseph	Air Products and Chemicals	
Tony Androsky	US Fuel Cell Council (USFCC)	
Jim Ohi	National Renewable Energy Laboratory (NREL)	
Russ Hewett	National Renewable Energy Laboratory	Yes

Guests
Ben Deal (California Air Resources Board) – subbing for Leslie Crowell

Harry Jones (Underwriter Laboratories) – subbing for Laurie Florence

Gary Castro (California Department of Food and Agriculture/Division of Measurement Standard)

Dennis Johannes (California Department of Food and Agriculture/Division of Measurement Standard)

Ed Williams (California Department of Food and Agriculture/Division of Measurement Standard)

Roger Macy (California Department of Food and Agriculture/Division of Measurement Standard)

Lorraine Casey (California Department of Food and Agriculture/Division of Measurement Standard)