

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

Russell Hewett, National Renewable Energy Laboratory

MEETING DATE: April 11, 2007

MEETING TIME: 1:00 - 2:30 PM (MST)

1.0 MEETING PARTICIPANTS

Russ Hewett was on business travel, and asked the USFCC and NHA to facilitate this meeting. Sondra Ullman (USFCC) called roll and welcomed everyone. A list of participants is shown in [Attachment A](#).

2.0 REVIEW OF ANTI-TRUST POLICY

USFCC members were asked by Sondra Ullman to be mindful of the anti-trust guidelines:

[Antitrust Guidelines](#) (27Kb PDF)

3.0 REVIEW OF/CORRECTIONS TO DRAFT PROCEEDINGS OF MARCH 2007 IN-PERSON MEETING

A number of revisions were suggested as follows:

1. Andrei Tchouvelev actually participated
2. The name of one of the "Guest Participants" is incorrect - The correct name for Paul Williams is Dr. Paul Williamson (University of Montana)
3. Item #8: last paragraph -Juana Williams made a comment on NIST work, indicating the standard requires 1.5% for both new devices and type evaluation devices. In addition, rather than Jim Whetstone, Juana Williams should be listed as the point of contact from NIST on the draft.
4. Item #9 4th paragraph - typo - "a few tears ago" should read "a few years ago".
5. Add to the end of item #9: *Following the meeting, Debbie Angerman reported the following "update": The ISO/TC 197 US TAG meeting will not be May 3. It has been postponed, and a date has not yet been set.*

Karen Hall indicated the changes would be made directly to the online PROCEEDINGS.

4.0 OPPORTUNITY FOR DOE/HQ REPRESENTATIVE TO PROVIDE LATEST INFORMATION ON WHAT'S GOING ON AT DOE

Neither Pat Davis nor Antonio Ruiz was able to participate in the call. Jim Ohi noted that DOE is currently working on the FY 08 budget.

5.0 REPORT ON HYDROGEN SENSOR WORKSHOP HELD ON APRIL 4th

Cathy Gregoire-Padro reported that the workshop went well, with nearly 50 attendees, including a diverse group of interests, such as OEMs, SDOs, fuel cell manufacturers, sensor manufacturers, etc. The presentations have already been posted at:

<http://www.lanl.gov/orgs/mpa/mpa11/sensor.html>

The breakout session results and a workshop summary will also be posted there soon.

6.0 REPORT ON HYDROGEN INDUSTRY PANEL ON CODES (HIPOC) ACTIVITIES

Russ Tom Joseph described three proposals that HIPOC has submitted to ICC for consideration in the International Fire Code (IFC). One is on an overpressure relief device (F-154), which was recommended for approval as submitted in the Code Development Hearings. HIPOC expects this proposal to be approved at the Final Action hearings, May 21-26 in Rochester, NY.

The second is proposal F-155 for indoor fast-fill fueling. This was recommended for disapproval by the ICC committee. HIPOC plans to withdraw this proposal and refine it for the 2009 I-Codes as it can use some more work before it goes in the IFC.

The third is proposal F-156 relating to the vehicle fuelling pad. It was also recommended for disapproval by the ICC committee. HIPOC has been addressing the issues and plans to proceed with this proposal by seeking approval at the Final Action Hearings. The results of the Code Development Hearings for proposals involving hydrogen topics, as well as the proposals themselves and public comments (where available) can be found at:

<http://www.hydrogenandfuelcellsafety.info/latest/iccHearings.asp>

Patrick Serfass reminded participants that HIPOC is an open forum for developing code change proposals, and invited interested parties to feel free to bring proposals to HIPOC for feedback and assistance. Those who are interested in submitting a proposal to the I-Codes or NFPA Codes can find instructions on how to submit a proposal by visiting this page:

<http://www.hydrogenandfuelcellsafety.info/hipoc/proposals.asp>

Proposals can be reviewed by the HIPOC by sending them to any staff person:

<http://www.hydrogenandfuelcellsafety.info/hipoc/about.asp>

Tom noted that the NFPA 2 Technical Committee is meeting next week in Detroit. This presents an additional opportunity to bring code change proposals to the CDO Technical Committees for assistance.

7.0 OPPORTUNITY FOR JOHN MOUGH TO PROVIDE STATUS REPORT ON THE CALIFORNIA HYDROGEN FUELS PROJECT'S EFFORTS TO DEVELOP A HYDROGEN FUEL QUALITY STANDARD

Unfortunately, John Mough had a previous commitment, and could not participate this month. He indicated he would try to participate next month. Robert Wichert indicated he would try to stop by to see Mr. Mough.

8.0 OPPORTUNITY FOR GARY CASTRO TO PROVIDE STATUS REPORT ON THE CALIFORNIA HYDROGEN FUELS PROJECT'S EFFORTS TO DEVELOP A HYDROGEN FUEL DISPENSER STANDARD

Unfortunately, Gary Castro also had a previous commitment, and could not participate this month. He indicated he would try to participate next month.

9.0 REPORT ON ISO/TC197 ACTIVITIES AND DOCUMENTS IN THE "COMMENTS" STAGE

Because Debbie Angerman reiterated that the US TAG meeting for ISO TC 1978 has been postponed. A new date is to be determined. It may be scheduled for the fall.

The document ISO CD 26142, on hydrogen sensors is out for comment. It has already been circulated to the US TAG. Participants in this meeting who would like to review the CD are invited to request a copy from Debbie. Input is needed. A teleconference is being scheduled for the last week in April to address this topic.

10.0 REPORT ON IEC/TC105 ACTIVITIES, DOCUMENTS IN THE "COMMENTS" STAGE AND THE HYDROGEN AND FUEL CELLS CODES & STANDARDS MATRIX AND DATABASE

Kelvin Hecht announced that WG 5 – Installation, will meet next week in Cleveland. The Plenary is scheduled for October 25 and 26 in Paris. No documents are out for comment currently.

Kelvin reported the statistic on the website he maintains, www.fuelcellstandards.com. Kelvin stated the mission of the website is to maintain a real-time status of all hydrogen and fuel cell codes and standards. The data is organized in a matrix, which can be searched by geographic location or application. The site also contains a calendar of codes & standards events, an electronic bulletin board, and a job listing. A recent posting on the job board relates to codes and standards at NREL, and may be of interest to those on this call. There have been many postings regarding shipboard applications on the bulletin board lately.

Kelvin reported the following website use statistics for March:

- Visits: 5,759 (about 200/day) – 90% are US queries. Of the 10% that are international, nearly half come from China.
- Pages: 12,000 were visited in March. The most popular were:
 - ASME B31.12
 - SAE Interface Working Group
 - UL 2264
 - IEC TC 105 WG 7 – Portable
 - CSA HGV4

There were also over 600 downloads – mainly the Matrix.

[IEC/T105 Report](#) (108Kb PDF)

11.0 OPPORTUNITY FOR CDOs AND SDOs TO REPORT ON THEIR ACTIVITIES (AS APPROPRIATE)

SAE – Mike Steele reported that the SAE working group meetings will take place the week of May 21st, rather than May 14th. Glenn Scheffler added that the Safety WG and Interface WG would meet different days that week so that the experts could participate in both. He stated the Safety WG is preparing a revision to J2578.

There were no other reports.

12.0 OTHER BUSINESS/ NEXT TELECONFERENCE MEETING

The group agreed that the next teleconference would be May 2nd at the usual time.

13.0 PROPOSED NEXT IN-PERSON MEETING

The group discussed options for the next in-person meeting. One proposal was for having it at SAE on Thursday afternoon, June 21st, immediately following the SAE Fuel Cell Vehicle Standards full committee meeting. There was also interest in exploring co-locating an in-person meeting with the US TAG meeting for ISO TC 197, which may be held in the fall. Perhaps the Fuel Cell Seminar would be a good candidate. Debbie Angerman agreed to look into this possibility. The group indicated a preference for holding in-person meetings when issues warranted it, and acknowledged the value of face-to-face meetings. Jim Ohi

acknowledged that the Fuel Cell Seminar and NHA Conference are two ideal co-location possibilities. The group agreed to include this item on the May 2 teleconference agenda to determine whether an in-person meeting is needed in June, or whether it is best to wait until the Fuel Cell Seminar in October.

With respect to the next in-person meeting, the group discussed possibilities for topics for focused discussion.

Karen Hall asked whether there is sufficient interest from the OEMs in discussing the ongoing work on dispensers. If so, it might be worthwhile to hold a meeting in the Detroit area this summer.

Rody Stephenson suggested that indoor parking is not yet being adequately addressed, and that it should be discussed. Glenn Scheffler pointed out that SAE is addressing this from the vehicle perspective. Jesse Schneider added that NFPA deals with it from the building perspective.

Jim Ohi thanked Sondra Ullman for facilitating today's meeting. He explained that NREL, the USFCC and the NHA would be rotating this duty. The NHA will facilitate the May teleconference.

ATTACHMENT A: PARTICIPANTS IN THE APRIL 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.	Yes
Anna Stukas	Angstrom Power	
Antonio Ruiz	USDOE/Hydrogen, Fuel Cell and Infrastructure Technologies Program	
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)	
Carolyn Elam	DOE Golden Field Office	
Cathy Gregoire-Padro	Los Alamos National Laboratory (LANL)	Yes

Chris Sloane	General Motors	
Christina Zhang-Tillman	California Fuel Cell Partnership	
Christopher Moen	Sandia National Laboratories/Livermore	Yes
Dan Casey	ChevronTexaco	
Darren Meyers	International Code Council (ICC)	
David McClosky	USDOC/NIST	
Debbie Angerman	Compressed Gas Association (CGA)	Yes
Doug Horne	Clean Vehicle Education Foundation	
Gary Nakarada	Regulatory Logic	Yes
Glen Schleffler	Consultant to NREL	Yes
Greg Milewski	Shell Oil Products	
Hank Seiff	Clean Vehicle Education Foundation	Yes
Jesse Schneider	DaimlerChrysler	
Jim McGetrick	BP	Yes
John Koehr	American Society of Mechanical Engineers (ASME)	
John Mough	California Division of Measurement Standards	
Jonathan Muntez	U.S. DOE	Yes
Jonathan Otero	BP	
Juana Williams	NIST	Yes
Julie Cairns	CSA America	
Karen Hall	National Hydrogen Association (NHA)	Yes
Kelvin Hecht	ANSI, IEC and Consultant to NREL	Yes
Ken Krastins	Plug Power	

Larry Moulthrop	Proton Energy Systems	
Laurie Florence	Underwriter Laboratories	
Lesley Crowell	California Air Resources Board	
Mark Richards	Versa Power Systems	Yes
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	Yes
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	
Paul Buehler	Plug Power, Inc.	Yes
Prentiss Searles	American Petroleum Institute (API)	
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	
Sheral Arbuckle	Ford Motor Company	
Sondra	Plug Power	Yes

Ullman		
Terry Conrad	Concurrent Technologies Corp.	
Thad Adams	Savannah River National Laboratory	
Tom Joseph	Air Products and Chemicals	Yes
Tony Androsky	US Fuel Cell Council (USFCC)	
Jim Ohi	National Renewable Energy Laboratory (NREL)	Yes
Russ Hewett	National Renewable Energy Laboratory	