

**National Hydrogen and Fuel Cell Codes and Standards Coordinating Committee
(NHFCCSCC)**

Wednesday, October 3, 2012
TIME: 3:00 – 4:30 pm (Eastern Daylight Time)

Minutes

Attendees

Anthony Androsky
Bob Boyd
Connor Dolan
Ernst Baumgartner
Greg Chirdon
Jesse Schneider
Jill Thompson
Jim Ohi
John Mough

John Moncrief
Juana Williams
Julie Weis
Julie Cairns
Karen Hall
Kelvin Hecht
Kevin Schnepf
Kevin Smith
Mike Steele

Norm Newhouse
Norman Ingram
Robert Davidson
Rody Stephenson
Ron Nies
Steve Cook
Steve McDermitt
Steve Tucky
Spencer Quong

1 Welcome and Housekeeping Items

Review of anti-trust guidelines

http://www.fchea.org/core/import/PDFs/ANTITRUST_GUIDELINES.pdf

Review of or corrections to draft meeting agenda

Agenda approved.

Review of or corrections to September draft minutes

September meeting minutes approved for posting on the hydrogenandfuelcellsafety.info website.

2 DOE/HQ Update

Antonio Ruiz

No update at this time.

3 C&S Events and Fuel Cell Safety Information

http://www.fuelcellstandards.com/calendar_new.html
<http://www.hydrogenandfuelcellsafety.info/meetings.asp>

Kelvin Hecht
Karen Hall

To update with CSA meetings from CSA update.

<http://www.h2incidents.org/>

Steve Weiner

4 Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

WG#1 (IEC 62282-1 Ed.3 – *Definitions*)

WG will meet November 7 in conjunction with TC105 Plenary

WG#4 (IEC 62282-3-201 Ed.1 – *Stationary Fuel Cells – Performance for small fuel cells*)

WG will meet November 5 in conjunction with TC105 Plenary

WG#6 (IEC 62282-4-101 – *Forklift – Safety*)

CD posted September 14 for review. Comments to USTAG
on title and scope changes by October 12.
on CD draft by November 16.

WG#7 (IEC 62282-5-1 Ed.2 – *Portable Fuel Cells*)

Published September 18.

WG#8 (IEC 62282-6-100 am 1 – *Micro Fuel Cells – Safety*)

FDIS approved. To be published in October.

WG will meet November 5-7 in conjunction with TC105 Plenary

WG#10 (IEC 62282-6-300 Ed.2 – *Micro Fuel Cells – Fuel Cartridge Interchangeability*)

CDV approved. To be published by November

WG#10 (IEC 62282-6-400 - *Micro Fuel Cells – Power & Data Interchangeability*)

CD posted August 3 for review. Comments to USTAG by October 12.

WG will meet November 6-7 in conjunction with TC105 Plenary

WG#11 (IEC 62282-7-2 – *Single Cell / Stack Performance for SOFC*)

2nd CD posted September 28. Comments to USTAG by November 9

WG#12 (IEC 62282-3-400 – *Small Stationary Fuel Cells with Combined Heat and Power Output*)

WG will meet November 6-7 in conjunction with TC105 Plenary

TC105 Plenary

Kyoto, Japan November 8-9

Teleconference on October 8 for US TAG to discuss agenda

Workshop November 12

University of Yamanashi (JEMA)

Standards, Regulations, Codes and Conformity Assessment Procedures

Japan

China

Korea

Europe

North America

ISO TC 197

Jill Thompson

1. Recent ballots

- Vote on nominee for ISO/TC 197 Chairman
Dr. Andrei Tchouvelev was unanimously approved as the new ISO/TC 197 Chairman.
- ISO/DIS 14687-3, *Hydrogen fuel — Product specification — Part 3: Proton exchange membrane (PEM) fuel cell applications for stationary applications*

TAG votes were due August 31. The proposed position for this ballot is "Approve." The ISO ballot ends on October 31.

2. Pending ballot

- ISO/FDIS 14687-2, *Hydrogen fuel — Product specification — Part 2: Proton exchange membrane (PEM) fuel cell applications for road vehicles*
TAG votes are due October 17. The ISO ballot ends on November 14.
- ISO/DIS 15399, *Gaseous hydrogen — Cylinders and tubes for stationary storage*
TAG votes are due November 15. The ISO ballot ends on December 27.
Anticipate a TAG webconference will be needed to determine U.S. position before ISO ballot ends.

3. Upcoming meeting

- ISO/TC 197 plenary
The initial proposed meeting date of October 29-30 for working group meetings and October 31 for plenary meeting was not acceptable to ISO/TC 197 members. Therefore, additional dates in February 2013 (14th, 21st, or 28th) were offered; a U.S. delegation could attend a plenary meeting on either the 14th or the 28th.

NFPA ICC

Martin Gresho
Robert Sale

Bob Davidson gave a report on ICC.

Code change – modification to replace ASME B31.3 with ASME B31.12. That change will show up in the next edition of the fuel gas code.

CSA

Josip Novkovic

CSA provided a PowerPoint update which was reviewed by the Committee.

www.fchea.org/core/import/PDFs/CSA-Group-Update-2012-09-27.pdf

UL

Laurie Florence

Laurie Florence provided a PowerPoint update prior to the meeting for the Committee to review. Karen Hall reviewed the PowerPoint as Laurie was unable to attend the meeting.

www.fchea.org/core/import/PDFs/UL-Update-2012-09-20.pdf

Laurie also provided the following question from UL's Principal Engineer for micro fuel cell category, Alex Liang. Alex asked what technologies would FCHEA like the IHC committee to focus on first? Of course, they will be formally harmonizing with the complete IEC document, but FCHEA members response may help the IHC committee's initial focus for developing any USA differences.

SAE

Mike Steele

Next Quarterly meeting is November 13, 14, and 15.

Safety Working Group – SAE 1766 to ballot state, SAE 2579 harmonization ongoing
2600 – just passed fifth affirmation ballot. Submitted to motor vehicle council. No further actions to be taken. Probably another month and a half before publicly available.

Jesse Schneider – progress being made on simulation group. Main testing document to be submitted to the Department of Energy is ongoing. In lieu of funding, automotive companies have stepped up to move forward. Daimler and BMW have supplied funding. BMW for fueling confirmation at Powertech.

ASTM

Tommy Rockward

Tommy Rockward provided an email update following the meeting copied below:

I completed the officer training course held at ASTM. The last ASTM conference call required addition information to solidify results. Air Liquide was contacted and is in the process of verifying and identifying the gas cylinders (constituents, concentrations, along with the testing facility) that were used in the FTIR Interlaboratory Study (FTIR ILS 851) that was conducted to confirm measurements of low concentrations of contaminants in gaseous hydrogen fuel. All of the testing has been complete but to make use out of the data we need this information.

5 Discussion Topics**Regulatory Matrix Review and Comment**

Karen Hall

<http://www.fchea.org/core/import/PDFs/Regulatory-Matrix-8-29-12.pdf>

Any updates can be supplied to Karen Hall at khall@fchea.org.

Permitting and Installation of Hydrogen Fueling Stations

Ca FCP Station Implementation Team

Jennifer Hamilton

Submitted a response to the Draft Program Opportunity Notice from the California Energy Commission

Submitted reply to the DOE RFI for high-pressure hydrogen metering

The CaFCP Working Group agreed that the bi-weekly SI team meetings will move to be the monthly Working Group calls, and that SI team will continue to complete individual projects with sub-teams

Ca DMS Metrology

Norman Ingram

Parts continue to be received and assembled as they arrive. Dispensing is expected to begin in early December.

Rody Stephenson – Is the regulation in place in California for legal dispensing of hydrogen or are we waiting for these tests?

Norman Ingram – Were looking at legislation to improve advertising and signage. A legislative champion may be needed. As far as the device is concerned, awaiting confirmation.

Bob Boyd – Governor Brown in California has developed a 2012 ZEV Action Plan, still in draft form. Lumps FCEVs and BEVs in the same category and looks at how to stimulate growth in these industries.

More information on the plan is available at:
[http://opr.ca.gov/docs/Draft2012ZEVActionPlan\(09-21-12\).pdf](http://opr.ca.gov/docs/Draft2012ZEVActionPlan(09-21-12).pdf).

One of the issues is chargers, which has come up. Someone has been championing in Connecticut, a study has been published stating EVs benefit to grid is grid stabilization. That is giving power back to grid at critical times during the day by plugging the battery into the grid. There is a lack of standards to plug a BEV into the grid outside of the home.

Ca DMS Fuel Quality

Ron Nies

Still coming along and working with instrumentation. Working to resolve some problems. Presentations possible at the ASTM meeting in December.

Regulations are in place now to sell hydrogen by kilogram. Now we are just waiting on an approved dispenser. As far as signage, there are approved signs for stations, working out inconsistencies now.

SAE TIR J2601 Compliance

Jesse Schneider

Draft solicitation out from Clean CEC that currently references both with equal billing 2601 and CSA 4.3 for the use of specifying the fueling procedure for the 30 h2 stations that are being funded for CA. Industry input generated at industry orgs such as CAFCP, SAE International, and Autos. Indirectly used as the specifying compliance effectively, helpful for standards.

Hydrogen Fuel Quality and Measurement

NIST

Juana Williams &
Marc Buttler

No updates at this time.

6 Open Discussion & Other Issues

It was suggested to provide a computer link for the audio for the webinar in the future. This will be looked into for the future.

NFPA 2 discussion for future meetings – comment cycle ends on January 1.

Bob Davidson – the goal is to have NFPA 2 integrated into the International Fire Code.

Largest issue is overuse of electrical classification class 1, div 1 electrical area.

A PowerPoint will be put together and sent to Connor Dolan and Karen Hall for dissemination.

Anyone interested in participating in these conversations, please contact Connor Dolan at cdolan@fchea.org.

Burning issues will be set up through other working groups and task forces.
The next meeting of the NHFCCSCC will be December, 5, 2012 – 3:00 PM EST.