

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

Wednesday, February 6, 2013  
TIME: 3:00 – 4:30 pm (Eastern Daylight Time)

**Minutes**

**Attendees**

**Anthony Androsky  
Brian Ladds  
Bob Boyd  
Carl Rivkin  
Chad Blake  
Connor Dolan  
Doug Horne  
Ernst Baumgartner  
Greg Chirdon  
Jay Keller  
John Grimes**

**John Mough  
Joseph Cohen  
Juana Williams  
Julie Cairns  
Julie Weis  
Karen Hall  
Kathleen O'Malley  
Larry Moulthrop  
Laurie Florence  
Marc Butler  
Marcia Poxson**

**Martin Gresho  
Mike Steele  
Norman Ingram  
Robert Wichert  
Ron Nies  
Spencer Quong  
Steve Tucky  
Thomas Prevish  
Tim McGuire  
Will James**

**1 Welcome and Housekeeping Items**

Review of anti-trust guidelines

[http://www.fchea.org/core/import/PDFs/ANTITRUST\\_GUIDELINES.pdf](http://www.fchea.org/core/import/PDFs/ANTITRUST_GUIDELINES.pdf)

Meeting agenda approved.

January draft minutes approved.

**2 DOE/HQ Update**

Nha Nguyen

Will James – Secretary of Energy Chu will be staying on through the end of the month. There is no information available on a replacement. On the Fuel Cell Office level, nothing new to report. Safety, Codes and Standards has scheduled a webinar which will be announced later this month on hydrogen refueling.

**3 C&S Events and Fuel Cell Safety Information**

[http://www.fuelcellstandards.com/calendar\\_new.html](http://www.fuelcellstandards.com/calendar_new.html)

Kelvin Hecht

<http://www.hydrogenandfuelcellsafety.info/meetings.asp>

Karen Hall

**4 National Renewable Energy Laboratory Presentation** Chad Blake, Carl Rivkin

*Carl Rivkin gave a presentation titled, "Progress in Codes and Standards Development for Hydrogen Technologies."*

<http://www.fchea.org/core/import/PDFs/Codes-and-Standards-Progress-2-13.pdf>

## 5 Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

### Active Working Groups

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

Preparation of draft for TC105 voting is in progress. Publication expected 1<sup>st</sup> half of 2013.

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

FDIS approved. Publication expected by April 2013.

WG#6 (IEC 62282-4-100 – *Fuel Cell Systems for Forklift Applications – Safety*)

CD in progress.

WG#8 (IEC 62282-6-101 – *Micro Fuel Cells – Safety*)

2<sup>nd</sup> edition in progress

WG#9 (IEC 62282-6-200 Ed.2 – *Micro Fuel Cells – Performance*)

FDIS approved. Publication expected by March 2013.

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

CD in progress.

WG#11 (IEC TS 62282-7-2 *Single Cell – Test Methods For Solid Oxide Fuel Cells*)

CD in progress.

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

CD in progress.

Next meeting February 21-22, Paradise Hotel, Busan, Korea.

ISO TC 197

Jill Thompson

### 1. Recent ballots

- **N563**, vote on cancellation of ISO 15869, *Gaseous hydrogen and hydrogen blends — Land vehicle fuel tanks*  
ISO ballot ended January 22. U.S. responses to two questions (**Yes** to cancellation, **Abstain with comment** to restart) submitted to ANSI; had to be submitted as Yes/No to provide comment
- **N564**, vote on cancellation of ISO 20100, *Gaseous hydrogen — Fuelling stations*  
ISO ballot ended January 22. U.S. responses to two questions (**Yes** to cancellation, **Yes** to restart) submitted.

## 2. Upcoming meeting

- Plenary, February 28, in Montreal

Working group meetings being held in conjunction with plenary:

- WG 16, *Basic considerations for the safety of hydrogen systems*, February 26
- WG 17, *Pressure swing adsorption system for hydrogen separation and purification*, February 27

NFPA

Martin Gresho

NFPA 2 public input closed. Received 225 public inputs (4x the number of inputs received compared to previous). The first meeting will be held on June 4 – 7 (extended by one day to allow all proposals to be addressed).

ICC

Robert Sale

Code hearings in Dallas.

CSA

Julie Weis

CSA update presentation provided. The presentation is available online at <http://www.fchea.org/core/import/NHFCCSCC/CSA-Group-Update-2013.01.31.pdf>.

HDTA Status Update

Ken Loewenthal

Nothing new to report.

UL

Laurie Florence

Nothing new to report at this time.

SAE

Mike Steele  
Jesse Schneider

Mike Steele – SAE meetings are being held March 5 – 7. Glenn, Chair of Safety working group has cancelled all meetings for his documents, J1766, 2578, 2579. No technical meetings will be held on these. Interface working group covering documents J2600, 2601, 2601-2, and 2601-3, meetings will be held on March 5 – 6. Plenary session will be held on March 7.

Bob Boyd – 2601-2 is a bus standard fueling protocol. 2601-3 is HPIT, this is out for a 28 day ballot. So far received 3 approvals and no disapprovals, a few technical comments. Hope to be able to address all issues on 2601-3 at the March meetings.

Mike Steele – A substantial number of meetings have been held over the past weeks on 2601.

ASTM

Tommy Rockward

No update at this time.

## 6 Discussion Topics

Regulatory Matrix Review and Comment

Karen Hall

<http://www.fchea.org/core/import/FCHEA-Regulatory-Matrix-Feb-6-2013.pdf>

Please send any comments to Karen Hall by email at [khall@fchea.org](mailto:khall@fchea.org) by COB Wednesday, February 13, 2013.

### Permitting and Installation of Hydrogen Fueling Stations

Ca FCP Station Implementation Team

Jennifer Hamilton

No updates at this time.

Ca DMS Metrology

Norman Ingram

Starting data collection on 35 MPa dispensing.

Ca DMS Fuel Quality

Ron Nies

There was a problem with one of the instruments, but it has been repaired. We are now hitting the ground running. Hoping to start stations next month, gathering samples and running them through the instrumentation.

SAE TIR J2601 Compliance

Jesse Schneider

Mike Steele – There has been a lot of testing going on. Stuff is likely coming to a head at the March meeting on the 5<sup>th</sup>. You will be able to call in to that meeting.

### Hydrogen Fuel Quality and Measurement

NIST

Juana Williams &  
Marc Buttler

International Hydrogen Device Standards

#### ***OIML R 139 “Compressed gaseous fuel measuring systems for vehicles”***

The Secretariat (the Netherlands) has forwarded the second committee draft (2CD) of part 1 and part 2 of OIML R 139 for comment and vote of Technical Committee 8/Subcommittee 7 (TC 8/SC 7) for Project 4 by its March 2013 deadline. Part 1 the “Metrological and Technical Requirements” and Part 2 the “Metrological Controls and Performance Tests” will be combined. Part 3 the “Test Report” will be developed after the TC 8/SC 7 reaches a consensus on Parts 1 and 2.

The 2CD of OIML R 139 is a revision of the first committee draft (February 2012) and a compilation of comments the Secretariat received in May, August, and December 2012 as well as points the International Working Group (IWG) agreed on at the IWG November 2012 meeting in Delft, the Netherlands.

On January 23, 2013, NIST OWM distributed the 2 CD of OIML R 139-1 and -2 to the OIML R 139 U.S. National Work Group for comment to develop a U.S. position and vote by the March 2013 deadline. U.S. National Work Group comments should be submitted to NIST OWM by **March 13, 2013.**"

#### Device Test Procedures Update

NIST OWM is moving forward with plans to conduct field trials of gravimetric and alternative test methods. Data will be collected to refine uncertainty analyses of these test methods. Procurement of some of the necessary equipment continues to prove challenging. NIST would appreciate any information regarding potential sources of suppliers that could provide fully assembled certified tanks with the fittings necessary for use in gravimetric testing.

Please contact Marc Buttler by email at: [marc.buttler@nist.gov](mailto:marc.buttler@nist.gov), if you have questions or wish to discuss field test equipment and/or test procedures used to determine the metrological performance of commercial hydrogen dispensing equipment.

## **7 Open Discussion & Other Issues**

Next Meeting – Wednesday, March 13, 2013 at 3:00 – 4:30 PM Eastern.