

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

Wednesday, June 6th, 2012

TIME: 3:00 – 4:30 pm (Eastern Daylight Time)

<https://www1.gotomeeting.com/register/254270352>

Dial: 1-218-936-4141

Access Code: 4502347#

Minutes

Attendees

**Antonio Ruiz
Bruce Johnson
Chad Blake
Connor Dolan
Jay Keller
Jennifer Hamilton
Jill Thompson**

**Jim Ohi
Josip Novkovic
Juana Williams
Julie Weis
Karen Hall
Kelvin Hecht
Mike Steele**

**Robert Wichert
Ron Nies
Spencer Quong
Steve Tucky
Thomas Previs**

1 Welcome and agenda additions

The Committee approved the agenda.

2 Review of or corrections to May draft minutes

The Committee approved the May draft minutes. They will be posted on the hydrogenandfuelcellsafety.info website shortly.

3 DOE/HQ Update

Antonio Ruiz

DOE Annual Merit Review update – The event was well attended with over 1,900 registered attendees and 2,600 reviews. More information is available at <http://www.annualmeritreview.energy.gov/>. More comment will be available at the next meeting.

The President's Budget Request for the Fuel Cell Technologies Program remains at \$80 million. The House mark is at \$82 million and the Senate mark is \$104 million.

4 C&S Events and Fuel Cell Safety Information

http://www.fuelcellstandards.com/calendar_new.html

Kelvin Hecht

The Fuel Cell Standards calendar was reviewed.

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

Karen Hall

The Hydrogen and Fuel Cell Safety Calendar was reviewed.

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

Steve Weiner

A new posting is available in the Lessons Learned Corner (LLC) on the Hydrogen Incident Reporting and Lessons Learned website. “Ventilation of Facilities where Hydrogen is used” can be accessed at http://www.h2incidents.org/ll_corner/lessonlearned_ventilation.asp. It covers lessons learned from three laboratory incidents and four incidents that occurred in industrial or power plant facilities, and also contains links to the Hydrogen Safety Best Practices website for more detailed information about ventilation system design. Previous installments of the LLC are available in the archives at http://www.h2incidents.org/ll_corner/ll_archives.asp.

5 Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

- WG#3 (IEC 62282-3-100 – *Stationary Fuel Cells - Safety*)

- CSA FC1 has started the process to adopt (with USA deviations)
- ANSI/CSA 62282-3-100

- WG#4 (IEC 62282-3-201 Ed.1 – *Stationary Fuel Cells – Performance for small fuel cells*)
 - USTAG voted to approve CDV with comments
 - WG to meet July 2-4 in Frankfurt, Germany
- WG#5 (IEC 62282-3-300 Ed.1 – *Stationary Fuel Cells – Installation*)

NFPA 853 – Installation of Stationary Fuel Cells
Initial meeting for 2015 edition; Oct.31-Nov.1
NFPA Headquarters – Quincy, MA

- WG#7 (IEC 62282-5-1 Ed. 2 – *Portable Fuel Cells*)
 - FDIS posted June 1.
 - Voting terminates August 3.
- WG#8 (IEC 62282-6-100 am 1 – *Micro Fuel Cells – Safety*)
 - CDV of Amendment 1 approved and listed as an FDIS
 - WG to meet in Quebec City June 12-14.
- WG#9 (IEC 62282-6-200 Ed.2) *Micro Fuel Cells – Performance*
 - FDIS posted May 4.
 - Voting terminates July 6.

- WG#12 (IEC 62282-3-400 – *Small Stationary Fuel Cells with Combined Heat and Power Output*)
 - WG to meet in Frankfurt July 5-6
- TC105 Plenary
 - Kyoto, Japan November 8-9
 - 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

June 2012 Update

ANSI-Accredited U.S. TAG for ISO/TC 197, *Hydrogen technologies*

Pending ballots

- ISO/FDIS 17268, *Gaseous hydrogen land vehicle refueling connection devices*
TAG votes are due by June 15, and the ISO ballot ends on July 14.
- ISO 14687-3, *Hydrogen Fuel — Product Specification — Part 3: Proton exchange membrane (PEM) fuel cell applications for stationary appliances*, TAG votes are due by August 31, ISO ballot ending October 31.

A request was sent to US TAG members to review the list of experts on the TC 197 WG. If you received that list and know if someone is no longer active, please provide that information to Jill Thompson at jthompson@cganet.com.

NFPA

No updates at this time.

ICC

The Dallas hearings have finished on the Cycle A codes. The hearing results will be published in two days on June 8. A public comment period will take place at the results of that hearing. The final hearing will be in Portland Oregon in October.

The Fire Codes, Group B code, code change proposals are due January 3, 2013.

CSA

The CSA Update is available online at <http://www.fchea.org/core/import/CSA-June-2012.pdf>.

UL

No updates at this time.

SAE

The SAE Fuel Cell Standards Committee will meet in Troy, Michigan on June 14.

The SAE AE7 on Aircraft Hydrogen Fuel Cell Systems group will meet on June 19 – 20 in Hamburg, Germany.

Others

6 Discussion Topics

HIPOC Discussion

The Department of Energy has decided that the mission as originally envisioned for HIPOC has been met. Discussions are ongoing with FCHEA on the continuation of the hydrogen code change proposals.

Furthermore, all of the members of HIPOC have been added to this group.

Regulatory Matrix Review and Comment

Karen Hall

Karen has reformatted the Regulatory Matrix and the Matrix is currently going through the various FCHEA working groups and task forces for further comment and revision. The revised Matrix will be brought to the NHFCCSCC at the next meeting for discussion.

Permitting and Installation of Hydrogen Fueling Stations

Connection Devices and Sensors

Robert Wichert

Robert Wichert has an action item to speak with the nozzle manufacturers to join the July meeting.

A Hydrogen Sensors Workshop was held recently. The Workshop did not discuss any hydrogen sensors at repair facilities. The sensors in repair facilities are required to have listing from UL. Chad Blake will look into why this was not discussed.

CaFCP Station Implementation Team

Jennifer Hamilton

At the upcoming CaFCP Steering Team meeting, the SI team will work to address items that are keeping stations from developing; the ‘elephants in the room’. Jennifer Hamilton will not be present for that meeting, so Bill Elrick and Jordan McRobie will lead those discussions. Feedback can be given at the July NHFCCSCC meeting as to any pertinent action items that come out of the Steering Team meeting.

Deliverables from the SI Team have come from Carl Rivkin at NREL: an informational two-page document on the Ca Environmental Quality Act (CEQA- [found here](#)) and is working to finalize a Ca permitting template for hydrogen stations by the end of this month. That document will be posted in various locations, TBD by the team, including the Emergency Responder web site along with other permitting information.

CA DMS Metrology

Norman Ingram

Ron Nies – No updates at this time.

CA DMS Fuel Quality

John Mough

SAE TIR J2601-3 Compliance

Bob Boyd

A meeting will be held next Wednesday.

Hydrogen Fuel Quality and Measurement

ASTM D03.14

Jennifer Hamilton

A new chair of ASTM D03.14 will be voted in next month. Tommy Rockward of Los Alamos National Laboratory will be added to the NHFCCSCC roster.

NIST

Juana Williams & Marc Buttler

(1) U.S. Weights and Measures Standards Development Process

Fuel Quality Regulation-U.S. National Work Group Ballot

The May 2nd ballot results are in for the U.S. National Work Group (USNWG) for the Development of Commercial Hydrogen Measurement Standards' position on the alternate recommendation to modify the proposed new "hydrogen fuel" definition for NIST Handbook 130 (HB 130) by the deleting the term "surface" (i.e., surface vehicle) from the definition. The USNWG did not agree to further modifications of the proposed new definition; therefore, the term "surface" will remain part of the definition.

Regional Weights and Measures Associations Update

The Northeastern and Central Weights and Measures Associations met in May 2012 and agreed to support the adoption of the proposed new hydrogen fuel quality specification and corresponding definitions for NIST Handbook 130.

National Forum Update

The National Conference on Weights and Measures (NCWM) has posted comments submitted to its online position forum for the proposals to add a new hydrogen fuel specification and related definitions to NIST Handbook 130. Members of the NCWM submitted comments in support of the proposal. There were no comments opposing any hydrogen agenda items.

(2) International Hydrogen Device Standards

OIML R 81 "Dynamic measuring devices and systems for cryogenic liquids"

A first committee draft (1 CD) of R 81 Part 1: Metrological and technical requirements and Part 2: Metrological controls and performance tests is still under internal review at NIST. The 1 CD is now scheduled for distribution in June 2012 to national stakeholders and OIML Technical Committee 8/Subcommittee 6 for their review and comment.

OIML R 139 "Compressed gaseous fuel measuring systems for vehicles"

The Secretariat (the Netherlands) has distributed the first committee draft (1 CD) of R 139 for comment. NIST OWM will distribute the draft by Friday June 8, 2012 for input from national stakeholders so that a U.S. position can be developed on the draft document. Comments will be due by July 9, 2012.

Please contact Juana Williams by email at: juana.williams@nist.gov for additional information or to be added to the distribution list for the draft documents.

7 Open Discussion & Other Issues

Connor Dolan will include an agenda item next month for a possible in-person meeting of the Committee at the November Fuel Cell Seminar and Exposition 2012.

The next meeting will be held via conference call and webinar on Wednesday, July 11th at 3:00 PM EDT.