

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

Wednesday, August 1, 2012
TIME: 3:00 – 4:30 pm (Eastern Daylight Time)

Minutes

Attendees

Aaron Harris	Glen Rambach	Julie Weis
Anthony Amato	Jay Keller	Karen Hall
Anthony Androsky	Jennifer Hamilton	Kelvin Hecht
Antonio Ruiz	Jesse Schneider	Mike Steele
Bob Boyd	Jill Thompson	Robert Ingram
Bryan Clever	Jim Ohi	Robert Sale
Carl Rivkin	John Moncrief	Spencer Quong
Chad Blake	Josip Novkovic	Steve McDermitt
Connor Dolan	Juana Williams	Tim McGuire

1 Welcome and agenda additions

2 Review of or corrections to July draft minutes

July minutes approved.

3 DOE/HQ Update

Antonio Ruiz

There will be a continuing resolution for the next 6 months. The implications of this CR are yet unknown.

Mid-October there is a planned workshop to look at non-metallic materials that need to be considered more proactively.

There will be an IEA Hydrogen Implementation Agreement workshop in D.C. the first week of October.

DOE is working to tackle the challenges of metrology.

SAE TIR J2601 Compliance progress is also being tracked.

4 C&S Events and Fuel Cell Safety Information

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

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

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

Kelvin Hecht

Karen Hall

Steve Weiner

5 Codes and Standards Organization Updates

IEC TC 105

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 met July 2-4 in Frankfurt, Germany
- WG will meet November 5 in conjunction with TC105 Plenary

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

- FDIS posted June 1.
- Voting terminates August 3. USTAG voted to approve.

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

- FDIS posted July 13
- Voting terminates September 17
- WG will meet November 5-7 in conjunction with TC105 Plenary

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

- FDIS approved July 13

WG#10 (IEC 62282-6-301 - *Micro Fuel Cells – Power & Data Interchangeability*)

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

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

- WG met in Frankfurt July 5-6
- WG will meet November 6-7 in conjunction with TC105 Plenary

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

1. Recent ballot

ISO/FDIS 17268, *Gaseous hydrogen land vehicle refueling connection devices*

The ISO ballot ended on July 14. The TAG approved the FDIS but submitted an editorial comment regarding figures in three Annexes. A preliminary result of voting was distributed to the TAG; the FDIS was "**Approved.**"

2. Pending ballot

ISO/FDIS 14687-3, *Hydrogen fuel — Product specification — Part 3: Proton exchange membrane (PEM) fuel cell applications for stationary applications*

TAG votes are due by August 31, and the ISO ballot ends on October 31.

3. Recent meeting

Working Group 15, *Gaseous hydrogen — Cylinders and tubes for stationary storage*

Meeting held July 16-17 in Paris.

4. Proposal

There is a proposal to development new international standard on pressure swing adsorption systems for hydrogen separation and purification. The ballot was closed earlier this year and approved. As a result a new WG has been formed, WG #17.

Anyone interested in participation can contact Jill to be registered.

NFPA

No updates at this time.

ICC

Reminder – Final action hearing will be held in October. There are a couple of proposals – the fuel gas code and mechanical code – which involve hydrogen provisions. These will be voted on October 24th – 28th.

The Group B codes, which include the fire code, proposals are due by January 3.

CSA

CSA's update is available online at [www.fchea.org/core/import/PDFs/!CSA-Group-Update-\(2012-07-30\).pdf](http://www.fchea.org/core/import/PDFs/!CSA-Group-Update-(2012-07-30).pdf).

UL

No updates at this time.

SAE

September 11 - 13 meetings will be held. The 11th interface and safety working group – 12th overflow and interface issue and safety working group, 13th is plenary.

See J2601 update for further information.

ASTM

No update at this time.

6 Discussion Topics
Regulatory Matrix Review and Comment Karen Hall

<http://hydrogenandfuelcellsafety.info/pdf/FCHEA-Regulatory-Matrix-July-31-2012.pdf>

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

Permitting and Installation of Hydrogen Fueling Stations

Connection Devices and Sensors Robert Wichert

This item will be removed from the agenda for future meetings.

Ca FCP Station Implementation Program Jennifer Hamilton

The Station Implementation Program – input to California Energy Commission docket on station performance criteria is being sought, this will be a partnership document. Though J2601 is the performance guideline to be referenced, CA cannot reference J2601 in the solicitation as it is not yet a standard. The solicitation is planned to be issued in September, awards in October.

Anyone interested in input to the CEC solicitation can contact Jennifer Hamilton at JJHamilton@cafcp.org.

A California Hydrogen Station roadmap has also been published. Anyone interested in obtaining a copy can contact Jennifer at JJHamilton@cafcp.org.

Ca DMS Metrology Norman Ingram

No updates at this time.

Ca DMS Fuel Quality John Mough

No updates at this time.

SAE TIR J2601 Compliance Jesse Schneider

J2601 was published in 2010 as a guideline, close to publishing as a standard. There is no ISO or IEC equivalent. There is only J2601 for hydrogen fueling. It is being used in Japan, Germany, and CA.

This is a Light Duty vehicle guideline. There has been very positive experience to date, there is some room for improvement.

J2601 is a standard that will be published in the next 6-9 months.

J2601 Standard defines fueling station dispenser type by capability to dispense hydrogen fuel at a specific nozzle “pre-cooled temperature. Pre-cooling directly affects fueling time.

Infrared data will be incorporated into the standard. IrDa is being taken from J2799.

The difference between the guideline and standard is largely filling in the gaps found in the guideline.

Hydrogen Fuel Quality and Measurement

NIST

Juana Williams & Marc Buttler

U.S. Weights and Measures Standards Development Process

National Forum Update

The 97th National Conference on Weights and Measures (NCWM) met July 15-19, 2012 in Portland, Maine. The NCWM voted to adopt Laws and Regulations Committee Agenda Items:

- **232-7** (a proposal to modify the existing NIST Handbook (HB) 130 Method of Sale Regulation definition of hydrogen fuel),
- **237-9** (a proposal to recognize the most recent version of SAE J2719 as the hydrogen fuel quality standard in the NIST HB 130 Engine Fuels and Automotive Lubricants Regulation), and
- **237-10** (a proposal for adding definitions of the terms hydrogen fuel, ICE, and fuel cell vehicle to the NIST HB 130 Engine Fuels and Automotive Lubricants Regulation).

All three proposals are available for your review on the NCWM website at:

http://ncwm.net/sites/default/files/meetings/annual/2012/L%26R%20docs/2012_Pub16_LR.pdf.

This newly adopted language will be published in the 2013 edition of NIST Handbook 130. The States adopt the Handbooks, in part or entirety, as law and enforce these standards for regulating commercial measurements.

7 Open Discussion & Other Issues

Antonio – Anyone that knows of meters that can meet the specs for J2601 and the NIST metrology tolerance requirements, please contact Antonio Ruiz at antonio.ruiz@ee.doe.gov.

The next meeting of the NHFCCSCC will be held on Wednesday, September 5th at 3:00 PM EDT.