

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

**Wednesday, March 13, 2013
TIME: 3:00 – 4:30 pm (Eastern Daylight Time)**

Minutes

Attendees

Bob Boyd
Bob Davidson
Carl Rivkin
Connor Dolan
Ernst Baumgartner
Greg Chirdon
Jackie Birdsall
Jennifer Hamilton
Jill Thompson

John Grimes
Julie Weis
Karen Hall
Kelvin Hecht
Marc Buttler
Nick Barilo
Richard Craig
Robert Ingram
Robert Sale

Ron Nies
Spencer Quong
Steve Tucky
Steven Weiner
Tim McGuire
Will James
Erik Shelton
Sally Mitchel

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

Review of or corrections to February draft minutes – Approved as amended.

2 DOE/HQ Update

Nha Nguyen

Will James – DOE Annual Merit Review (AMR) May 13 – 17 at the Washington, D.C. Crystal City Airport Marriot. Tuesday, May 14 – Hydrogen C&S meeting

ICHS Meeting - Hydrogen Safety focus - Second Week in September, Brussels, Belgium. Previous meeting had over 100 papers submitted and 29 countries represented.

Refueling protocol webinar – held on Friday, February 2, over 120 people registered. The webinar was recorded and is available on the EERE Fuel Cell Technologies website.

Will the sequestration affect funding? Still targeting FY 2013 request levels. No comment at present.

3 C&S Events and Fuel Cell Safety Information

To add - April 11/12 IEA Hydrogen implementing agreement on hydrogen safety meeting in health and safety lab Buxton, UK

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

Kelvin Hecht

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

Karen Hall

4 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 1st 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#4 (IEC 62282-3-200 Ed.2 – *Stationary Fuel Cells – Performance*)
 - 2nd edition in progress
 - Comments to CD requested by March 14th. (April 19th)
- 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*)
 - 2nd edition in progress
 - Comments to CD requested by March 4th. (March 22nd)
 - Next meeting scheduled for April 22-24 at UL in Northbrook, IL
- 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.
 - Comments to CD posted January 18th.
 - Next meeting scheduled for April 25-26 at UL in Northbrook, IL
- WG#11 (IEC TS 62282-7-2 *Single Cell – Test Methods For Solid Oxide Fuel Cells*)
 - CD in progress.
 - Comments to CD posted January 11th.
- WG#12 (IEC 62282-3-400 – *Small Stationary Fuel Cells with Combined Heat and Power Output*)
 - CD in progress.
 - Met February 21-22, Paradise Hotel, Busan, Korea.

❖ Proposed change to scope of TC105

Extend scope to include FLOW BATTERIES

- Comment by March 10th (April 5th)

ISO TC 197

Jill Thompson

1. Recent meetings

- Plenary, February 28, in Montreal
Working group meetings were 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

2. Proposed meeting

- WG 15, *Gaseous hydrogen - Cylinders and tubes for stationary storage*, in Paris; proposed dates are:
 - i.* June 24 and 25
 - ii.* July 1 and 2

NFPA

Open NFPA 2 meeting to be held in early June. Extended for extra day and have received over 200 comments.

ICC

Robert Sale

April 21 – 30 – Committee action hearings in Dallas Texas, reviewing public comments and code changes for Group B codes, residential, energy conservation, green code, performance code, and others.

Annual business meeting and final action hearing to be held in Atlantic City in early October.

CSA

Julie Weis

Update to be included in minutes. Available online at <http://www.fchea.org/core/import/NHFCCSCC/CSA-2013.02.28.pdf>.

HDTA Status Update

Ken Loewenthal

No report at this time.

UL

Laurie Florence

No report at this time.

SAE

Mike Steele
Jesse Schneider

Mike Steele - Safety working group – J2579 motor vehicle council level – will know by end of the month. Publishing goes quickly after approval if no negative votes.

Jennifer - J2990-1 – two meetings, - last of which end February – volunteers to work on different elements of 2990 document and identifying any parts that need input for hydrogen section, getting some references and resources put together. Deliverables are due at next meeting, end of this month on March 27th. Anyone interested can contact Spencer Quong or Jennifer.

Mike Steele - Interface working group - J2601 – serious amount of activity over past month – group has identified first quarter to get document out – progressing steadily to standard stage, hopefully by mid-year.

Mike Steele - J2799 – We are in the process of editing and writing rationale for changes - 2799 includes hardware and software requirements for communications - hopefully will be voted on very quickly as not many changes are being made.

Bob - J2601-3 – forklift and utility vehicle standard – has completed ballot process and is currently undergoing 13 day affirmation ballot closing on March 21st – expected to be published as TIR by May/June

J2601-2 - Bus standard – working draft has been published within SAE working group – meeting today – another meeting in a month – target publication is December

ASTM

Tommy Rockward

It is important to understand which methods are validated, and which tests are commercially available.

5 Discussion Topics

Regulatory Matrix Review and Comment

Karen Hall

www.fchea.org/core/import/NHFCCSCC/Regulatory-Matrix-2013-2-13.pdf

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

Permitting and Installation of Hydrogen Fueling Stations

Ca FCP Station Implementation

Jennifer Hamilton

Moved into working group – various projects under station implementation – includes station timeline, how long it takes from funding announcement to vehicle fueling at stations.

Ca DMS Metrology

Norman Ingram

Still doing pressure build up testing to check for leaks – testing integrity of device – this week hope to be up to 3000 psi, gradual process that hopefully will lead us to the start of dispensing at 35 MPa so we can check the standard

Straw man document under review at DMS — purpose to get stakeholder input on measure device code standard changes – 3 columns – lists all code requirements from applications, specifications, tolerances, notes, and user requirements / purpose of justification for change / suggested alternative language

Ca DMS Fuel Quality

Ron Nies

Went out to CAFCP – practiced pulling a sample at a laboratory and hooked up to device – hardware issues continue – hope soon to visit stations, pull samples, and bring back to laboratory – sampling apparatus has giant leak so we need stations to help to pull samples – to make clear, we will not be putting on regulatory hat for some time – in comparison to petroleum program, if the sample fails a test, the station is closed down, for hydrogen we are using different methods and working with the stations

SAE TIR J2601 Compliance

Still looking for real stations in the field that can do a test of the new protocols before publication.

Hydrogen Fuel Quality and Measurement

NIST

Juana Williams &
Marc Buttler

U.S. comments on the second committee draft (2CD) of part 1 and part 2 of OIML R 139 “Compressed gaseous fuel measuring systems for vehicles” are due to NIST OWM by March 13, 2013. Comments will be used to develop a U.S. position and submit a U.S. vote on the 2CD.

6 Open Discussion & Other Issues

Next meeting to be held on Wednesday, April 3, 2013 at 3:00 – 4:30 PM Eastern.