

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

Wednesday, August 6, 2014

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

Minutes

Attendees

**Bob Boyd
Bill Collins
Connor Dolan
Jackie Birdsall
Jay Keller
Jennifer Hamilton**

**John Grimes
Julie Weis
Karen Hall
Laurie Florence
Mike Steele
Nha Nguyen**

**Nick Barilo
Norman Newhouse
Spencer Quong
Susan Bershad
Will James**

1 Welcome and Housekeeping Items

- Reviewed anti-trust guidelines - http://www.fchea.org/core/import/PDFs/ANTITRUST_GUIDELINES.pdf
- Reviewed meeting agenda.
- Approved July draft minutes.

2 DOE/HQ Update

Will James

Jay Keller – Will has indicated that there is no report at this time.

3 ICHS 2015 Conference

Jay Keller

International Conference for Hydrogen Safety, held every other year. Sponsored by International Association for Hydrogen Safety (IA HYSAFE). This will be the 6th meeting. This year will be highlighting, safety and infrastructure. Meeting will be held October 2015 in Japan. www.ichs2015.com

4 C&S Events and Fuel Cell Safety Information

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

Kelvin Hecht

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

Karen Hall

Action Item: Request for technical resource updates for the Hydrogen and Fuel Cell Safety website. Any committee members who have materials they would like hosted on the website can send them to Karen Hall (khall@fchea.org) or Connor Dolan (cdolan@fchea.org).

5 Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

Will James – Kelvin will remain his role as the IEC TC 105 representative.

- WG#1 (IEC TS 62282-1:2013 – *Terminology*)
 - TC105 posted for nominations for new convener on June 20, 2014. Input to USTAG prior to September 12th.
- WG#3 (IEC 62282-3-100:2012 – *Stationary Fuel Cells – Safety*)
 - TC105 posted for nominations for new convener on June 20, 2014. Input to USTAG prior to September 12th.
- WG#4 (IEC 62282-3-201 Ed.1 – *Stationary Fuel Cells – Performance for small fuel cells*)
 - Comments received and posted on 4/4/14 for Ed.2. To be discussed at next meeting.
- WG#4 (IEC 62282-3-200 Ed.2 – *Stationary Fuel Cells – Performance*)
 - CDV posted for vote and comments on June 20, 2014. Comments due to USTAG prior to September 12th.
- WG#6 (IEC 62282-4-101 – *Fuel Cell Systems for Forklift Applications – Safety*)
 - FDIS posted on May 23 for vote by July 25, 2014.
- WG#7 (IEC 62282-5-1 – *Portable Fuel Cells*)
 - Comments for a 2nd edition posted in May 2014.
- WG#8 (IEC 62282-6-101 – *Micro Fuel Cells – Safety*)
 - 2nd edition in progress. IEC 62282-6-101 will be General Requirements. Specific technologies will be separate documents.
- WG#9 (IEC 62282-6-200 Ed.3 – *Micro Fuel Cells - Performance*)
 - USTAG comments to CD submitted to TC105 on June 25, 2014.
- WG#10 (IEC/TS 62282-6-400 - *Micro Fuel Cells – Power & Data Interchangeability*)
 - In view of CDV rejection, member countries voted to proceed as a Technical Specification.
- WG#11 (IEC TS 62282-7-2 *Single Cell – Test Methods For Solid Oxide Fuel Cells*)
 - To be posted as a DTS by September 2014.
- WG#12 (IEC 62282-3-400 – *Small Stationary Fuel Cells with Combined Heat and Power Output*)
 - CD posted on 5/30/14 with a closing date of 9/5/14 for comments.
- Ad Hoc Group 5 (*Life Cycle Assessment – environmental impact*)
 - 1st meeting October 9-10 in Frankfurt to plan for new standards. No US representative scheduled to attend.

Jay Keller – TC 197 is back on its feet. All WGs have had kick off meetings except for the three which were chaired by Peter Ehlers of CSA. WG 24 is very aggressively working on its activities, it understands it will outpace the activities of the other groups and will be using placeholder information for those groups in the meantime.

Karen Hall has been nominated to take on the three WGs that Peter Ehlers had previously been Chair.

Karen Hall – December 1 – 3 WG meetings will be held, 4 – 5 plenary will be held.

NFPA 2

Susan Bershad

The joint NFPA 2 and NFPA 55 meeting in Golden, Colorado was held last month. NFPA is preparing the documents for ballot now and anticipate distribution at the beginning of December.

NFPA 853

Karen Hall

Waiting for publication.

ICC

Robert Sale / Bob Davidson

Bob Boyd – California fire marshal has announced that they attended the ICC hearings and were part of the adoption of NFPA 2. They have put through a supplement (signed on July 22) and will be recognizing NFPA 2 in likely June 2015.

CSA

Julie Weis

Presentation available online at <http://www.members.fchea.org/core/import/NHFCCSCC/CSA-August-2014.pdf>.

HDTA Status Update

Ken Loewenthal

No update at this time.

UL

Laurie Florence

No report at this time.

SAE

Mike Steele / Tim McGuire

Presentation available online at www.members.fchea.org/core/import/NHFCCSCC/SAE-August-2014.pdf.

ASTM

No report at this time.

Facilitating Deployment

Carl Rivkin

Karen Hall – Carl is working with several members of the industry to enable deployment opportunities for hydrogen infrastructure.

Carl continues to Chair the ICT Fuel Cell Focus Group on developing a guidance document for implementation of fuel cell for backup power at telecommunications applications. An in-person meeting was held recently and a draft will be available for review near the end of the year.

H₂USA Activities

Karen Hall

Website has had much development. An outreach slide deck is also going through internal review.

The working groups moving toward deployment are making progress. The H2FIRST collaboration has begun its activities in collaboration with the Hydrogen Fueling Station WG.

Regulatory Matrix Review and Comment

Karen Hall

The latest version is available online at <http://www.fchea.org/core/import/NHFCCSCC/FCHEA-Regulatory-Matrix-2014-6-24.pdf>.

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

Action Item: Any updates available for IEEE, ASTM, or other groups in which FCHEA staff are not actively participating, please contact Karen to keep these items up to date.

7 Permitting and Installation of Hydrogen Fueling Stations

Ca Station Implementation

Jennifer Hamilton

Tyson Eckerle is in the Governor's Office and is leading the "Green Team." This team is tracking progress on hydrogen implementation. There has been a lot of activity and push from the Governor's office and the state fire marshal.

Catherine Dunwoody has moved back to CARB as their Hydrogen and Fuel Cell Chief.

Jay Keller (copied from FCHEA Transportation WG Meeting) – The Governor's office in Sacramento has held several outreach workshops to AHJs, permitting officials, fire marshals, etc. The workshops have been well-organized, constructive, and have had good turnout.

Jennifer Hamilton – More Workshops are in the process of development.

Ca DMS Metrology

Norman Ingram

No report at this time.

Ca DMS Fuel Quality

Ron Nies

No report at this time.

SAE J2601 Compliance

Jesse Schneider

**Legal Metrology Standards Hydrogen Fuel
Quality and Measurement**

Juana Williams

- (1) FCHEA Regulatory Matrix (ver. 24JUN2014) modify the section on OIML R 139 to read as follows:

OIML R 139 – Compressed gaseous fuel measuring systems for vehicles. The Final Draft Recommendation of OIML R 139 parts 1 and 2 is available on the website: <http://auckland.oiml.org/ciml#drafts>. This document combines part 1 (-1): metrological and technical requirements and part 2 (-2): metrological controls and performance tests. OIML R 139-1 and -2 will be forwarded for approval during the 49th Meeting of the International Committee of Legal Metrology (CIML) held November 3-6, 2014 in Auckland, New Zealand.

The first committee (1CD) draft of OIML R 139 part 3 (R 139-3), the associated test report, is posted on the OIML website at: <http://www.oiml.org/en/technical-work/committee-drafts>. Project group 4 has a **deadline of August 23, 2014** to review and comment on the 1CD.

- (2) Under Agenda Item 5 Discussion Topics: Legal Metrology Standards Hydrogen Fuel Quality and Measurement. The NIST Fluid Metrology Group is making some final improvements on the hydrogen dispenser field test standard before receiving final internal approval. We are earnestly searching for east coast refueling sites (35 MPa) interested in collaborating with NIST FMG and OWM who would permit, at minimum, ten deliveries to gather information about the gravimetric, master meter, and PVT test methods.

Action Item: Question raised regarding why they are looking for information on the 35 MPa stations.

Will James noted that there are two 35 MPa stations in South Carolina.

8 Open Discussion & Other Issues

Next Meeting to be held on Wednesday, September 3, 2014 at 3:00 PM Eastern.