



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

**Wednesday, April 5, 2017
TIME: 3:00 – 4:30 pm (Eastern Standard Time)**

Minutes

Attendees

**Justin Lewis
Karen Quackenbush
Bob Boyd
Spencer Quong
Juana Williams
Mike Steel
Carl Rivkin
Susan Bershad**

**Nick Barilo
Christina Daniels
Steve Goyette
Stella Papasavva
Norm Newhouse
Brent Hartman
Marcia Poxson
Sarah Caldwell**

**Kyle McKeown
Chris LaFluer
Steven Delmonaco
Ken Loewenthal
Martin Gresho
John Bendo
Jennifer Hamilton
Scott Jennings**

I. Welcome and Housekeeping Items

Reviewed FCHEA's anti-trust guidelines - Available on FCHEA's members only website and a copy can be provided to you on request.

Reviewed and approved the meeting agenda.

Reviewed and approved the previous meeting minutes.

II. DOE/HQ Update

Will James

No update this month from DOE/HQ. The 2017 AMR is coming up June 5-9.
<https://www.annualmeritreview.energy.gov/>

III. C&S Events and Fuel Cell Safety Information

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

Kelvin Hecht

<http://www.hydrogenandfuelcellsafety.info/events/>

Karen Quackenbush

Request: 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 Quackenbush (khall@fchea.org) or Connor Dolan (cdolan@fchea.org).

Request: Please notify Karen or Connor of any meetings / events to add to the calendar.

IV. Global Technical Regulations

Nha Nguyen

No new updates since the last report.

V. Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

No new updates since the last report.

ISO/TC 197

Glenn Scheffler/Jay Keller

WG 24 has announced a meeting for 13-16 June in Seoul, Korea. A joint meeting of ISO TC 197 WG 27/ ISO TC 158 WG 7 is being planned. The US TAG has been requested to vote, and comment as needed, on ISO/CD 14687, Hydrogen fuel quality — Product specification.

NFPA 2

Susan Bershad

First draft meeting being held on 4/5/17 in Torrance, CA this week. Many people in the room joining the call today. This is the third First Draft meeting. Results of the Technical Committee efforts will be posted early next year to allow for public comment.

ICC

Bob Davidson

The proposals of interest to industry regarding repair garages have been accepted. The IFC is in publication. We do not expect to hear much until the next edition comes out.

CSA

Sara Marxen

Brent: Conducted North American Hydrogen Codes & Standards forum on 3/22 in Ottawa to coordinate US-Canadian hydrogen infrastructure deployment. Expect to have a public version of their report released in May.

Standard Developments Activities: Technical Subcommittee will meet on April 10.

CHMC2: Document and meetings have been postponed until further industry participation can be obtained.

Fuel Cell Technical Committee will meet via teleconference on April 18.

SAE

Mike Steele

Meetings will be on June 20-21 in Michigan. Tim McGuire is no longer chairing the committee. A new name will be provided when a new Chair is in place.

ASTM

Jennifer Hamilton

ASTM is getting ready for June meeting in Boston.

ASME

John Bendo

John Bendo is replacing John Grimes as ASME representative to the NHFCCSCC. There are no new updates at the moment.

VI. Discussion Topics

Facilitating Deployment

Carl Rivkin

Tunnel authorities in Maryland are interested in understanding what could happen with accidents or fires of FCEVs in tunnels. Sandia is working on data and modeling. Creating models for what would happen if a truck carrying hydrocarbons overturned and ignited. The data is of interest to other jurisdictions as well, including New York and Boston.

H₂USA Activities

Karen Quackenbush

Our hydrogen fueling working group is meeting on April 18, to start closing out on items we've been working on, and decide new items for next year's agenda. We are working with the National Association of State Fire Marshalls to follow up on last years' Hydrogen and Fuel Cell session at their meeting.

H2FIRST

NREL/SNL

Focus will be on examining options for hydrogen storage in urban areas (underground and elevated). They are also planning to make a presentation at the H₂USA Hydrogen Fueling Working Group at the April 18 meeting to begin to solicit industry input for the ranking of priorities for H2FIRST project for the next fiscal year.

Regulatory Matrix Review and Comment

Karen Quackenbush

Connor will email out the latest version of the matrix to all participants before our next meeting. We will be delivering the current version to DOE based on the status of activities through March.

VII. Permitting and Installation of Hydrogen Fueling Stations

Ca Station Implementation

Jennifer Hamilton

Our 26th hydrogen refueling station opened in Riverside since the last meeting. On the CFCP website, you can view a map of all stations in the state; can also be downloaded as a PDF. We recently held our Quarterly Refueling Stations Webinar in March. If anyone wants to be added to the distribution list, contact Jennifer.

Ca DMS Fuel Quality / Metrology

Christina Daniels

No new updates to report at this time.

Fueling Compliance

Sara Marxen

No direct updates to report at this time.

Legal Metrology Standards Hydrogen Fuel Quality and Measurement

Juana Williams/Ralph Richter

No new updates to report on national efforts, but Ralph Richter recently attended a meeting in Yokohama, Japan last month to work on international document OIML R-139 (Compressed Gaseous Measuring Systems for Vehicles), which will be adopted by most countries. Though the United States will adopt it differently – we'll weigh in as a country on their proposals for changes to R-139.

Ralph Richter: This revision cycle is to make to the document applicable to hydrogen fueling as opposed to just natural gas. They're opening up two new accuracy classes for 3% and 5% as well. They're also changing some of the test procedures to make them more applicable for hydrogen systems. Right now, there's a working draft of this revised document, but Ralph will wait until the summer to circulate it to the group. They're also planning to have a meeting after receiving public comments, in September in Delft, The Netherlands.

VIII. Open Discussion & Other Issues

Unauthorized fueling

This came up a few meetings back with concerns expressed by several participants – someone trying to fuel unauthorized vehicles at a hydrogen refueling station. It's a timely subject, but since it's a work in progress, we're currently developing requirements to address this in the next issue of NFPA 2.

Other Issues?

No other issues were discussed.

IX. Next Meeting

The next meeting will be held on May 3, from 3:00 – 4:00 EST.