

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

**Wednesday, July 18, 2018
TIME: 3:00 – 4:00 pm (Eastern Standard Time)**

Minutes

Attendees

**Alice Muna
Andreas Wilcort
Bob Boyd
Bob Davidson
Carl Rivkin
Christina Daniels**

**Connor Dolan
Jay Keller
Kevin Harris
Morry Markowitz
Nick Barilo
Norm Newhouse**

**Sara Marxen
Spencer Quong
Stella Papasavva
Yuk Wong**

I. Welcome and Housekeeping Items

- Review FCHEA's anti-trust guidelines - Available on FCHEA's members only website and a copy can be provided to you on request.
- Approve the meeting agenda
- Approve the previous meeting minutes

II. DOE/HQ Update

Chris LaFluer

No update at this time.

III. C&S Events and Fuel Cell Safety Information

<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).

Additional meetings to be added by Jay Keller.

Research Priorities Workshop to be held in September in Buxton. Held every other year by invitation only. Intended to understand current state of the art for behavior research.

GTR meeting to be held in the Fall.

IV. Global Technical Regulations

Nha Nguyen

Jay Keller – Meeting held recently in Korea. Third meeting (second working meeting). From my perspective things moving nicely. Will hold another meeting in the Fall.

V. Codes and Standards Organization Updates

IEC TC 105

Kelvin Hecht

No update at this time.

ISO/TC 197

Karen Quackenbush/ Glenn Scheffler/Jay Keller

TC 197 WG 24 held a meeting in Hamburg. Went through a lengthy list of comments. The document will go out again for comment with hope to resolve in the Fall. Planning on a December FDIS along with the plenary.

WG meetings will be held Monday and Tuesday of the week. Wednesday is a strategy planning meeting. Thursday and Friday will be the plenary.

NFPA 2

Carl Rivkin

Going to be a second draft meeting at NFPA headquarters in Quincy, MA. Open to the public, just notify Carl Rivkin or Susan Bershada. Have 95 public comments received currently. Potential for additional new material to be introduced.

Will be a 2020 edition published in 2019.

Following public comments will go through the process of producing a final document by April 2019.

Will have some significant changes, including the revision of safety setback distances for bulk gas storage. Will have some reduced setback distances which will ease deployment of fueling stations.

NFPA 2 standard permitting task group held a meeting on May 8. Seeking input on how to reduce obstacles for permitting.

On NFPA website there are forms for various topical areas. One of the areas we are suggesting is creating a hydrogen permitting forum on NFPA website. Believe this would be helpful as it is one of the places where regulatory officials look for when looking up permitting stations.

ICC

Spencer Quong

Bob Davidson – All submissions were approved on hydrogen except for one that asked for an exception on higher level requirements for nozzling. The Committee had some comments and concerns and disapproved it. There is a public comment in on that and working on submitting further material to back it up. Some modeling work needs to be done that would document leak data.

CSA

Sara Marxen

- **CSA HGV 4.3** (hydrogen fueling parameters) is an active project to develop the next edition. The draft document is being finalized and is expected to be sent for Industry / Public Review by the end of July 2018.

- **CHMC 2** (chemical compatibility for non-metals) technical subcommittee continues to meet with the goal of publishing in late 2018/early 2019.
- We are planning a **North American Hydrogen Codes, Standards and Regulatory Forum** in Sacramento, CA on August 9. A Save the Date has been sent, and more details will be sent very soon.
- **CSA Group U.S. Committee Week** is planned for San Antonio, Texas, with the Hydrogen Transportation Technical Committee meeting on the afternoon of October 16, HGV 4.9 (hydrogen fueling stations) TSC meeting on October 17 and HGV 4.1 (hydrogen fueling dispensers) TSC meeting on October 18.
- **ISO TC 197 Plenary** will be co-hosted by CSA and SCC in Vancouver – December 3 - 6, 2018.

SAE

Mike Steele

No update at this time.

CGA

Rob Early

No update at this time.

ASTM

Jennifer Hamilton

Christina Daniels – Meeting at the end of June. Formed some work groups to make them more rugged and focused on what people are actually doing. The new WG document for screening method for testing halogenates is being updated. Anticipated to go to ballot soon. If no negative votes, will be available by the end of the year.

ASME

John Bendo

No update at this time.

VI. Discussion Topics

Facilitating Deployment

Carl Rivkin

See above update on NFPA 2.

H₂USA Activities

Karen Quackenbush

Jay Keller - In the process of restructuring H₂USA structure and direction.

H2@Scale

Jay Keller - H2@Scale is moving along nicely. Was specifically mentioned in the federal budget. The Fuel Cell Technologies Office is embracing the program. A workshop will be held soon.

Regulatory Matrix Review and Comment

Karen Quackenbush

<http://www.fchea.org/s/FCHEA-Regulatory-Matrix-markup-June-30-2018.pdf>

Permitting and Installation of Hydrogen Fueling Stations

CA Station Implementation

Jennifer Hamilton

Cristina Daniels – Shell station in Newport Beach upgrade is complete and now retail open. Is giving slower fills. HySTEP was at Burbank recently. Should be online soon. Emeryville and Palo Alto are next on the list.

The current station count is 35 open retail stations.

CA DMS Fuel Quality / Metrology

Kevin Schnepf

Cristina Daniels – New CTEP device approved that can now be used in the state of California. Continue to assist with HySTEP and support sampling of all the stations.

Legal Metrology Standards Hydrogen Fuel Quality and Measurement

Juana Williams/Ralph Richter

No update at this time.

VII. Open Discussion & Other Issues

Other Issues?

Nick Barillo – PNNL who runs the Hydrogen Safety Panel has partnered with AIChE to develop a Center for Hydrogen Safety.

Promoting safe use of hydrogen across all applications, working on first responder training, hydrogen safety conferences, and broader access to the Hydrogen Safety Panel.

Website - www.aiche.org/chs

VIII. Next Meeting – Wednesday, August 15th at 3 PM Eastern.