



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

**Wednesday, May 30, 2018  
TIME: 3:00 – 4:00 pm (Eastern Standard Time)**

**Minutes**

**Attendees**

Carl Rivkin  
Connor Dolan  
Eric Nelson  
Jay Keller  
Jennifer Hamilton

Juana Williams  
Karen Quackenbush  
Mike Steele  
Morry Markowitz  
Nick Barilo

Norm Newhouse  
Rob Early  
Sara Marxen  
Stella Papasawa  
Yuk Wong

**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.
- Approved the meeting agenda.
- Approved the previous meeting minutes.

**II. DOE/HQ Update**

**Laura Hill**

**Written report provided in advance**

The President's budget request was \$58M for FCTO. The House mark (\$102M) and the Senate mark (\$115M) were both released in the last few weeks. As always, we support the President's budget request.

We look forward to seeing everyone at the AMR, June 13-15 at the Wardman.

While Laura is on maternity leave this summer, Chris LaFleur will be the POC for Safety, Codes and Standards at FCTO. Please feel free to reach out to her at [chris.lafleur@ee.doe.gov](mailto:chris.lafleur@ee.doe.gov). Both Laura and Chris are currently available and can be included on correspondence as needed.

**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](mailto:khall@fchea.org)) or Connor Dolan ([cdolan@fchea.org](mailto:cdolan@fchea.org)).

#### **IV. Global Technical Regulations**

**Nha Nguyen**

No report at this time.

#### **V. Codes and Standards Organization Updates**

##### **IEC TC 105**

**Kelvin Hecht**

Will seek a report on the next meeting.

##### **ISO/TC 197**

**Karen Quackenbush/ Glenn Scheffler/Jay Keller**

WG 24 – responsible for station work 19880-1. Document went out for DIS. 100% vote to approve with no negative votes. Only benign comments provided.

WG 24 will hold a meeting on July 8 in Hamburg, Germany to discuss the DIS vote.

ISO 16111 – Metal hydrides work being reviewed by member countries for final draft international standard phase. Being discussed at FCHEA Portable Power WG.

Part 5 – Hose and Hose Assemblies. Out for review as a draft international standard. Receiving a number of technical comments. Scheduling meeting at SAE in September to review these comments.

##### **NFPA 2**

**Carl Rivkin**

Comment closing date has passed. 170+ comments to review the second week in August. Will be a very full week. Will organize the comments so that they are binned so we can review as quickly as possible.

##### **ICC**

**Spencer Quong**

Karen - Number of hydrogen related proposals that passed. Only one hydrogen proposal was not accepted. Key change that was approved included allowing the movement of a sub-assembly on a vehicle will no longer require a defuel and purge of a hydrogen tank.

The I-code proposals were discussed in the May Safety Report, available at [www.hydrogenandfuelcellsafety.info](http://www.hydrogenandfuelcellsafety.info).

##### **CSA**

**Sara Marxen**

- CSA Group's Hydrogen Transportation Technical Committee is scheduled to meet late June 2018.
- CSA HGV 4.3 (hydrogen fueling parameters) is an active project to develop the next edition. Steve Mathison of Honda is working on MC formula method updates, and the TSC will meet in late June 2018.
- CSA HGV 4.1 (hydrogen fueling dispensers) and HGV 4.9 (hydrogen fueling stations) projects will be kicked off in the next month or so.
- CHMC 2 (chemical compatibility for non-metals) technical subcommittee continues to meet with the goal of publishing in summer of 2019.

- ISO TC 197 Plenary will be co-hosted by CSA and SCC in Vancouver – December 3 - 6, 2018.

**SAE****Mike Steele**

Interface WG Meetings next week. Expect progress on J2601-4. Technical details are overwhelming but the group has a good grasp. Safety Working Group meeting as well.

**CGA****Rob Early**

Continuing to work on the G5.5 standard. Testing radiation to actual vs. test to enable better siting assistance. Long-range goal to be completed by year end.

**ASTM****Jennifer Hamilton**

Discussing potential workshop for one of the methods for sample collection for the 2019 meetings.

**ASME****John Bendo**

No report at this time.

**VI. Discussion Topics****Facilitating Deployment****Carl Rivkin**

Done a short overview presentation of NFPA 2 that will be posted to the H2 Tools Permitting webpage (likely tomorrow). Is meant for general use to discuss NFPA 2 to an unfamiliar audience.

The H2 Tools website is available at <https://h2tools.org/>.

**H<sub>2</sub>USA Activities****Karen Quackenbush**

No report at this time.

**H2@Scale**

Connor Dolan - The Department of Energy will be providing an H2@Scale report at the upcoming National Fuel Cell and Hydrogen Forum which will take place in Washington, D.C. on June 12<sup>th</sup>. More information is available at [www.fch2forum.com](http://www.fch2forum.com).

Jay Keller – H<sub>2</sub>@Scale has really gained traction – it earned a line item in the funding bills and FCTO is reorganizing around this new thrust direction. This is great news!

**Regulatory Matrix Review and Comment****Karen Quackenbush**

<http://www.hydrogenandfuelcellsafety.info/s/FCHEA-Regulatory-Matrix-markup-March-31-2018.pdf>

**Permitting and Installation of Hydrogen Fueling Stations**

## **CA Station Implementation**

**Jennifer Hamilton**

The California Fuel Cell Partnership's Quarterly CA Hydrogen Station Update webinar is coming up on June 7<sup>th</sup>.

The Newport Beach hydrogen station is now open as the state's 35<sup>th</sup> retail station. This is an upgraded station.

## **CA DMS Fuel Quality / Metrology**

**Kevin Schnepf**

No report at this time.

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

**Juana Williams/Ralph Richter**

No report at this time.

## **VII. Open Discussion & Other Issues**

### **Other Issues?**

## **VIII. Next Meeting – Wednesday, July 11<sup>th</sup> at 3:00 PM Eastern.**