

# **MINUTES OF THE MARCH 2010 TELECONFERENCE OF THE NATIONAL HYDROGEN AND FUEL CELLS CODES & STANDARDS COORDINATING COMMITTEE**

**MEETING DATE: March 3, 2010**  
**FACILITATOR: Chad Blake, NREL**

## **1. Roll Call - Chad Blake**

[Attendees](#) (26Kb PDF)

## **2. Review of Anti-Trust Guidelines - Tony Androsky**

[Antitrust Guidelines](#) (27Kb PDF)

## **3. Review of/Corrections to Draft Minutes of February 2010 Teleconference Meeting**

[Approved with changes](#) (91Kb PDF)

## **4. Updates**

Units of Pressure in Codes and Standards

NIST – MPa/SI followed by US customary units in ( )  
CSA – MPa/SI with (psi) by industry direction  
ISO – MPa/SI by requirement  
SAE – MPa/SI with (psi) – preferred  
GTR – MPa/SI by requirement, psi deleted  
IEC TC105 – MPa/SI  
ICC – MPa/SI with (psi)  
NFPA – MPa AND psi by preference per document

Also see NIST handbook for labeling requirements at the dispenser.

## **5. DOE/HQ Update – Antonio Ruiz**

The CNG/H2 workshop proceedings, including all the presentations, should be online on the DOE site by 3/1.

There was an IPHE Infrastructure workshop, in cooperation with the DOE and The CaFCP, held in CA on 2/23-2/25 and the proceedings from that meeting should be available within the month.

And a reminder to book the needed reservations for the DOE Annual Merit Review in June. This year it is going to be in DC and not Arlington.

## **6. California Hydrogen Standards - John Mough/Gary Castro**

No new information; waiting for State CEC funding expected next month.

## **7. Hydrogen Industry Panel on Codes (HIPOC) Activities - Bob Boyd / Glenn Scheffler**

**No new information**

## **8. NFPA Activities - Paul May/Marty Gresho**

**NFPA 2** is in the comment phase. Comments are due on March 5th – this Friday. The ROC meeting will be

held at NREL on April 19th through the 23rd. This will eventually be published as the 2011 Edition of NFPA 2.

**NFPA 55** is published as the 2010 Edition. Proposals are due in November 23, 2010 for the 2012 code cycle.

**NFPA 52** is published as the 2010 Edition. Proposals are due on May 23, 2011 for the 2012 code cycle.

## **9. NREL Activities - Carl Rivkin**

The NREL sensor test lab is initiating round robin testing; collaborative effort with JRC.

The alternative fuels vehicle Codes and Standards Gap Analysis has been published and is available on the NREL web site.

Codes and Standards workshops for 2010 will begin with 2 workshops in collaboration with CaFCP in the Bay area the second week in May, and in Southern Ca in June or July. At least 2 other workshops will be held later in the year in other locations.

Collaborative effort with Sandia on indoor fuelling and the operation of hydrogen fuel cell powered fork lifts is ongoing.

Stationary Fuel Cell Codes and Standards Gap Analysis is underway, not limited to PEM fuel cells. Draft is due the end of April, and will coincide with a workshop that will be held at Sandia where input may be available.

NREL is also involved in Electric Vehicle Codes and Standards; the focus at this time is on charging stations.

## **10. SNL Activities - Dan Dedrick**

No update

## **11. LANL Activities - Cathy Gregoire-Padro**

No update

## **12. ANL Activities - Walt Podolski**

Hydrogen fuel quality - involved with modelling efforts for fuel cell operations for quality standard. Also, modelling for cost analysis and trade-offs for hydrogen fuel quality.

## **13. PNNL Activities - Steve Weiner**

H2Incidents.org – 169 safety events. All incidents now are linked to sections in H2Bestpractices.org for lessons learned and will stay up to date as a result of linking when incidents are entered.

Hydrogen Safety Panel – December meeting initiated follow-up efforts to safety reviews that have been performed in the past. 5 projects have been reviewed; of 50 safety panel initial recommendations, 85% have been implemented. Follow-ups will continue. Also, the panel will be looking at some applications that were awarded as a part of the stimulus package; the review will include safety plans as well as site visits.

Safety event information that has been collected should be evaluated and feedback needs to be returned to codes and standards technical committees for use in drafting language. The safety panel has proposed a mechanism by which this information can be collected, reviewed by the panel, and input be generated for potential gaps in codes and standards.

Hammer Training Course – 24 first responders will participate in a course on April 7th at the facility in Richland. Classes at other locations are being planned, potentially in California.

#### **14. IEC/TC105 Activities - Kelvin Hecht**

- [Kelvin Hecht's report](#) (22Kb PDF)

#### **15. ISO/TC197 Activities - Glenn Scheffler/Jill Thompson**

- [Glenn Scheffler's report](#) (17Kb PDF)

#### **16. Fuel Cell Forklift Issues - Aaron Harris**

UL2267 working group looking into pressure definitions and revised document is out for comments. The next meeting of the group will be March 16th.

The USFCC supported task force continues work, with success in areas of UL2267, the NFPA codes and standards, and CSA.

The next meeting will be March 15th at 1 pm.

#### **17. NIST Activities - Juana Williams**

- [Juana Williams' report](#) (54Kb PDF)

#### **18. CSA America Activities - Julie Cairns**

HGV 4.3 Verification of fuelling parameters specified in SAE J2601. 2-day working session at the end of March planned. Request for membership for 3 areas:

- Fork Lift Refuelling
- On board fork lift components
- Compressed Hydrogen compatibility at the component level

Annual meeting scheduled for week of September 20th in Orlando.

#### **19. SAE Activities - Mike Steele/Glenn Scheffler**

Meetings week of March 8th

2600 – March 9th

2619 – March 10th

Standards committee meets on March 11th

2578 – teleconference next Tuesday

2579 – teleconference next Wednesday

#### **20. ASTM D.03 Activities - Jackie Button**

- [Jackie Button's report](#) (76Kb PDF)

#### **21. NHA Activities - Karen Hall**

The NHA meeting is on May 3 – 5. Planning for in-person meeting of NHFCCSCC will move forward with

meeting for May 6th pending Gary checking on contract issues for Regulatory logic and DOE Golden Field Office. See [www.hydrogenconference.org](http://www.hydrogenconference.org) for more NHA Conference information.

## **22. USFCC Activities - Tony Androsky**

No new information

## **23. Next Call**

Next call is April 7th, 2010. Following call/webinar/meeting is May 6th at the NHA.