

MINUTES OF THE AUGUST 2007 TELECONFERENCE OF THE NATIONAL HYDROGEN AND FUEL CELLS CODES & STANDARDS COORDINATING COMMITTEE

MEETING DATE: August 1, 2007

MEETING TIME: 1 - 2:30 PM (MST)

1.0 Introductory Remarks – Russ Hewett

Russ stated that Robert Wichert of the Fuel Cell Council will be taking the minutes.

2.0 Reviewed Anti-Trust Guidelines – Robert Wichert, Sondra Ullman

Participants were asked to be mindful of the anti-trust guidelines:

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

3.0 Reviewed and approved the minutes of the July teleconference meeting

Russ asked for comments. No comments were forthcoming. The minutes will be placed on the Hydrogen and Fuel Cell Safety web site.

4.0 Opportunity for DOE/HQ Representative to Provide Latest Information on What's Going on at DOE – Antonio Ruiz

Antonio reported that FY-07 is coming to a close. There are a lot of new efforts going on. Some efforts are starting later than was initially planned. One of those is a project on weights and measures for hydrogen dispensing. There is a high-level international conference coming up in Spain.

The entire amount of funding for the FY-07 work was appropriated, but some work, such as sensor work, could not be started because the proposals were old and considered to be out of date. This may result in some sensor work being solicited later.

Pat Davis has been assigned to the "2010 Effort" to reduce oil use by 20% in ten years. Antonio will continue to lead the codes and standards efforts.

Funding for FY-08 is being organized. \$16,000,000 is proposed for hydrogen codes and standards and \$213,000,000 for the entire EERE hydrogen and fuel cells efforts.

5.0 Opportunity for John Mough to Provide Status Report on the California Hydrogen Fuels Project's Efforts to Develop a Hydrogen Fuel Quality Standard – John Mough

See <http://www.cdfa.ca.gov/dms/hydrogenfuel/HydrogenFuel.htm>. John was unable to attend the meeting.

6.0 Opportunity for Gary Castro to Provide Status Report on the California Hydrogen Fuels Project's Efforts to Develop a Hydrogen Fuel Dispenser Standard – Gary Castro

Gary was unable to attend the meeting.

7.0 Opportunity for Juana Williams to Provide Update Report on the National Institute of Standards and Technology's (NIST) Efforts to Develop a National Hydrogen Fuel Dispenser Standard – Juana Williams

[Juana Williams' report](#) (46Kb PDF)

A long range plan is being developed. It will be shared as soon as it is available. NIST attended the national

conference and reported on the work going on. NIST was able to meet with the meter manufacturers. This has resulted in interest in this topic. NIST also reported on the international documents. Please see the attached report, above. Comments are being solicited for the documents circulated.

There are some issues with the international documents regarding security of metrological sealing parameters. The international document does not comply with the NIST Handbook 44 guidance. NIST will work to correct this.

There will be a two-day kick-off meeting at NIST on October 3rd and 4th.

There will be a pipeline and storage tanks meeting later in the month. Interested parties can register at www.boulder.nist.gov/div853.

The standards being developed by NIST do relate to the display, the accuracy, the installation, the use, and other parameters intended to avoid fraud.

8.0 Report on Hydrogen Fuelling Station Permitting Workshop Conducted at the Annual Conference of the National Association of State Fire Marshals on 10 Jul 07 – Jim Ohi / Russ Hewett

Jim Ohi reported on the workshop. The workshop was very successful. Key regulators were invited to see general presentations regarding hydrogen and then the DOE initiative was discussed. Five working groups then broke out to discuss actual site plans for recent station examples. Issues relating to the codes and the plans were discussed. The definition of "canopy" was a particular point of confusion and this will be corrected through the change process. Additional workshops will be held.

Russ Hewett described his presentation to the HELP Team. Some major conclusions included:

1. It is possible to navigate through the permitting process using the I-Codes but additional documents are necessary to fully address the issues raised by knowledgeable experts. It was found earlier that a web based template would be helpful and this surfaced again at the workshop. The issue of zoning also came up, and was recognized as an important issue. Zoning will need to be addressed prior to permitting.
2. The plans provided to the participants were not a full set and future meetings will need to address this issue to provide a more complete package for their review.
3. Model code changes are anticipated to correct some issues found. HIPOC is likely to take the lead on such changes.

NREL is working on a web-based template for siting information and hydrogen and fuel cell technology information. Case studies and best practices will be included.

The workshop was a great success and the level of energy was commendable.

Robert Wichert and Patrick Serfass remarked that fuel cells might also benefit from such an effort.

http://www.firemarshals.org/events/annual_conference/Events.asp

9.0 Report on Hydrogen Industry Panel on Codes (HIPOC) Activities -- Patrick Serfass / Darren Meyers / Tom Joseph

Patrick Serfass reported that he attended the NREL siting workshop discussed above and reinforced the superior nature of the approach. During the workshop several dead-end references were identified and other issues were identified that would be followed-up by HIPOC. One of the lessons learned was to coordinate the voting blocks (such as California) for the purpose of answering their questions and garnering their support. The Joint Fire Services Review Committee would be another opportunity to educate and influence a large voting block.

The HIPOC focus right now is on ICC. The following issues are being addressed:

1. Electrostatic discharge
2. Indoor fast-fill fuelling

Other issues may be submitted outside of the HIPOC process. HIPOC will provide information regarding the proposals as soon as they are known.

Kelvin Hecht asked about the cross referencing done by the ICC Codes. ICC sometimes references NFPA Codes, but would be more likely to reference a standard. When discrepancies arise, they are being highlighted. If discrepancies are known, HIPOC will address them.

Mike Steele pointed out that NFPA 2 will hold a meeting in September in California in cooperation with Sandia. NFPA 2, Task Group 6, is going systematically through each separation distance using a risk-based approach.

Chris Moen reported that this work is very active and coordination is in place.

10.0 Report on NFPA Activities (Recent Meetings of Technical Committees for NFPA 52 and NFPA 55) -- written report submitted in Carl Rivkin's absence

[Mike Steele's report](#) (81Kb PDF)

Mike Steele reported that NFPA 2 accepted the fuelling pad resistivity and conductivity language from the ICC Codes.

11.0 Report on Global Technical Regulations Activity – Nga Nguyen

[Nga Nguyen's report](#) (112KB PDF)

Nga Nguyen reported that he is happy to announce a kick-off meeting next month. The co-sponsors of the GTRs (US/JP/DE) submitted a plan to WP29 and it was approved in June (this will be added to the minutes) and the kick-off meeting will be held in Bonn, Germany, on September 20/21. Meetings will continue next year.

There are two sub-groups: environmental and safety. NHTSA is participating in the safety sub-group. Japan will chair the meeting in Bonn, with the US as Co-Chair.

The European Commission Chairs the environmental sub-group. The US and Japan will Co-Chair the safety sub-group.

12.0 Report on IEC/TC105 Activities and Documents in the "Comments" Stage – Kelvin Hecht

[Kelvin Hecht's report](#) (105Kb PDF)

Kelvin reported that both the international stationary safety standard and the international portable safety standard have been published, and publication of both as European Norms (EN) is in process.

Both the stationary and the portable fuel cell safety standards from CSA are considering the process of harmonizing with the international standards. This must be decided by formal vote in the fall.

The US TAG for IEC TC 105 is finalizing its position regarding IEC 62282-6-1 Committee Draft for Vote (CDV). It appears that the US will vote "NO" with comments that would address.

13.0 Report on ISO/TC197 Activities and Documents in the Comments Phase – Debbie Angerman

[Debbie Angerman's report](#) (22Kb PDF)

Glenn Scheffler has been elected to Chair the US TAG of ISO TC 197.

Coordination with IEC TC 105 is in process.

The Airport Hydrogen Fuelling Operations PAS is out for review. If you have any ideas on reviewers, please alert Debbie Angerman.

[Global Harmonization report](#) (100Kb PDF)

The European Industrial Gas Association (EIGA) has applied for Category D liaison to ISO TC 197 WG 11. This is out for vote now. WG#6 of ISO TC 197 on ISO 15869 Land vehicle gaseous hydrogen tanks will meet in Vancouver Canada on September 6th and 7th.

14.0 Opportunity for CDOs and SDOs to Report on Their Activities (As Appropriate)

- **Report by CSA-America on its standards development activities – Julie Cairns**
HGV 4 met in June and July. Hoses and break-always were brought forward. During the discussions it was decided that all eight documents in HGV-4 will need to work together in parallel, with completion of the draft requested by the end of December. A work plan is being developed now. The request is for publication as desk-standards to allow industry to gain experience. This is also to coordinate with ASME B31.12.

The original completion date was to be March of 2008. The acceleration of the work is being requested to support other efforts. CSA is preparing a work plan to meet this request.

- **Report on USFCC Transportation Working Group's plans for Federal/State infrastructure coordination meeting -- Tony Androsky**
Tony Androsky reported on the USFCC efforts regarding market transition for stationary, portable, and transportation fuel cells. The USFCC Transportation Working Group has decided to establish a forum to align efforts regarding establishment of the hydrogen infrastructure to support the coming vehicles. Since the California ZEV mandate is coming up first, it has been decided to focus on California first. The first effort will be early in October.

Rody Stephenson asked if infrastructure is broader than filling stations. Tony replied that the focus is on filling stations.

- **UL**
Harry Jones reported that UL 2266 has extended the review period for a few weeks.

- **SAE**
Mike Steele reported that the next round of SAE meetings is during the week of September 17th. The Safety Working Group will be meeting during that week (reported by Glenn Scheffler). Glenn reported that the concept of systems level guidance is being supported widely by the industry.
- **ASME**
John Koehr reported that the Hydrogen Committee is meeting in two weeks in New Orleans.

The Savannah River National Laboratory and ASME are co-hosting a workshop on September 24 & 25 in Aiken, South Carolina. The flyer was attached to a previous agenda.

15.0 OPEN DISCUSSION (And Issues for Future Meetings)

Topics for Focused Discussion at Next In-Person Meeting

Please submit topics for the meeting.

16.0 Next Meeting

Teleconference Meeting on September 4th, 2007 (Tentative)