



**Codes and Standards Steering Committee Teleconference
Thursday, May 4, 2006 1:00-2:00 PM EDT**

Steering Committee Participants:

Bob Boyd, BOC
Bill Collins, UTC Power
Rob Early, Praxair
Tom Joseph, Air Products and Chemicals
Larry Moulthrop, Proton Energy
Christine Sloane, General Motors

NHA Staff

Karen Hall
Rex Hazelton
Patrick Serfass

Mr. Serfass called the roll at 12:05 PM

Breaking News

Mrs. Hall called the meeting to order asking for updates about any new activities from the participants' companies. No breaking news was provided by the committee.

Mrs. Hall reminded everyone that the NHA Codes & Standards Steering Committee is meant to represent the range of member interests and that following the resignation of Susan Townsend as Chair and David DaCosta as an advisor, asked if the steering committee members felt that the committee constituency accurately represented the membership of the National Hydrogen Association as a whole. Mrs. Hall explained that there was space to add advisors, and that a new chair and vice chair for the committee were going to be elected during the meeting. Mrs. Hall wanted to know if the Steering Committee felt current membership successfully covered the areas of hydrogen production, storage, development, etc. and asked for Steering Committee input.

Mr. Joseph stated that one thing the committee could consider was the industrial technologies that were being implemented into the marketplace, such as forklifts, as a lot of activity had been going on in that area. Mr. Joseph wanted to make sure that some committee members represent short-term applications.

Mrs. Hall inquired if any participants knew of NHA members looking at industrial applications, and to possibly invite them to become an advisor of the Steering Committee. Mrs. Hall additionally asked if there was enough representation on the issues of sensors and detectors, as well as portable applications.

Dr. Sloane stated that in terms of normal production, the Steering Committee has good representation, but when you look into the portable market, more representation is needed. Mrs. Sloane also added that General Motors just had hydrogen forklifts installed at one of their production plants and would look into who had manufactured them

Mr. Serfass suggested that Jadoo Power be asked to see if they were interested in joining the Steering Committee to represent the portable market, as they were already involved with ICC and active with the NHA. Mr. Serfass stated that he would contact Jack Peterson at Jadoo Power about joining the C&S Steering Committee. (ACTION ITEM)

Mrs. Hall stated that she would explore the NHA membership to see who might be asked to represent the industrial applications of hydrogen, and asked that the committee provide suggestions for representatives over the next two weeks. (ACTION ITEM)

Mrs. Sloane continued by suggesting the committee ask Ned Stetson to become an advisor of the Steering Committee due to his extensive experience with hydride storage issues. Since he was not an NHA member, she suggested that maybe one of his clients was a member and could join through that avenue. Mrs. Hall reminded the committee that while Steering Committee members must be NHA members, the advisory committee did not have to be. Therefore, it would be possible to include Ned as an advisor if the Steering Committee wishes.

Reactions from the NHA Annual Conference

Mrs. Hall then asked for any reactions from the NHA Annual Hydrogen Conference 2006 in Long Beach, inquiring if there were any events that should be added, removed, improved, etc.

Dr. Sloane stated that for her, much of the value of the Conference did not come from the conference itself, but from the side meetings. But, for the events she did attend, she would like to see more of a panel-style discussion with open dialogue. There should be a focus on constraining the amount of time for opening remarks/speeches from the panelists, as they tend to be more of advertisements than anything else, and maximize time for Q&A sessions.

Mrs. Hall responded stating that there were sessions called “Idea Forums” that were held this year to mimic the style that Dr. Sloane was describing, and that those could be expanded to include C&S related issues. She expanded upon this idea questioning if the committee felt that it was valuable to have training events or the IEA/DOE National Codes and Standards Coordinating Committee in conjunction with the Conference? Or did it simply increase the number of events that you had to skip because it overlapped with some other session?

Mrs. Sloane stated that she liked having multiple events, it draws a larger group of people for attendance, and it helps to justify travel as no one single event can justify the time and travel costs. Also, by piling multiple events on top of each other, it causes events to

become more exclusionary as the audience has to pick which event is the most important for them to attend. This increases the level of professionalism of the audience in attendance and can result in more productive sessions.

Mr. Serfass informed the committee that the National Association of State Fire Marshalls is interested in organizing an event with the Department of Transportation for emergency responders, in conjunction with the NHA Annual Conference next year in San Antonio.

Decision Items (12:23)

Confirmation of New Committee Chair and Vice Chair

Mrs. Hall turned leadership over to Mr. Hazelton to lead the voting for the new Committee Chair and Vice Chair. Mr. Hazelton first introduced Dr. Sloane from General Motors as the nominee for Chair, and asked for any additional nominations, questions or comments. Hearing none, Mr. Hazelton then asked for all those in favor of Mrs. Sloane's nomination to say "aye," and she was unanimously approved as the new Codes and Standards Steering Committee Chair. Mr. Hazelton then introduced Mr. Joseph of Air Products and Chemicals as the nominee for Vice Chair, asking for additional nominations, questions and comments. Hearing none, and elected by ayes, Mr. Joseph was also elected unanimously to the position.

Mrs. Hall then acknowledged the roles are difficult, as anyone acting as chair or vice chair must look at needs of the membership and the industry overall, as well as representing your company. Mrs. Hall then thanked Dr. Sloane and Mr. Joseph for stepping up and taking on the responsibility for leading the committee.

Information Items (12:26)

NHA Contract with NREL for Safety Report and Coordination

Mrs. Hall opened up this section of the meeting by explaining that NHA had finalized the contract with NREL for the *Hydrogen and Fuel Cell Safety Report*. The contract provides for eight newsletters which NHA writes and solicits submissions for, and three proceedings for in-person meetings that occur throughout the year. Mrs. Hall added that the April newsletter contained the proceedings of the March meeting. These took a different format than in the past, and will be the format used for future publications. Those who participated in the NCC teleconference yesterday know that the next NCC in-person meeting is to be held in late July or early August. Mrs. Hall also noted that NHA staff will make sure the committee had access to teleconference information as well as all publications through the NHA members only site; and that NHA staff is always open for ideas and contributions for the Safety Report publications.

NHA Contract with DOE for C&S Outreach and Technical Work (12:28)

Mrs. Hall stated that the NHA has DOE funding for C&S Outreach and Technical Work, as well as the remaining ceiling of \$150,000 to bring the contract to conclusion in March, 2007. The NHA has to be sure it can handle the cost-share requirements, as well as pick

up any unallowables (management fees, travel, etc), and added that if there are any items that should be added to the NHA C&S priorities for this contract, the members should let NHA staff know (ACTION ITEM).

Dr. Sloane then asked why the contract is coming to a conclusion. Mrs. Hall replied explaining that in 2001, the NHA bid and won a DOE solicitation for a three year contract. The funding had been delayed and so the contract had been extended through March 2007, or whenever funding could be completed. Mrs. Hall added that as the committee knew, DOE recently issued a new C&S solicitation to manage the DOE C&S work with NREL, and whoever wins the contract will need to be approached by the NHA to continue the C&S outreach and technical work, as a sub-awardee under the new contract. The NHA, in tandem with the US Fuel Cell, teamed with a resposdee for this management contract, hoping to help increase industry input on the DOE C&S priorities. Mrs. Hall explained that as NHA is on a proposal, she has very little knowledge of the status on the proposal, but DOE will be meeting in June to select the recipient. The NHA and USFCC roles are not to actually manage C&S work, but instead outlined what trade associations could help with; it's a joint proposal to become involved with the new contract recipients.

Discussion Items (12:33)

2006 Fuel Cell Seminar Invitation for NHA Workshop

Mrs. Hall explained that the NHA had once again been invited to submit a proposal to hold a Codes and Standards Workshop in conjunction with the 2006 Fuel Cell Seminar being held this November in Hawaii. As the University of Hawaii is close to the Seminar location, Rick Rocheleau indicated that he would present on the safety and permit issue that they had to deal with in building their hydrogen facility. Mrs. Hall added that Jim Ohi from NREL stated that he would also present at the Workshop. Mrs. Hall stated that the goal was to have four speakers at the event, so two more were needed, and also added that events such as this help to bring some funding to the NHA by gaining registration costs that can be put towards cost-share requirements, in addition to bringing greater numbers of Safety people together. Mrs. Hall asked is anyone from the from the committee would be able to speak on the status of fuel cells, US model codes, or HIPOC, and how information was being solicited from the hydrogen and fuel cell industry or other technical sources. Mrs. Hall added that the next *Safety Report* would include some of this information, and that a "Lessons Learned" database and bibliography is to be added to the DOE website.

Mr. Joseph answered that a group from Air Products is going to attend the Seminar, and that he would make sure someone from that group would be able to present at the Codes and Standards Workshop. (ACTION ITEM)

Hydrogen Industry Panel on Codes (HIPOC) (12:38)

Mr. Joseph explained that HIPOC was formed as a hydrogen industry panel developed to harmonize different installation codes. There are areas of conflict between ICC and NFPA codes, so the panel was formed with industry leadership, with help from NHA, ICC and NFPA, to go through the sets of codes to develop guidelines that avoid conflicts between the two. The goal is to make the technical requirements between the two the same. Mr. Joseph continued, explaining that in 18 months the new publications of ICC codes would be coming out, and HIPOC may be endorsing four proposals which address areas of conflict between the ICC and NFPA codes. During the current cycle, OEMs put in proposals, one was submitted by SAE, and one from Air Products on indoor dispensing. Mr. Joseph stated that they did not want someone going in and making a mistake, so indoor dispensing codes need to be developed before installation can begin.

Mrs. Sloane inquired about relevant fueling station codes, to which Mr. Serfass responded that current proposals ensure that PRD activation pressure levels are the same between SAE, NFPA, and ICC. In addition a proposal on fueling pad resistivity will be reviewed at the ICC Public Hearings in September.

Mr. Serfass continued saying there are no NFPA deadlines between now and the hearings, so that is why most of the HIPOC activities have been focused on the I-Codes. In the meantime, the job is to figure out where the codes between ICC and NFPA do not harmonize. Mr. Serfass asked for committee input as to any guidelines that the members had run into that were drastically different from each other with the installation of their equipment.

Dr. Sloane interjected that it would be very helpful for NHA to keep an eye on any updates that are made, and to provide information about warnings or general problems that may be coming up. Dr. Sloane further stated that many people feel that the issues regarding hydrogen vehicles can be resolved at the state level, but it really needs to be federal, as vehicle regulations are Federal. If the NHA sees local changes being made, alerting the members of the committee about them would be helpful. (ACTION ITEM)

Mr. Serfass replied that two tools are in place help with this. The NHA tries to make these issues known through the *Safety Report*, and additionally, the NHA plans to put together a website that will have draft code language as it develops for the committee, but not in a public form.

Dr. Sloane said that it might be useful to hear from other people, gathering issues that have come up in the past to see if they may come up again with new items in hydrogen codes.

NFPA committees, getting organized for effective voting (12:49)

Mr. Collins explained that a year ago it was proposed how the NHA could be of value to its members, and it was seen that a lot of members have voting positions on different codes. A voting list was collected to help the members work together for mutual benefit through unified voting procedures when the text is being written at the technical committee level.

Mrs. Hall added that the NFPA TC responsible for NFPA 52 would be meeting next week in Livermore.

Dr. Sloane stated that GM and DaimlerChrysler are not members of the NFPA TC as far as she knew, as to avoid pushing automotive expertise; however SAE is a member involved with fueling stations. GM has a member, Mike Steel, but he is representing SAE, not GM.

Mr. Joseph explained that SAE and CGA represent the interests of their member companies, and that Air Products and others have a vote on NFPA 55. He added that the NFPA voters are allowed to abstain if they do not have an opinion on a subject, rather than having to vote yes or no.

Mr. Collins replied that people are more interested in getting the votes and codes right, not who is doing the voting. Mr. Serfass then asked how the group should best go about getting people together.

Mr. Collins responded that an issue can be brought to the committee for discussion, so that those without a vote can still voice their opinion on the subject, and help mold the voting and opinions of those who do have the votes. Those with the votes can then act upon the opinion of the committee as a whole; everyone has an influence on every vote.

Mrs. Hall asked if the table could be modified with the names of individual voting members, so those who do not know everyone can see who gets to vote on what issues, and pick someone they are familiar with to bring their opinion to for the vote. Mr. Collins wondered if that is public domain information, as it sets people up as targets for vote influencers.

Mrs. Hall replied that she would look into the status of that information as being in the public domain or not, and said she would provide a list that provides greater detail about who has what votes if it is permissible. **ACTION ITEM**

The committee members then all detailed the voting positions they held, which can be found in the NFPA votes table, which can be found in Appendix 2.

Mr. Joseph – CGA has voting positions on NFPA 55 and 52,

Mr. Collins – UTC has voting positions on NFPA 53, 850, 851, 853, and have people involved with 70

Dr. Sloane – Mike Steel should be listed as SAE, not GM in 52, and NFPA 2, and Tony Androsky of the USFCC has applied for NFPA 52

Dr. Sloane explained that the US Fuel Cell Council felt NFPA voting was full, and members were notified of that within the last month; the full list of members could be known now. Mrs. Hall replied that that was correct, as all committees were balanced with a formula; it was seen that more permitting officials were needed so that interested parties could have a few seats on the committee. She agreed that coordination is beneficial, as hydrogen experts need to be coordinated in order to be heard in TCs that are dominated by non-hydrogen experts.

Mr. Serfass added that the table had been updated and was now available on the NHA members-only site.

Other Items (1:02)

Mrs. Hall introduced that the DOE Coordinating Committee mission statement has been developing, with the purpose of having a group to coordinate with all the coordinating committees to remove duplication of effort. Mrs. Hall continued by explaining that due to Susan Townsend's resignation, and lack of interest by others to take over the drafting, the mission statement had not progressed, so Mrs. Hall told Russ Hewett that she would take over where Mrs. Susan Townsend had left off with the issue. Mrs. Hall wants to give the NHA Steering Committee a chance to input. Mrs. Hall said she would be sending out the document for the committee to edit with "track changes." (ACTION ITEM)

Next Meeting (1:05)

Mr. Serfass stated that a future meeting should be held prior to the September ICC Public Hearings, and additionally it could be scheduled prior to the next NHA Board meeting on July 20th so that the Committee can speak out for or against a proposal, and report to the Board about any other developments with the Committee. Mr. Serfass recommended either July 17th or 18th for the next meeting.

The next meeting of the Codes and Standards Steering Committee was then scheduled for 12 – 1:00 PM EDT, Tuesday, July 18th. (ACTION ITEM)

Mrs. Hall added that the NHA Board would like a report from the Committee at the meeting, either in person, by teleconference, or in writing. She asked that the Dr. Sloane and Mr. Joseph please see if they could be available to participate.

Mrs. Hall adjourned the meeting at 1:08 PM.