MHCC
Structure and Design Subcommittee Meetings Minutes
10-23-12 to 10-25-12

Contents

Actions and Highlights

- **Motion Structure2: Mr. Weinert made a motion to disband the Wind Task Force. Mr. Legault seconded.**
  - **Vote: Motion Structure2 passed unanimously.**
- **Motion Structure5: Mr. Walter made a motion to reject log 36. Mr. Scott seconded.**
  - **Vote: Motion Structure5 passes 8-3.**
- **Motion Structure6: Mr. Scott made a motion to update the reference standard to ASCE7-05 and update wind speed references, but maintain wind pressure tables and keep the wind zones as is. Mr. Wade seconded**
  - **Vote: Motion Structure 6 passes 6-1**
- **Motion Structure 7: Mr. Wade made a motion to reject Log 37. Mr. Legault Seconded.**
  - **Vote: Motion Structure7 passes 7-0**
- **Motion Structure8: Mr. Scott made a motion to approve Subcommittee minutes from October 18, 2011. Mr. Wade seconded.**
  - **Vote: Motion Structure8 passes 6-0.**
- **Motion Structure9: Mr. Walter made a motion to accept Log 79. Mr. Weinert seconded.**
  - **Vote: Motion Structure 9 passes 6-0.**
- **Motion Structure10: Mr. Walter made a motion to accept Log 56. Mr. Sheahan seconded**
  - **Vote: Motion Structure10 passes 6-0.**
- **Motion Structure11: Mr. Sheahan made a motion to accept Log #73. Mr. Walter seconded.**
  - **Vote: Motion Structure11 passes 8-0.**
- **Motion Structure12: Mr. Wade made a motion to take Log 77 off of the table. Mr. Walter seconded.**
  - **Vote: Motion Structure12 passes unanimously.**
- **Motion Structure 13: Mr. Walter made a motion to accept Log 77 as submitted. Mr. Legault seconded.**
  - **Vote: Motion Structure13 passes 8-0.**
- **Motion Structure14: Mr. Legault made a motion to reject Log 1. Mr. Wade seconded.**
  - **(tabled)**
- **Motion Structure15: Mr. Anderson made a motion to table Log 1 (3285) until the committee can review the supporting materials. Mr. Sheahan seconded. (Standing motion to reject the log.)**
  - **Vote: Motion Structure15 passes 6-1.**
- **Motion Structure16: Mr. Anderson made a motion to reject Log 3 (3285) based on action on Log 76. Mr. Wade Seconded.**
  - **Vote: Motion Structure16 passes 7-0.**
- **Motion Structure18: Mr. Anderson made a motion to reject based on the action taken on Log 2. Mr. Legault seconded.**
  - **Vote: Motion Structure18 passes 7-0.**

- **Motion Structure19: Mr. Anderson made a motion to table until we have more accurate information on the impacts of this change. Mr. Wade Seconded.**
    - **Vote: Motion Structure 19 passes 7-1.**

Structure and Design Subcommittee Meeting 10-23-12

The Structure and Design Committee was called to order at 1:30

Structure & Design Subcommittee Roll Call	**Date: 10-23-12**
Member	**Attendance**
Steven Anderson	Y
Ishbel Dickens	N
Timothy Sheahan	Y
Michael Wade	Y
Gregory Scott	Y
Jeffrey Legault	Y
William Stamer	N
Frank Walter	Y
Richard Weinert	Y
David Tompos - Chair	Y
AO	
Robert Solomon, NFPA	Y
Pat Toner, NFPA	Y
Joe Nebbia, Newport Partners	Y
HUD	
Henry Czauski, DFO	Y
Rick Mendlen	Y
Guests	
Jim Demitrus	MHCC Member
Theresa Desfosses	MHCC Member
Bill Freeborne	MHCC Member
Tim King	MHCC Member
Mike Lubliner	MHCC Member
Mark Luttich	MHCC Member
Manny Santana	MHCC Member
Lois Starkey	MHI
Mark Weiss	MHARR

Discussion

There was an update on the Wind Task Force. The last meeting was in March. No further meetings or calls since then.

There was a comment that this issue had been at the Wind Task force for 3 years.

An MHCC Member in the Producer category commented that there hasn't been much progress made. There was further comment that there is no data suggesting that units

have failed because of inadequate design despite large events. The homes have performed very well. There was further comment that the Task Force has lost participants to attrition or frustration. This will stay in limbo without there being a real need for it. There was a suggestion that the Subcommittee allow the option to update ASCE7 to new standard so that any manufacturer can update to current codes, but not change the pressures or zones in the tables.

An MHCC Member in the User category cited the proponent' testimony that homes under the current HUD standard are exposed to greater risk than contemporary standards.

There was a comment from a Subcommittee Member in the Producer category that part of the change is changing the measurement from fastest mile to 3 second gust. In the zone closest to the coast, manufacturers have to use ASCE7.

A Subcommittee member in the User category asked if the current HUD standard offered less protection than the ASCE standard. An MHCC member in the Producer category stated that it's derived from an older version of the ASCE standard.

Motion Structure1: Mr. Anderson made a motion to update the ASCE7 reference to the 2005 standard. Mr. Sheahan seconded.

Discussion
HUD Staff stated that when high wind standards were developed in 1994, a wider area for wind zone 2 was proposed, but the cost couldn't be justified then. The cost of this change couldn't be justified in the Task Force or in 1994. There was further comment that with an update to the reference standard, the wind speed references would need to be updated to match.

There was further discussion of updating the wind pressures in the table. It was clarified that some pressures were updated in the Task Force's efforts due to changes in wind zones, but that ran into issues of cost. There was further discussion that the pressures in the current tables are not taken directly from ASCE7-88 but was a combination of science and industry practice.

An MHCC member in the producer category recommended that the wind pressure table be left as is, and give the option of designing to ASCE7-05 instead of ASCE7-88. There was also discussion that the Task Force did a comparison based purely on science, and many of the values using pure science were less than the current tables.

A Subcommittee Member in the Producer category commented that the ASCE7 2010 version is completely different again.

There was concern expressed from the public of whether any change was needed and whether there was an issue with having two separate standards in place.

There was clarification from the Chair that the current motion is to update the ASCE7 standard reference. There is already an option in there. The motion would update that standard to use the current standard.

Amendment Structure1a (friendly amendment): Mr. Anderson amended his motion to direct the Wind Task Force to examine updating the ASCE7 reference to reference ASCE7-05 and report to the subcommittee with needed corresponding changes. All other changes related to these logs would be rejected. Mr. Sheahan (original seconder) accepted.

There was a question on whether this motion was directing the Wind Task Force to change direction.

There was a comment that the Task Force had already developed needed changes related to this.

A Subcommittee Member in the General Interest category stated that the Task Force has been working for years. Why delay further?

A Subcommittee Member in the General Interest category stated that the original proposal was approved by NFPA 501. There is probably documentation on justification when they reviewed updating the standard. A Subcommittee Member in the Producer category responded that NFPA 501 doesn't have to take into account cost. The AO clarified that NFPA 501 takes cost into account, but it is #4 or 5 on the priority list as opposed to #1.

An MHCC Member in the user category stated that the Proponent has been a part of the Task Force. The Member also asked what evidence of failures has been seen.

The Subcommittee Chair expressed concern that updating table currently in the standard does not show enough cost-benefit to continue.

A Subcommittee Member in the General Interest category asked how the reference standard could be updated but not the tables.

The Subcommittee Chair stated that the current tables don't match the ASCE7-88 either.

An MHCC member in the Producer category stated that the current tables greatly simplify what's in ASCE7.

The Subcommittee Chair commented that if testing continues to happen at 100% rather than 3 second gust, there will be problems. The Chair cited homes certified under the IRC were failing with HUD testing, which in some cases required 3 times the number of fasteners and clips.

A Subcommittee Member in the General Interest category suggested the proposal could be rejected and sent back to the proponent asking for a new proposal.

An MHCC Member in the Producer category stated that 3280 provides an option where local building code requirements exceed the standard; The Department can consider adoption of local requirement through rulemaking. It gives and avenue to approach the Department if there is a problem where a local jurisdiction wants to update requirements.

The DFO strongly recommended that the Subcommittee take some action on this Log, which was entered in 2007.

A Subcommittee Member in the User category asked if this is in NFPA 501 why this standard isn't moving in that direction. The Member commented that if Manufactured Housing is perceived as behind in wind standards, it is an excuse for local jurisdictions to drive Manufactured Housing out through zoning. There was further discussion of whether the industry had shown costs.

The Subcommittee Chair commented that cost data were presented to the Subcommittee showing increased costs of $2100 to 3400 per home depending on the zone. There was some discussion that cost analysis was already done with the initial proposal

HUD staff clarified that those costs were based on an earlier version of the Task Force's recommendation. The 3rd zone would have been dropped and use the same general mapping as the current standard. The initial proposal had initial design assumptions that were below the current levels, triggering the need for further analysis. The costs mentioned were not the latest Task Force draft.

An MHCC Member in the Producer category stated that the proposal would change Maine from having 2 areas in wind zone 1 to the entire state.

HUD clarified that the initial proposal's approach had been abandoned by the Task Force, which had new drafts.

An MHCC member in the General Interest category asked why the current draft wasn't being discussed and commented that discussing the old draft was a waste of time.

The Subcommittee Chair stated that the group has been stuck on this for years, suggested rejecting the proposal based on lack of benefit compared to cost, and update the reference standard. If failures can't be shown, the Subcommittee should dissolve the Task Force.

Mr. Weinert called the question.
Vote: Motion to call the question on Amendment Structure 1a passes 8-1.

Vote: Motion Structure1 (as amended by Amendment Structure1a) fails 1-7-1

Motion Structure2: Mr. Weinert made a motion to disband the Wind Task Force. Mr. Legault seconded.
Vote: Motion Structure2 passed unanimously.

Motion Structure3: Mr. Weinert made a motion to accept Log 36 in principle to update the ASCE7 reference to the ASCE7-05 version as the proposer presented but leave the tables in section 305 the same. Mr. Sheahan seconded.

Discussion:
A Subcommittee Member in the General Interest category asked why the Subcommittee would challenge what a group of engineers has been working on for several years.

The Subcommittee Chair commented that, based on the info from the Task Force; there isn't a cost benefit to make a change to the current standard.

A Subcommittee Member in the General Interest category asked how the Subcommittee can adopt the standard if it's not cost beneficial.

The Subcommittee Chair commented that the proposal can't go to HUD based on the current opposition and that it should be rejected.

A Subcommittee Member in the General Interest category stated that only costs had been discussed, but not benefits. The benefit is to keep HUD code houses from blowing away. You are talking about a benefit cost analysis. You haven't talked about the benefits. There was further comment that the Task Force had proposed changed to the tables and that should meet the requirements. There was a recommendation to let HUD worry about benefit-cost.

An MHCC member in the Producer category stated that if houses were getting blown over in the gulf coast, it would be easy to justify. The problem is we aren't seeing the issues or the demonstrated needs. To spend thousands more per house for a non-tangible benefit, doesn't justify the effort.

Vote: Motion Structure3 failed 2-6.

Motion Structure4: Mr. Anderson made a motion to table Logs 36 and 37 until the next conference call of this Subcommittee. The Motion failed for lack of second.

The Subcommittee took a break from 2:45 p.m. to 3:10 p.m.

Motion Structure5: Mr. Walter made a motion to reject log 36. Mr. Scott seconded.

The stated rationale was that the proponent of Log 36 was an advisor to the task force, but he went out on his own and proposed Log 36 separate from the Task Force. Log 36 is not the proposal of the Task Force.

A Subcommittee Member in the General Interest category stated that this rationale is not sufficient justification to reject the Log.

The AO clarified that Wind Task Force was created in response to Log 36, but that Log 36 predated the task force.

There was a comment from the public that the rational should be lack of showing of need, and cost-benefit issues.

A Subcommittee Member in the General Interest category suggested creating another Wind Task force to complete this work to come up with the proposal with benefit-cost analysis.

The Subcommittee Chair stated that the main reason that the Task Force disagreed with Log 36 was the benefit-cost analysis.

The AO stated that if you reject something because there has not been a benefit-cost analysis, you will never pass another proposal. If you expect every submitter to rise to that level, you'll never pass anything again.

A Subcommittee Member in the General Interest category suggested that the AO was in favor of Log 36 because a similar change was passed by the NFPA 501 Committee. The AO responded that they were not in favor of anything but had simply pointed out that Log 36 existed before the Wind Task Force, and that simply a lack of benefit-cost analysis was not sufficient rationale for rejection of a Log.

The Subcommittee Chair clarified that there is a benefit-cost analysis and the analysis does not support the change. The justification is that the cost presented by the Task Force outweighs the benefits.

There was clarification that the Task Force's current draft would not impact all Manufactured Homes. The maps were kept the same, but changed the measurement to 3 second gust along with a few other changes.

A Subcommittee Member in the User category suggested rejection on the grounds that a new 2010 standard has been adopted by ASCE7 and put the onus on the proponent to resubmit.

A Subcommittee Member in the General Interest Category commented that the Subcommittee needs to act on it. This is a 1988 standard and it's critical for health and safety. In California, if they are building houses next to an earthquake zone, they will

cost more. The new science shows that the wind speeds are going further inland. The Subcommittee needs to accept or reject based on all of the principles.

Mr. Walter called for the question. Motion passes 7-0
Vote: Motion Structure5 passes 8-3.

An MHCC Member in the General Interest category expressed objection to not updating the standard.

Motion Structure6: Mr. Scott made a motion to update the reference standard to ASCE7-05 and update wind speed references, but maintain wind pressure tables and keep the wind zones as is. Mr. Wade seconded

A Subcommittee Member in the General Interest category suggested reforming the Wind Task Force.

The Subcommittee Chair responded that the Wind Task Force has worked for years and they haven't come up with anything.

An MHCC member in the Producer category stated that with this proposal there was very little work for HUD to do updating the wind speed references.

There was further comment that, because this is an option, there would be no need for cost analysis. There was clarification that there would be cost for manufacturers currently designing under ASCE7-88.

A Subcommittee Member in the General Interest category stated that HUD would want changes to the standard and benefit-cost analysis. HUD could then take that data and massage it as necessary. The Member suggested a Wind Task Force come up with the actual proposal to HUD.

The Subcommittee Chair pointed out that, under the original proposal, some wind pressures would have decreased.

An MHCC Member in the Producer category stated that this proposal allows you to design the structure to ASCE7-05 or use a wind pressure table that is greatly simplified. There is no evidence to prove that the pressure table is inadequate or insufficient. The current standard referenced is out of date.

An MHCC Member in the User category stated that the value of human life and not just the first costs should be taken into account in any economic analysis. There was a question as to whether the task force spoke with the insurance industry.

A Subcommittee Member in the User category asked why the standard wasn't being updated to the 2010 standard. The Subcommittee Chair responded that it had been hard enough agreeing on the 2005 version. There was further response from a

Subcommittee Member in the Producer Category that the 2010 was significantly different than the 2005 standard.

Vote: Motion Structure 6 passes 6-1

There was clarification from a Subcommittee Member in the General Interest Category that they were opposed to the last action due to the disconnection between the tables and the reference.

There was further clarification that the reference was an optional path.

Log 37
Motion Structure 7: Mr. Wade made a motion to reject Log 37. Mr. Legault Seconded.

The rationale for the rejection was based on rejection of Log 36 which is the companion change; also considering the fact that we have made a provision for ASCE7-05 as an update.

A Subcommittee Member in the General Interest category asked if rejection of Log 37 would make the last motion meaningless. The standard was updated but you can't anchor in accordance with the new standard.

There was clarification from a Subcommittee Member in the Producer category that if you follow the reference you would use all of the provisions including the anchors.

An MHCC Member in the Producer Category stated that the last motion updated the reference standards without changing the existing pressures, which govern 306. New Ground anchors would only come into play when the reference standard is used. Log 37 can't be passed without Log 36.

The AO commented that the proponent of Log 37 included a report on benefit-cost analysis

There was clarification that the Task Force had not reviewed Log 37 at all.

An MHCC Member in the Producer category pointed out that Log 37 would remove a 1.5 safety factor and replaces it with a table.

HUD staff stated that this would change requirements in wind zone 1, which the Task Force had not planned to do. They further stated that the anchors need to be linked to the pressures used in the table, or use all of ASCE7.

Vote: Motion Structure7 passes 7-0

Motion Structure8: Mr. Scott made a motion to approve Subcommittee minutes from October 18, 2011. Mr. Wade seconded.
Vote: Motion Structure8 passes 6-0.

Log 79
Log 79 would require certification on vinyl siding and polypropylene siding. This proposal would require testing and certification to be done on vinyl siding and polypropylene siding.

The Subcommittee asked the proponent several questions about Log 79.

The Subcommittee Chair asked about the costs of certification.

The proponent responded that cost data is spread across all users, not only Manufactured Homes. It's approximately $4,000/year in administrative cost, and $0.02 per 100 sq ft. 97% of Vinyl siding is already certified and about 50% of polypropylene. The cost is in inspections.

A Subcommittee Member in the General Interest Category stated that the reference standard needs a year. The AO clarified that the year is 2006.

There was discussion that this step would provide protection for all involved.

An MHCC member in the User category asked if the standard dealt with weather protection, drainage, and pan flashing.

The proponent responded that it does include flashing details, but not pan flashing.

There was clarification that for wind rating of the product, in higher wind zones the product is tested to those pressures.

Motion Structure9: Mr. Walter made a motion to accept Log 79. Mr. Weinert seconded.
Vote: Motion Structure 9 passes 6-0.

It was clarified that the 2006 year of the standard can be added editorially.

Log 56
Log 56 adds a reference specification for MDF for interior applications.

Motion Structure10: Mr. Walter made a motion to accept Log 56. Mr. Sheahan seconded

There was a comment that this is a longstanding shortfall in the HUD code.

The Subcommittee Chair stated this this creates an MDF benchmark for quality. There is a formaldehyde provision that is similar to particle board. It does not require ongoing testing.

It was suggested that this would not modify the HUD standard with respect to formaldehyde.

Vote: Motion Structure10 passes 6-0.

Log 73
Based on internet research, this does affect formaldehyde levels in particle board. It requires what is being done with the CARB standards. There was discussion that this log is difficult to act on without knowing what EPA is planning on formaldehyde standard. .

HUD staff clarified that HUD standards prevail in the case of a conflict.

Motion Structure11: Mr. Sheahan made a motion to accept Log #73. Mr. Walter seconded.
Vote: Motion Structure11 passes 8-0.

Log77
Log 77 had been tabled.
Motion Structure12: Mr. Wade made a motion to take Log 77 off of the table. Mr. Walter seconded.
Vote: Motion Structure12 passes unanimously.

The proponent introduced suggested edits.

Motion Structure 13: Mr. Walter made a motion to accept Log 77 as submitted. Mr. Legault seconded.

There was discussion on some of the suggested edits. "Acceptable engineering practices" was removed because a third party approves all submittals and it aligns with accepted engineering practices at the point where the PIA approves it.

A Subcommittee Member in the General Interest category expressed concerns about removing that phrase. The standards don't cover all elements of design. This would give *carte blanche* and the DAPIA would have to approve or reject.

A Subcommittee Member in the Producer category stated that the third party won't approve something that isn't in line with accepted practices. There was further comment that there is no definition of accepted engineering practices.

There was further comment from a Subcommittee Member in the General Interest category that the term accepted engineering practice is widely used.

There was further discussion of changes made after third-party approval.

There was a comment from the public that the monitoring contractor is instructing manufacturers to make changes based on accepted engineering practices and not the HUD standard. It's not a defined term and is a moving target.

Vote: Motion Structure13 passes 8-0.

Structure and Design Subcommittee recessed at 4:40 p.m.

Structure and Design Subcommittee Meeting 10-24-12

The Structure and Design Subcommittee was called to order

Structure & Design Subcommittee Roll Call	**Date: 10-24-12**
Member	**Attendance**
Steven Anderson	Y
Ishbel Dickens	N
Timothy Sheahan	Y
Michael Wade	Y
Gregory Scott	Y
Jeffrey Legault	Y
William Stamer	N
Frank Walter	Y
Richard Weinert	Y
David Tompos - Chair	Y
AO	
Robert Solomon, NFPA	Y
Pat Toner, NFPA	Y
Joe Nebbia, Newport Partners	Y
HUD	
Henry Czauski, DFO	Y
Rick Mendlen	Y
Guests	
Jim Demitrus	MHCC Member
Theresa Desfosses	MHCC Member
Bill Freeborne	MHCC Member
Tim King	MHCC Member
Mike Lubliner	MHCC Member
Terry Nelson	MHCC Member
Leo Poggione	MHCC Member
Adam Rust	MHCC Member
Manny Santana	MHCC Member
Lois Starkey	MHI
Michael Wade	MHCC Member
Mark Weiss	MHARR

Discussion

Log 1 (3285)

Several people commented that the product in Log 1 looks proprietary.

HUD staff commented that part of the background of this is questions as to the current testing and whether it's valid or not.

There was further discussion about the fact that there is no proposal language included.

Motion Structure14: Mr. Legault made a motion to reject Log 1. Mr. Wade seconded.

Rationale is that there is no substantiation included with the proposal.

There was discussion of asking the proposer to resubmit with specifics.

There was discussion that there is background information on this Log at NFPA. This was an old Log and the information has been there, but newer members have not seen it.

There was a suggestion to table.

Motion Structure15: Mr. Anderson made a motion to table Log 1 (3285) until the committee can review the supporting materials. Mr. Sheahan seconded. (Standing motion to reject the log)

Vote: Motion Structure15 passes 6-1.

Log 3 (3285)

There was clarification that this was a version of the total sprinkler proposal before MHI revised the proposal. It was a HUD proposal, and then MHI got involved.

Motion Structure16: Mr. Anderson made a motion to reject Log 3 (3285) based on action on Log 76. Mr. Wade Seconded.

Vote: Motion Structure16 passes 7-0.

Log 4 (3285)

This Log appears to be an exact Copy of Log2, which was accepted in principle with modifications.

Motion Structure17: Mr. Anderson made a motion to accept Log 4 (3285) in principle based on action taken in Log 2. Motion failed for Lack of a second.

There was discussion on whether it could be accepted in principle because it talks about local jurisdiction. There was further discussion that the change was in the wrong location in the standard.

Motion Structure18: Mr. Anderson made a motion to reject based on the action taken on Log 2. Mr. Legault seconded.

There was a comment from an MHCC Member in the Producer category that this work is done by a licensed contractor, not the installer.

The Subcommittee Chair stated that the language doesn't address who is responsible. There was further clarification from an MHCC Member in the General Interest category that state or third-party inspects site drainage, not who did the work.

Vote: Motion Structure18 passes 7-0.

Log 80
There was discussion on Log 80, which is a change to formaldehyde requirements in 3280, and would allow for quicker results. ASTM 6007 is the standard. This would reduce the size of the testing chamber. The testing agency is required to show equivalency to the larger chamber. This is in the CARB requirements, or it is an option. They are adding an easier, less expensive way to test for formaldehyde. There is question on whether it's as accurate, but I don't have info to show one way or the other.

Motion Structure19: Mr. Anderson made a motion to table until we have more accurate information on the impacts of this change. Mr. Wade Seconded.

There was a request that the Subcommittee Chair put together more information.

HUD staff commented that the larger chamber test has served well for 30 years, and that there are questions about the reliability of the smaller chambers. There was further comment that HUD would need to wait for EPA's decision on their formaldehyde requirements. HUD has raised the issue with EPA. There was a suggestion to wait on this issue.

There was a comment that information will be available when EPA comes out with a decision.

There was a clarification that parts per billion test is an air test, but HUD tests at the source.

The Subcommittee Chair stated an opinion that the HUD standard is adequate. There is CARB-certified product that fails HUD requirements when a finish is added.

There was discussion on whether this change would add cost. It was clarified that it would add revenue for the tester because they could qualify more product in a shorter time.

There was further clarification that HUD has to create a rule that is in line with EPA's decision.

Vote: Motion Structure 19 passes 7-1.

There was a motion to adjourn and a second with unanimous approval. The Structure and Design Subcommittee Adjourned at 9:50 a.m.