FLORIDA BUILDING COMMISSION
Plaza Beach Resort and Spa
600 North Atlantic Boulevard
Daytona Beach, Florida 32118
Swimming Pool Technical Advisory Committee
Concurrently With The
Electrical Technical Advisory Committee
October 14, 2015
10:00 AM

SWIMMING POOL TAC MEMBERS PRESENT:

Jim Batts, Chairman
Jordan Clarkson
John O'Connor (late arrival)
Gordon Shepardson
John Wahler
Kevin Flanagan
Bill Dumbaugh
Mark Pabst
Bob Vincent

SWIMMING POOL TAC MEMBERS NOT PRESENT:

Tom Allen
Corky Williams

ELECTRICAL TAC MEMBERS PRESENT:

Kevin Flanagan, Chairman
Joseph Terito
Clarence Tibbs
Ken Castronovo
Nelson Montgomery for Leonard Devine, Jr.
Dwight Wilkes
Steve Mitchell for David Rice
Neil Burdick
Shane Gerwig

ELECTRICAL TAC MEMBERS NOT PRESENT:

Roy Van Wyk
Oriol Haage

COMMISSIONERS PRESENT:

Fred Schilling
Jeff Stone
Jim Schock

STAFF PRESENT:

.

Jim Richmond
Mo Madani
Jim Hammers
Chris Burgwald
April Hammonds
Norman Bellamy

MEETING FACILITATION:

The meeting was facilitated by Jeff Blair from the FCRC Consensus Center at Florida State University. Information at: http://consensus.fsu.edu/

Welcome:

Time: 10:00 am

Jeff Blair welcomed everyone to the Florida Building Commission Concurrent Swimming Pool and Electrical TAC Meeting in Daytona Beach.

Mr. Blair performed roll call for both TACS and concluded there was a quorum for both with 9 of 11 members present on each TAC.

Approval of Agenda and Minutes:

Mr. Blair provided a total breakdown of the agenda for the meeting today.

Swimming Pool TAC:
A motion was entered by Mr. Batts to approve the agenda for today's concurrent meeting with the Electrical TAC and the facilitation summary report from the September 28, 2015 teleconference call held concurrently with the Electrical TAC. Mr. Flanagan seconded the motion, the motion passed unanimously.

Electrical TAC:
A motion was entered by Mr. Flanagan to approve the agenda for today's concurrent meeting with the Swimming Pool TAC and the facilitation summary report from the September 28, 2015 teleconference call held concurrently with the Swimming Pool TAC. Mr. Batts seconded the motion, the motion passed unanimously.

Phase I – Low Voltage Lighting in Residential Pools for New Construction:

Mr. Blair explained the ranking process and that this will be completed separately for each TAC.

There was extensive discussion from both the Electrical and Swimming Pool TAC.

Mr. Blair provided a summary and provided two options for ranking if the language was acceptable to the group. The two options were:

A) Require low voltage lighting in residential pools for new pools (using Miami-Dade requirements)
B) Maintain NEC requirements for new residential pools.

Mr. Blair stated the options would be voted separately by each TAC group.

Mr. Blair then asked for any comment from the public attendees.

Phase I – Low Voltage Lighting in Residential Pools for New Construction (cont.):

Bryan Holland, NEMA stated the comments made today make sense except when we talk about making the code above a minimum or enhancing safety. He said this is not what has actually occurred in Miami-Dade and Broward County, what they did was to simply eliminate an alternative equally safe method for providing underwater illumination. Mr. Holland continued with technical information and historical background.

Chris Sloan stated he did not want to get ahead of himself as Phase II is very critical and this phase is his passion but the issues being discussed are relevant and he said he believes that we do not want to send a message that high voltage lighting is the only thing that would make a difference. He said stating this would create a false sense of security and lead to a panacea if low voltage lighting was all that was required, your pool would be safe. Mr. Sloan said he is the first to admit and has been very clear from the beginning that his family incident he wanted to make clear that they had low voltage lighting in their pool and through mitigating factors involving grounding, bonding and corrosion in their area led to his son's electrocution in the pool when he made physical contact with the pool light. However, he said he had to say there have been many comments made this morning and he said if one thing can make a difference, it is like a series of steps and you do not want to find out in hind sight that you could have taken that step. Mr. Sloan said what he is concerned about is that if this kind of brushes off and goes into the past and does not become a part of awareness and education and we kind of defer to the Building Code and status quo that somehow this will just disappear from people's contentiousness and it will happen again. He said high voltage ground interrupters without going into very much detail with specifics due to ongoing litigation, but these devices do fail, have failed and it is the construction of the light whether it is aluminum or stainless steel verses plastic there is a number of factors, but as it was just stated there is not a consistency between the Codes and he feels if we can start making incremental steps and he feels Phase II is absolutely worth discussing this adds another layer protection. Mr. Sloan stated he is not saying this is in any sense a full on solution. He said he would like to thank the group again and would like for them to consider if they were sitting on the other side of the table and your son was dead, he is not certain in his shoes he feels it might be a different conversation if there are multiple things that we can do at little to no cost, cost neutral and are not going to undermine and more importantly if a change is made then it creates the idea of maybe there is an issue with pools and as a homeowner I need to address if it is electrical or grounding or could it be my pool deck was not grounded correctly. Mr. Sloan stated again he is not sure if the group was sitting in his seat if they would not think differently because as a parent to experience this kind of loss, you are looking for every possible thing you can do to prevent a black swan incident of this happening to your children and it is just one small thing and he does not see how as there are other things that are important as well, but he does not see how this is going to topple the pool industry. He said as for products in his new pool and all have asked did you really put in a pool, the answer was yes and they do have LED lighting and this is where the industry is going and granted high voltage lighting is a significant part of sales and he is not an electrician, however, again he wanted to point out is that we need to start with incremental steps they are so important and if we kind of walk out of this room and nothing is done, then this recedes into the past and electrocutions will continue as this is not purely a high

Phase I – Low Voltage Lighting in Residential Pools for New Construction (cont.):

voltage issue. Mr. Sloan stated we do know and we have acknowledged in this room that there have been incidents involving electrocution in pools and Malls where there have fountains, miniature golf courses, which happened not so long ago, we need to take whatever steps we can to remind people of the importance of electricity and water are a dangerous combination. He further stated he had heard many times during this meeting that if there is proper installation there should not be a problem. Mr. Sloan said that things are not always properly installed and there are mitigating factors that happen downstream of the installation like five houses down the street or corrosion on a dock or a transformer so that should not alone be a reason if it is properly installed it should be fine, if the ground fault interrupters works it should be fine because things can fail and this is why precautions are made. Mr. Sloan again thanked the TACs and stated he would like to speak again later on Phase II and stated he felt they needed to walk out of this meeting today with some constructiveness and that creates education awareness.

Mr. Batts asked Mr. Sloan for verification of the type of pool lights in his pool, and also gave his condolences for the loss of his son.

Mr. Sloan said as he had stated before he had low voltage lighting in his pool. He also stated that this crusade is much bigger than his own situation.

Mr. Batts confirmed that Mr. Sloan's pool lights were not on during the time of the accident.

Mr. Sloan stated there was a failure of a transformer with low voltage lighting with high voltage electricity energized the pool lights. He stated he has to limit what he says again due to legal litigation but it was high voltage that entered the pool lights and gave an details of how the shock occurred and hit his son and his friend and the visual effects.

Jennifer Hatfield, Florida Swimming Pool Association provided her perspective of the low voltage lighting issue and wanted the group to know that the Phase II would be the higher target and most important. She also advised that the group needs to look at both commercial in addition to the residential and provided reasons and background for the requests.

There was additional discussion among the TACs including questions from the group to Mr. Sloan and Mr. Holland.

Mr. Blair asked for ranking of the two options that have been proposed at this time.

Option A: Require low voltage lighting in residential pools for new pools (using Miami-Dade requirements)
Swimming Pool TAC: (6-3) 67%
Acceptable 5 votes, Minor Reservations 1 vote, Major Reservations 1 vote, Not Acceptable 2 votes

Phase I – Low Voltage Lighting in Residential Pools for New Construction (cont.):

Electrical TAC: (5-4) 56%
Acceptable 4 votes, Minor Reservations 1 vote, Major Reservations 1 vote, Not Acceptable 3 votes

Option B: Maintain NEC requirements for new residential pools
Swimming Pool TAC: (7-2) 78%
Acceptable 6 votes, Minor Reservations 1 vote, Major Reservations 1 vote, Not Acceptable 1 votes
Electrical TAC: (5-4) 56%
Acceptable 4 votes, Minor Reservations 1 vote, Major Reservations 3 vote, Not Acceptable 1 votes

Jim Richmond advised the Committee Members of the Office of Communications and the role of the department with Media and if they are approached by the media present at the meeting today.

Break – 10 minutes

Mr. Blair called the meeting back to order. At this time Mr. Blair provided a full explanation of the ranking process and how these recommendations are formulated to be sent to the Commission for consideration. He also stated there was an additional option for discussion and ranking.

Mr. Burdick proposed a third option under Phase I for energy conservation purposes and provided background and his opinion of the need for the option.

Discussion followed among both TAC groups prior to ranking the third option.

Option C: Require low voltage lighting in residential pools for new construction (Miami-Dade requirements) for energy conservation purposes.
Swimming Pool TAC: (7-2) 78%
Acceptable 5 votes, Minor Reservations 2 vote, Major Reservations 1 vote, Not Acceptable 1 votes
Electrical TAC: (6-3) 67%
Acceptable 2 votes, Minor Reservations 4 vote, Major Reservations 0 vote, Not Acceptable 3 votes

Phase I - Low Voltage Lighting in Residential Pools for New Construction (cont.):

Mr. Madani provided information on the requirements in the Building Code for existing pools. He did advise that the Commission does not have any authority to mandate requirements on existing pools.

Discussion followed among the members. There were questions as to the reasoning for Phase II.

Mr. Blair advised that this was discussed on the conference call and the need to discuss the bonding, grounding and retro fitting.

Mr. Madani stated his understanding from the call was this section was to develop education on these matters.

Discussion followed among the members on retrofitting on existing pools. Discussion led to more education on existing pools.

Mr. Blair provided of summary of the votes on Option B and C and the possible need to revise the ranking if there is support for a possible Option D regarding retrofitting.

A new **Option D** was proposed to be ranked.

Ms. Hammonds brought up the Sunshine Law during breaks or lunch.

Mr. Holland spoke on the electrical technical issues with the electrical equipment of pools. He stated this group should shift to the other areas of the pool installation not excluding electrical but to be sure to cover grounding.

Ms. Hatfield spoke further on the educational aspect of pool safety with existing pools as well as new pools.

The meeting took a break for lunch at 12:15 pm.

Mr. Blair called the meeting back to order at 1:15 pm and provided a summary of the actions thus far with the two TAC groups.

Further discussion took place on ground fault and education.

Phase II – 2. Grounding

Mr. Sloan stated two companies have approached him and he has installed devices in his pool that detect the presence of electricity in the water. He said one is called shock alert and the other is called shock alarm. Mr. Sloan provided detail on how these devices operate and their function in the pool. He stated he was not sure if this could be brought up or mandated. Mr. Sloan advised that these are very inexpensive devices and also easy to install and described how they function in the pool. He said these devices were developed after there were electrocutions on lakes. Mr. Sloan stated he would like to see if these devices could be introduced as an option.

Ms. Hatfield stated that there should be more investigation of the use of GFCI on everything. She said she really feels that they need more information.

There was additional discussion among the Committee Members.

Option A: Require that all electrical circuits feeding equipment that could potentially energize a pool have GFCI protection for new residential and commercial swimming pools (the goal is to fill in any gaps in the current Code).
Swimming Pool TAC: (9-0) 100%
Acceptable 4 votes, Minor Reservations 5 vote, Major Reservations 0 vote, Not Acceptable 0 votes
Electrical TAC: (9-0) 100%
Acceptable 5 votes, Minor Reservations 4 vote, Major Reservations 0 vote, Not Acceptable 0 votes

Phase I – Low Voltage Lighting in Residential Pools for New Construction (cont.):

Option D: **Require LED pool lights with plastic niches or without niches in new construction.**
Swimming Pool TAC: (3-6) 33%
Acceptable 2 votes, Minor Reservations 1 vote, Major Reservations 3 vote, Not Acceptable 3 votes
Electrical TAC: (2-7) 22%
Acceptable 1 votes, Minor Reservations 1 vote, Major Reservations 4 vote, Not Acceptable 3 votes

Mr. Blair asked if the TACs would like to re-rank Option B under Phase I.

Swimming Pool TAC requested to re-rank Option B under Phase I.

Option B*:* Maintain NEC requirements for new residential pools. Re-Ranking:
Swimming Pool TAC: (6-3) 67%
Acceptable 5 votes, Minor Reservations 1 vote, Major Reservations 1 vote, Not Acceptable 2 votes

Mr. Blair asked if the TACs would like to re-rank any other Options.

The Swimming Pool and Electrical TAC requested to re-rank Option C.

Mr. Sloan stated that he wanted the group to be aware that it was made very clear to his family that had the light shell and the niche been made of plastic that would not have conducted electricity and the failure with the short and this would not have happened. He said he was a little bit surprised that the option was dismissed as this was a very large part of their case as the plastic would not have conducted electricity, the light shell was what was corroding and that was what was electrified not the actual bulb and assembly, the can and the ring is what electrified.

Option C: Require low voltage lighting in residential pools for new construction (Miami-Dade requirements) for energy conservation purposes. Re-Ranking
Swimming Pool TAC: (4-5) 44%
Acceptable 2 votes, Minor Reservations 2 vote, Major Reservations 2 vote, Not Acceptable 3 votes
Electrical TAC: (5-4) 33%
Acceptable 3 votes, Minor Reservations 2 vote, Major Reservations 1 vote, Not Acceptable 3 votes

Mr. Wilkes proposed and Option E to include monitoring devices for pool alert safety.

Option E: All residential pools shall meet the requirements of code and shall be require a monitoring device to detect stray currents in the water.

Mr. Sloan described the type of monitoring system he has installed on his pool and how they work.

Swimming Pool TAC: (2-7) 22%
Acceptable 0 votes, Minor Reservations 2 vote, Major Reservations 5 vote, Not Acceptable 2 votes
Electrical TAC: (3-6) 33%
Acceptable 1 votes, Minor Reservations 2 vote, Major Reservations 6 vote, Not Acceptable 0 votes

Phase II - 3. Retrofitting of Existing Pools:

Discussion continued among the Committee Members on retrofitting, and GFCI.

Option B: Require existing commercial and residential swimming pools to have GFCI protection for replacement pool pump motors, if not already in place; to provide GFCI protection for the replacement of 120 volt pool lights when they are replaced; and, as part of the close out inspection ensuring that the existing bonding system is complete and terminated properly.

Phase II - 3. Retrofitting of Existing Pools (cont.):

Swimming Pool TAC: (5-3) 63%
Acceptable 2 votes, Minor Reservations 3 vote, Major Reservations 3 vote, Not Acceptable 0 votes
Electrical TAC: (6-2) 75%
Acceptable 4 votes, Minor Reservations 2 vote, Major Reservations 2 vote, Not Acceptable 0 votes

Phase II – 4. Education Initiatives for Contractors and Consumers:

There was detailed discussion among the TACs regarding education and methods of providing education information.

Mr. Sloan provided his full support for education and the benefit for all families and owners. He gave detail of how this has provided data that has been of great benefit in Miami-Dade and Broward Counties.

Option A: Initiate a comprehensive educational effort to ensure there is a consistent message to enhance pool electrical safety issues for existing and new pools by working with existing resources including educational providers and associations. The effort should include defining the problems, identifying solutions and communicating a consistent message to stakeholders (contractors, consumers, home inspectors, pool maintenance providers, etc.) through training courses, flyers, brochures, websites, etc. Key issues for education messaging include lighting, bonding, grounding, GFCI, maintenance of existing pools, and monitoring devices to detect stray currents in the pool water, etc.
Swimming Pool TAC: (9-0) 100%
Acceptable 9 votes, Minor Reservations 0 vote, Major Reservations 0 vote, Not Acceptable 0 votes
Electrical TAC: (8-0) 100%
Acceptable 8 votes, Minor Reservations 0 vote, Major Reservations 0 vote, Not Acceptable 0 votes

Mr. Blair provided additional time for discussion among the public. He advised that the TACs will now make a motion for the actions to be presented to the Commission.

Mr. Batts entered a motion for the Swimming Pool TAC to recommend the Commission approve the TACs package of consensus recommendations. Mr. Flanagan seconded the motion. The motion passed unanimously with a vote of 8 to 0.

Mr. Flanagan entered a motion for the Electrical TAC to recommend the Commission approve the TACs package of consensus recommendations. Mr. Mitchell seconded the motion. The motion passed unanimously with a vote of 9 to 0

A quorum was determined for the Swimming Pool TAC voted unanimously, 8-0 in favor, to adjourn the meeting at 3:30 pm on Wednesday, October 14, 2015.

A quorum was determined for the Electrical TAC voted unanimously, 8-0 in favor, to adjourn the meeting at 3:30 pm on Wednesday, October 14, 2015.