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Action Items:
1. Solicit participation from manufacturers of pool/spa equipment including salt chlorine generators, pumps, filters, fittings, etc.
2. Gather data that supports bracketing at levels such as those listed in draft ballot 50i42r3 straw.

Discussion:
M. Costello read the anti-trust statement and S. Andrews began the meeting.

The first step in this process was to establish brackets then move to how these levels affect equipment. The task group was to provide bracketing that applies only to pools and spas. Anything less than 600 ppm is what is listed now and heater applications state up to 2000 ppm so bracketing began at 2000 to include these heaters. The group will consider salt water generators and equipment that are used for above 5000 ppm TDS. There has been no intent to address equipment affect at this time by the task group.

The group agreed avoidance of the term “salt water” and by using type 1, 2, 3 instead would avoid confusion in the industry since definitions are pre-existing for salt water and the TDS associated with it. The term fresh water is also inappropriately applied to pools/spas in the standard.

Comments ultimately address the affect of pool water at various TDS levels on equipment and the TG has not yet addressed this part of the issue.

Corrosiveness:
TDS is a good indicator of the level of salt water content. One proposal was to use the level of chloride in pool/spa water instead of TDS. S. Andrews stated he is addressing the standard that currently states 600 ppm and does not cover equipment over 3000 ppm. The question still remains if these levels are appropriate for pool/spa water and is TDS the appropriate way to address salt water for pools/spas.

Heater requirements are based on 2000 ppm TDS which require various parts to be replaced at this level to maintain the warranty. Equipment that is approved for pools/spas that is above 2000 ppm is based on components within the equipment that are affected by water that is greater than 2000 ppm of TDS. To approve a broad spectrum of TDS levels could create too wide a spectrum to address pools/spas.

The correlation between chloride and TDS is pretty consistent. Chloride is a by-product of sanitization and evaporation in pool water and still leads to the question if TDS is the correct way to classify salt water or clarify the TDS relationship to chloride.

Not too many salt water chlorine generators operate below 3000 ppm TDS. The standard must be updated to address this equipment. The TG will propose realistic bracketing to encompass what exists and is in use.

In the listing for each piece of equipment a specific note could be included on what the equipment is approved for from certification.
If TDS is the parameter used for water types then a qualification statement such as "assumes that 2/3 of TDS is chloride, therefore corrosiveness is based on the TDS value" could be inserted into the standard.

The group must consider the make up water, where it is coming from, and what is in it to begin with. The TG must work on the issue of equipment and corrosiveness as the second part of their charge.

The assumption by pool/spa operators of the definition of salt water is the same across drinking water and other industries. Pools/spas operating over 5000 ppm should be included in the standard. The definitions for salt water the industry sees are probably from aquariums or other drinking water industries. The reason for using type 1 or type 2 is to avoid the overlapping of definitions from other industries and further conflict.

The comment was made on a bracketing breakpoint. At what point is the cutoff for type 1. The first bracket would be a non-salt water bracket, the second would be a generic pool and the third would be a salt water bracket. The cutoff was based on available data for salt water chlorine generators and other equipment. 5000 ppm is the breakpoint for that bracket based on some manufacturers of pool equipment. More information is needed to accurately define the brackets. A range could be given or use a % of variance.

The reason to state the brackets is to provide data/guidelines for installers of pools/spas to use appropriate equipment for those waters of type 1, type 2, or type 3. It would assist in determining what equipment to use based on what type of pool. Health departments would have an easier time to evaluate if appropriate equipment is applied to the pool at installation.

Breakdown was investigated by the task group and brackets were based on the equipment for pools including pumps, filters, consultation with a metallurgist, and fittings.

WQA bracketing was consulted; however, it is for drinking water. This standard bracketing is for water in pools/spas. Bracketing is for supply water not background levels. Brackets are absolute for operation of design of pool/spa at installation.

The group will recruit manufacturers of salt chlorine generators and filter and pump manufacturers to the Task group for their input once the group gets to the equipment point of revisions. The group had a discussion on talking to equipment manufacturers regarding implications on material selection for brackets and equipment effects.

Equipment may be certified for each type (123) of water for pools/spas. The TG charge/purpose was to determine where in the standard to change equipment language based on TDS.

TG will work with these brackets and continue to investigate with manufacturers of pool equipment. More research will be done for thresholds of TDS with manufacturers of many equipment types.

Gathering this data will help support the ballot. Suggestion was to clarify types of water and a transition effect such as % variance or +/- ppm. This will be investigated by the TG and reported back in the next conference call.

Next Conference Call will be scheduled in June.