March 26 2015

Steve Andrews  
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Subject: Negative vote and comment on NSF/ANSI 50-2014 Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (50i100r1)

Dear Mr. Andrews:

Thank you for your ballot and comment on NSF/ANSI 50-2014 Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities on pool chemical evaluation (50i100r1). Below are your comments in italics and the response from Kevin Cox, task group member, in bold.

Submitter Comment:

I would agree with concerns expressed by Scot Hunsaker and would like to see this issue addressed before considering an affirmative vote.

Response: Thank you for your comments. It is important to clarify that the proposed toxicology requirements for pool chemicals will allow for more pool chemicals to become certified under NSF/ANSI Standard 50 than compared to the language currently in Standard 50. As it currently is written, NSF/ANSI 50 requires conformance of pool treatment chemicals with NSF/ANSI 60: Drinking Water Treatment Chemicals – health effects. Additionally, because there is no current method specifically designed to assess the health effects of pool chemicals, some states such as Florida require pool treatment chemicals to comply with NSF 60. NSF 60 requires chemicals and associated contaminants to be evaluated for toxicity assuming drinking water use which results in a significant overestimation of oral exposure when NSF 60 is used to assess a pool chemical product; thereby restricting the types of pool products that can be currently certified to NSF 50.

The proposed draft annex is intended to provide the technically correct way to evaluate recreational water chemical additives, which will also provide a more practical and cost effective evaluation for these products.

As stated in Section 3.2.2 and 3.2.3 of the draft, disinfection chemicals that are currently registered with the US EPA and are tested to NSF 60 will meet the requirements of this Annex and do not require any additional evaluation to comply with the proposed requirements.

For perspective, the dozen products that NSF has evaluated to date had existing toxicity data on the chemical ingredients or surrogates that NSF was able to use to appropriately assess the health effects of the overall product. Therefore, these did not require any new toxicity studies to be performed. The costs of the risk assessments for these products was one quarter to one half the cost of certifying a mechanical chemical feeder to NSF 50.

One of the primary concerns raised was not technical in nature but was related to perceived cost to chemical manufacturers. Commentators feared that the proposed toxicology requirements will be
more restrictive (and costly) and therefore inhibit product development and marketing. It is important to understand that this draft annex is not requiring toxicity studies on every chemical constituent contained in a swimming pool treatment product. However, it does require toxicity data for the ingredients that exceed 10 ppb in the treated water (which is appropriately less stringent than NSF 60 which requires this data for chemicals present at concentrations of 0.3 ppb and above).

Typically, the necessary toxicity data is found in the published toxicology literature and if toxicity data specific to the chemical in question cannot be located, the proposed toxicology procedure does allow for the identification of a chemical surrogate with sufficient toxicity data which may then be used to assess the chemical in question.

Requiring new toxicology studies to be conducted would only occur in the circumstance where a chemical ingredient exceeds 10 ppb in the treated pool or spa and the available toxicology data does not meet the minimum requirements and a surrogate chemical with sufficient toxicity data cannot be identified. This is an essential requirement for public health protection, and one of the key reasons for this much needed revision to NSF 50. There is significant risk associated with exposing humans to chemicals of unknown toxicity, therefore no one should be exposed to chemical products in any application that have not been assessed for human health safety.

I hope the above addresses your concerns with this issue. Please respond in writing (electronic is preferred) if you are satisfied with the response by April 9 2015. If we do not hear from you by that date, we will presume you wish to maintain your negative vote and your issue was not resolved. If you have additional comments, or wish to discuss these points further, please contact me directly.

Thank you again for your thorough review.

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