Task Group on NSF/ANSI 350
Teleconference Meeting Summary DRAFT
January 9, 2020

Discussion

A. Rubin welcomed everyone and called the meeting to order. J. Snider took roll and read the anti-trust statement. Six of the 11 voting members were present (54%) which did represent a quorum.

Discussion began on the issue paper WWT-2019-11 – coliform and virus indicators. A. Rubin explained that he submitted the paper based on the recent WERF risk assessment paper, noting that the report was based on achieving a log reduction target on certain organisms (bacteria, virus, protozoan, and helminth ova. He added that some WWT facilities were concerned with receiving water spiked with helminth ova. J. Bell expressed concerns that looking only at log reduction – if the initial concentration is very high, a specific log reduction can be achieved, and the end product can still be a source of contamination. A. Rubin answered that the intent was not to remove the performance requirement, but to add a log reduction. M. Defrain warned against the danger of spiking water with the harmful organisms, and the potential cost increase that would result. A. Rubin suggested using only testing for bacteria and viruses, possibly using coliphages. B. Drew asked how this potential change would affect the challenge water. J. Bell reminded the group that the standard already specifies to record the log reduction in the final report. B. Drew said that spiking the greywater to a high value in order to demonstrate a certain log reduction was not indicative of real-world conditions. The group spent some time discussing how secondary effluent could be used as an ingredient. E. Nejad suggested the group also consider how this would apply to large systems, and how a certifying body would handle the challenge organisms. The group also discussed how frequently the system would be challenged, and how the certifier could handle the requirements of those frequencies. J. Bell suggested that A. Rubin, S. Williams, and J. Bell work together to draft language to bring back to the Task Group.

The next topic of discussion was WWT 2018-1 fresh water addition. S. Williams provided a brief synopsis of the paper, and the recent 350i42r2 – fresh water addition straw ballot results. He explained that the ballot would revise language to break capacity into two categories – input capacity and output capacity. He noted that many newer greywater systems typically have an output lower than the input. There were some minor revisions to be made to the language based on the comments received. The group spent some time discussing which rating (output or input) the end consumer would be most concerned with, whether this could create confusion for the end consumer, and how the manufacturer’s determination of the test plan could create a misleading efficiency rating. D. Morgoch agreed to submit language regarding this.
The last agenda item was WWT-2017-9 – test dust alternative. Previously the group had discussed the issue paper and had decided to pursue the idea of removing the test dust from the influent challenge. A letter was drafted to solicit feedback from regulators on the topic:

During our last Standard 350 task group meeting, we discussed the subject of test dust in the artificial gray water mix. The initial intent of the ingredient was to create total suspended solids and turbidity. Testing has demonstrated that this ingredient causes clogging in membranes, meaning very few membrane systems can pass the test, not because they are poor technologies but because an artificial ingredient not representative of anything actually in graywater is plugging them up and making it impossible to finish a test. The other ingredients do create suspended solids and turbidity, sometimes even enough to meet the influent requirements. The task group would like your feedback on a proposal to remove this ingredient and modify the influent TSS and turbidity requirements. Some task group members feel this would allow the artificial graywater to provide a more realistic challenge, without affecting the validity of the test.

The group spent time discussing the responses received. R. Bastian inquired about using real wastewater that was processed to create greywater. S. Williams and J. Bell confirmed that secondary effluent was used, and raw influent was added as needed, as the secondary often did not meet the required levels of bacteria. S. Williams noted that removing the test dust would require changing the TSS and turbidity requirements in the standard. The group had considered keratin as a replacement, but found the keratin gelled when added to the water. S. Berkowitz suggested cellulose as a possible alternative, though it was noted that this would change the COD and BOD levels.

**Action items**
A. Rubin, S. Williams, and J. Bell to draft language for WWT-2019-11 – coliform and virus indicators
D. Morgoch agreed to submit language for fresh water addition.
S. Williams to revise 350i42r2 for TG straw ballot.
Next teleconference date May 7, 2020