Participants

Regu Regunathan, chair (ReguNathan and Assoc); Gary Hatch (Hatch Global Consulting Services); Eugene Leung (CDPH); Klaus Seeger (Seeger & Assoc); Tom Sorg (USEPA); Tom Spoden (WQA); Mike Blumenstein, Rob Herman, and Monica Leslie (NSF)

Discussion

R. Regunathan called the meeting to order. M. Leslie took attendance and read the anti-trust statement. It was determined that a quorum had been reached.

R. Regunathan provided a brief summary on the purpose and activities of the task group to date. California has found that there are many individual homes in the Central Valley area with private wells that have elevated nitrate levels. The hope is that NSF/ANSI 58 can be revised to include the option of a higher influent challenge concentration for nitrate in RO POU devices. Coway did some initial testing, and then repeated the testing. WQA with help from Shannon Murphy looked at using a higher membrane pressure to yield a higher levels of removals. These tests have shown good promise. The next task for the group was to determine reasonable influent levels on nitrate and nitrite based on this testing and the existing occurrence data provided by the group from California. R. Regunathan stated that he has reviewed all of the occurrence data again. He did not do statistical analyses, but in reviewing the raw data, he believes that a reasonable influent challenge would be 65 ppm nitrate and 5 ppm nitrite for a total of 70 ppm. (highest nitrite levels shown was only 3.2 ppm) R. Regunathan asked the group for feedback on the proposed draft that he submitted to the group and suggested that such dual challenge levels for nitrate-nitrite could be added to NSF/ANSI 58 in the same way that the standard does for arsenic.

The group discussed the fact that many systems include some type of carbon prefilter. T. Sorg raised the question of whether it would be possible for someone to add an ion-exchange component before the RO unit. How would one evaluate this? R. Regunathan stated that he has not seen this, but noted that the group has discussed the addition of ion-exchange as a post-filter. It was stated that as it is now, each component would have to be evaluated separately. The influent challenge levels would still have to be at the highest levels for each component test. The group discussed the challenges of using ion-exchange. E. Leung noted that it is difficult to determine the capacity. R. Herman gave an example of using ion-exchange for chlorine reduction. One would need to create a challenge that is very conservative so you know it will work in most areas and would then have to monitor the volume running through the system so you would know when it is reaching end of life.
R. Herman stated that there can be protocols that are based on the concept of treatment trains. This is slowly making its way into standards. E. Leung agreed that this would be a good approach. R. Regunathan stated his agreement, but also noted that even without that, this group has shown that there are ROs currently available that can yield the kind of data that the state of California is looking for. There was general agreement among the group. R. Regunathan suggested that the concept of a treatment train should be a subject for discussion at the upcoming JC meeting in May, however. R. Herman offered to send R. Regunathan a presentation that he had previously created on the treatment train approach.

R. Regunathan agreed to finalize the proposed draft and send it out for review by the task group prior to forwarding to full JC. R. Herman suggested sending it out prior to the May meeting so that any comments that are received can be discussed at the JC meeting in May. The meeting was adjourned.

**Action Items**

1. R. Regunathan will finalize the proposed draft and send to the task group for review.
2. R. Herman will forward information to R. Regunathan on use of a treatment train approach.