

Q&A

- **Pacific Northwest National Laboratory:** Do you know the half-life of peracetic acid in this complex matrix?
 - **Collin Knox Coleman:** We did not test for half-life, but the decay seemed to be strong in the matrix given how much we lost over 30 minutes. You just assume it is reaching an equilibrium somewhere. We measured after 24 hours as well, and it did continue to drop. It is difficult to tell if that was due to the shelf-life or not.
- **U.S. EPA:** Peracetic acid seems like an effective solution, but what happens downstream? Do you have a method for neutralizing it?
 - **Collin Knox Coleman:** Given the small scale, that was not a concern, but it was a big concern of ours. Given that pH-2 range, that would be a big concern and a consideration for scaling this process up. The hospital is one of the largest water users in Carolina, so maybe there would be a dilution effect, but that would certainly be worth investigation.
- **U.S. EPA:** What was the final volume of the peracetic acid?
 - **Collin Knox Coleman:** We worked with the hospital to design an infographic for their staff doing the dilution. At that concentration, it was about a shot glass worth. That would be a 15% concentration; they might recommend 5% for their safety instead. We are also working with them to consider – and the reason we are working with Eastman – the packaging design. So, if you could package it as a toilet bowl cleaner, that would be easier to use and with less risk to hospital workers.
- **U.S. EPA:** For some of the research we have done with spores, we used pH-adjusted bleach; did you consider doing that?
 - **Collin Knox Coleman:** We did not. We only looked at the virus inactivation for the chlorine study. If we had time, I would have liked to do a pH adjustment given the decay and equilibrium species varying by pH.
- **U.S. EPA:** Did the hospital not want to do it?
 - **Collin Knox Coleman:** We did not even bring it up to them. But that might be something they would want to consider in the future.