

Preparing For Disinfection

By Mike Stanzel, Source Water Specialist

This past fall and early winter there seems to have been an unusual amount of coliform bacteria violations compared to past seasons. Which brings up the questions: how do we prevent this from happening in the future and are we prepared to disinfect?

A lot of operators have some good prevention techniques that range from directional flushing, overflowing the tower on a monthly basis, installing sampling stations or finding better sample sites. However, when it comes down to the need for disinfection are you prepared?

Being prepared might mean, do you have the proper equipment to chlorinate and do you know how to use it? For example, do you have a chlorine pump? Does it work? Is it the proper size? Do you know how to figure your dosage? Does it have good tubing? Does it have a suction screen? Does it have a functioning check valve injector? Do you have a place to inject chlorine? Do you have a dedicated power outlet that only comes on with the well? Do you have a good clean bucket for chlorine? Do you have fresh chlorine? Do you have a chlorine residual tester? Is it calibrated? Does it work? Are the reagents expired? Do you know how to take a residual and where? Do you have extra sample bottles?

Does this seem like a lot of questions? I hope so, because how many of you can answer yes to all of them and be ready to start disinfecting? Realistically you might have to start disinfecting today or tomorrow and might not be prepared.

For example, I recently assisted a system that had to start immediate disinfection due to a water main break and having to shut down more than 10% of their system. The operator had quite a few years of experience, however, he has not had to chlorinate in the past 8 years so he called for assistance from Nebraska Rural Water.

Upon our arrival we discovered that this particular system was not prepared to chlorinate. First off they had to send an employee on a 2 hour road trip to go buy chlorine, a new clean bucket, tubing and fittings which turned out to be the wrong ones. We then proceeded to the well house only to find their chlorine pump was way oversized and pieces were missing from it. Fortunately I brought my pump that was all set up and ready to go. We installed it and figured the correct dosage and began disinfecting.

By no means am I scolding this system for not being prepared. Nebraska Rural Water was more than happy to help show them the steps in setting up a chlorinator because this is something that a system, hopefully, rarely ever has to do.

Since this is the time of year when things are not so hectic, you may want to take a little time to make sure you are prepared in case you need to disinfect. Please call Nebraska Rural Water if you would like assistance with this process.