

E-coli and Unprepared

By Mike Stanzel, Circuit Rider

As one of the Circuit Riders for the Nebraska Rural Water Association, I have worked with a lot of water operators throughout the state. We offer technical assistance in numerous ways. Often there are requests from operators to stop by when we are in the area. Then there are requests from operators that are in panic mode. Normally it is late in the week, they go to the clerk's office to get their mail and you guessed it, a letter from the Department of Health and Human Services informing them that they have a positive coliform sample. This letter is usually accompanied with a box of initial repeat samples. That's when we get the panic call. Usually our response is, "Do you have a chlorinator?"

The Department of Health and Human Services requires every water system to have a chlorinator available within 24 hours. As you all know Nebraska Rural Water has several chlorinators available that we loan out as needed. Also, if you are using more than one well, you need a chlorinator in each well house.

Recently I assisted a system that owned 2 pumps, however they were not ready to use. The system tested positive for E-coli and needed to start disinfection immediately. However when I arrived, I discovered that they were not prepared at all. Their two pumps were currently installed at the town's swimming pool. One was for some acid and one for chlorine.

The next problem was that when the pool was shut down the pumps were not flushed out properly and all the tubing and suction and injection lines were rotten. Also, they had no spare parts on hand. Fortunately I carry a kit containing new tubing, injectors, pump tubes, suction filters and even spare chlorinators. So with a little time spent refurbishing the pumps, we were able to start disinfecting in a few hours.

Here is a check list that may be helpful to you to ensure you are ready for disinfection, should the problem arise.

1. You will need a pump that is properly sized for your well. Having a pump too big or too small will not meet your needs. This is determined by how many gallons your wells pump.
2. All your well houses are required to have a dedicated outlet for power. Meaning the plug is only hot when the well is running.
3. You will need a good, clean bucket with a lid for chlorine.
4. You need to make sure you have a good injection point in your well's piping.
5. You need to make sure you have a good colorimeter to test for chlorine residual.
6. You also need to make sure you have reagents for Free Chlorine that are NOT expired.
7. You also should be prepared to go out and flush fire hydrants to ensure good chlorinated water is getting through your system and at a strong enough dose.

If you would like assistance in making sure you have all the proper equipment to disinfect in an emergency, please feel free to give me a call at 402-672-9084.