by Lonnie Boller

Helping new system operators is rewarding work

Kansas Rural Water Association staff members spend considerable time assisting new operators. I recall being a new operator; my mentor was Pat McCool who at the time was District Engineer with KDHE at Lawrence. I understand how a new operator of a smaller city or RWD feels. I understand that he/she wants to do the right thing, but in some cases, is not exactly sure of what needs to be done. There is not time for extensive water treatment or distribution system training courses.

As you may be aware, KRWA has operated a new operator training program since 2004. The program helps many operators – but most of all, it helps ensure that quality water is provided to the users of those public water systems. The program is funded by the KDHE, using federal funds provided by U.S. EPA. The assistance provided by KRWA ranges from on-site training to hands-on help. If interested, check out some of the assistance with the follow up documentation provided; KRWA is posting those on its Web site at www.krwa.net; then go to "Technical Assistance" and then, "Water and Wastewater Systems." There's a search button so letters can be pulled up by date, by staff member or by system.

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KRWA also provides short courses and other training classes and study guides to help the new operator successfully pass his or her exam. I think I am writing this article more for the board/council members who may want to be more aware of what the responsibilities are for a small system operator. Here is quick list I've made:

1. It is required by KDHE that systems do daily chlorine residual monitoring and they maintain at least a 0.2 mg/l of free chlorine or a 1.0 mg/l of combined chlorine.
2. Develop and follow a bacteriological site sampling plan. KDHE regulations require that water samples be indicative of the water in the distribution system. This means having a plan to collect samples from all areas of the system. KRWA has helped many new operators complete a sampling plan and has taught the operators how to properly collect the sample.

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Brad Rutland is typical of many new operators. He began to help the small town of Willis in northeast Kansas; he had no prior experience. He is a "part-time operator" with a full-time day job.

3. Routine flushing of the distribution system. KRWA trains operators on the importance of flushing distribution mains and towers to help maintain or improve water quality. Flushing needs to be conducted in a systematic manner, beginning at the source.
4. Locating and exercising valves. Operators should be able to locate and operate all valves in the distribution system. In case of a main break, a portion of the system ought to be shut down rather than curtailing service to the entire system. Chances for contamination are greatly increased when there is little or no pressure in the system.
5. Updating maps. Every system needs to have accurate and updated maps. This is an area of great need. The Kansas Water Office has introduced a new subsidy program to help offset 50 percent of the costs (up to $4,000) of developing GPS mapping. Check their Web site at www.kwo.org or call KRWA. We will help you complete the grant application.
6. Emergency water supply plan and cross connection control programs. All public water supply systems are required to prepare and adopt an emergency water supply plan. The plan should be readily available and kept up-to-date, especially the contact page. Cross connections on a distribution system can cause contamination of the drinking water under certain conditions. It is important that the system implement the plan after adoption; the cross connection control policy should consist of an approved ordinance and a system for locating cross connections and either eliminating them or protecting the system with the recommended backflow prevention devices.
7. Operator certification and training. Training should be considered an investment and not an expense. KRWA provides study guides so that operators are better prepared to take the exam. The quizzes are available through the KRWA Web site under "online resources."

I recently worked with Randy Brown, a new operator for the City of Harveyville. We had to start up and operate their new facility. Randy and I worked together setting up the chlorine and ammonia feed systems. I showed Randy how to operate and maintain the new chlorine analyzers. This can be a challenge for any new operator. Also completing paperwork required by KDHE can sometimes be overwhelming for a new operator.

I also worked with the City of Willis with their operations. The operator, Brad Rutland, is a new operator with no experience in the field. He is a part-time operator who has a full time job during the day. Brad's situation is typical of part-time employees for many small systems in Kansas. Having other full time work doesn't allow much time to operate the local water system and get the training necessary to prepare for the certification exam.

Members of governing bodies should consider calling KRWA if anyone has a question about the new operator and emergency assistance program. We would be pleased to attend any board or council meeting to discuss this or any other questions that anyone may have.