

KDHE sponsors new emergency assistance, operator training program

Late last fall, the Kansas Dept. of Health & Environment (KDHE) advertised for contractors, including technical assistance providers such as KRWA, to submit proposals to provide services to systems that might be without a certified operator or have a new employee who has no certification or the proper level and who needs on-site help. KDHE recently awarded the contract to KRWA to provide this on-site emergency technical assistance and training to water

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supply systems serving less than 3,300 population and that have lost an operator in charge of the system.

Since 1975 the State of Kansas has required that all public water supply systems be under the supervision of a certified operator. Does every system have a certified operator? The answer should be yes – but it's not. There are also times when a city or RWD might lose their only certified operator. What is the requirement for the system under such a circumstance? Too often, the utility only had one employee to take care of the system. Now, there is no one to take that person's place.

Response by system

What is a water system supposed to do when their operator is no longer available?

Among the first responses is to contact KDHE. Cities and RWDs or other public water systems that lose their operator in charge must notify KDHE by contacting Vickie Wessel at 785/296-2976.

Depending on the need, KDHE may contact KRWA to request that on-site assistance be provided. KRWA ensures that a staff member will be on-site within 24 hours of notice of such request by KDHE. That includes weekends or holidays if warranted. KRWA has the responsibility of providing assurances that the water system will remain in continuous operation so that the users of that system have quality water.

Helping the new operator

Kansas has nearly 100 people who are listed as

While it is ideal to have an experienced operator help educate new employees on the operation of the system, that doesn't always happen. Too often, an operator leaves on less than good terms.



On-site help for new operators is provided through a new KDHE program which is operated by KRWA. Above, KRWA Tech Jim Jackson shows City of Emmet's new operator, LaDonna Walker, how to collect and log bacteriological samples.

"operators in training" at any time. New operators, especially those working in systems that have a one-person shop, are often critically handicapped. Neither they, nor their city council nor RWD board are often aware of rules and regulations and the variety of responsibilities required to maintain compliance.

This is where the special focus of this contract comes in. It's unique nationally in that KRWA will assist the new

operator with the operation of the system to ensure that the system continues to provide quality water.

Testing do's and don'ts

For starters, the most obvious need is to test for chlorine residuals daily. There is only one way to accomplish that requirement and that is to take the chlorine residuals daily. Frequently, operators or other system volunteers do take chlorine samples but the collection point may be at the city shop, city hall or even their home. Samples need to be collected throughout the distribution system.

I've known some operators to try to shirk this responsibility. Meanwhile there are others who are convinced that it is essential to drive to the ends of pipelines in large rural water systems to gather such samples. What many small systems don't understand is that there is no regulation that requires that the operator take samples. Several large rural water systems have people who live at the ends of lines take those samples and generate a chlorine residual log, thereby reducing costs for the utility. That chlorine residual log is required recordkeeping and those records must be available to KDHE for inspection. It is required that chlorine residual logs be maintained for at least 5 years by the system.

Aside from the basics of ensuring good water quality, KRWA will teach the new operator what he or she needs to know about that particular water system to keep it functioning. This is provided on-site. While classroom training might be appropriate for some topics, the systems that receive help under this contract need to know how to operate their system. Additional training and materials will also be provided to the new

Again, what to do if your system has no operator in charge? Contact Vickie Wessel at KDHE in Topeka by calling 785/296-2976 to notify the agency that your city or RWD or public water system does not have a certified operator in responsible charge.

operators to help them take a certification exam later.

Joe's leaving?

While it is ideal to have an experienced operator help educate new employees on the operation of the system, that doesn't always happen. Too often, an operator leaves on less than good terms because of disputes with council or board members. KRWA has provided immediate help to various systems over the years where the only tool left by the previous operator was a set of keys and a roll of or rag-eared maps. The delivery is generally to the city clerk with the message, "Here you go; I quit." There's no one to fill the void. Because the city or RWD only had one employee, there's no one other than a

board/council member to step up and operate the system.

Your response?

Again, what to do if your system has no operator in charge? Contact Vickie Wessel at KDHE in Topeka by calling 785/296-2976 to notify the agency that your city or RWD or public water system does not have a certified operator in responsible charge.

KDHE will want to know if you have a person in mind to operate the system in order to issue an Operator In Training (OIT) license. The new person will be required to take the certification test in either six months or one year depending on the initial level of certification needed.



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Main types of assistance to new operators under the program

Depending on the needs of the system, the training and technical assistance under the new KDHE emergency assistance, operator training program includes but is not limited to:

- Issues associated with source of water (ground or surface water)
- Treatment concepts
- Well house requirements
- Minimum Chlorine residual requirement
- Sample site plan
- Disinfection - (chlorine safety)
- pH measurements and calibration
- Turbidity testing and calibration
- Chemical feeders - (how to calculate feed rates)
- Jar testing procedures
- Coagulation, flocculation and sedimentation
- Filtration
- CT Calculations
- Stability
- Record keeping and reporting requirements
- Total coliform rule - (correct procedures for bac-t sampling)
- Kansas Regulations
- Operation and maintenance schedules
- Well maintenance
- Pump maintenance
- Distribution system operation and maintenance
- Distribution system maps
- Pressure requirements
- Storage tanks operation and maintenance
- Basic safety (MSDS sheets, chemical safety, confined space, emergency phone number list)
- Emergency Response Plan
- Basic math for water operators

In the meantime, you can expect that KRWA will be on-site within 24 hours to ensure the system is providing good quality water and to help train the new operator - and then to

provide follow up service to the extent that is required. Additional special Operator-in-Training (OIT) sessions may be scheduled by KRWA. Watch for mailings and also check the

KRWA website at www.krwa.net and then under training "calendar."



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Pipeline cleaning project at Bentley yields big improvement

Earlier this year, KRWA Circuit Rider Jon Steele assisted the City of Bentley north of Wichita in pigging a main water distribution pipeline. Due to the nature of the water that Bentley sometimes receives from the City of Wichita well field and given the iron and manganese levels of the water, this was a necessary project. The project went smoothly.

In the photo at far right, operators Eric Purk, Bob Clark and Jack Edgmon and KRWA's Steele work to install a wye in the main line for the ejection point of the pigs. The three photos showing the the colored water were taken during the cleaning process. A 6-inch valve also installed which will allow for future testing of the master meter at the city's booster station or allow water to be shut down if any repairs are needed in the pump house. The 1.5 mile pipeline was overloaded with sludge-like material from dirt and iron and manganese settling. The local joke referred to this as "Bentley crude" as that is what the material looked like on the first run of the pigs. Five runs were made with oversized pigs.

At far right, operator Eric Purk holds the frayed 100 pair cable, unmarked but also no longer used.

The entire project at Bentley took four hours. In the photo at bottom right, Eric Purk and KRWA Circuit Rider Jon Steele work to reconnect the mainline and close the excavation.



Setting up for pigging



Installing a "wye"



Years of iron and manganese



This line was dead!



This is going to make a difference!



Reconnecting, 4 hours later