



KRWA Adds Hands-on Vacuum Lift Station Training Trailer

This photo was taken just after the used lift station was mounted on a new trailer. After it's cleaned up and painted, it will be showing up at various wastewater systems and at training events. It's another investment KRWA has made to provide real "hands-on" experience troubleshooting and repairing lift stations.

Providing training for water and wastewater operators and others is KRWA's mission. And accomplishing that mission requires tools.

As a wastewater tech at KRWA, the one problem that many operators contacted the Association for help with was on the operation and maintenance of lift stations. And so this past winter, KRWA gathered the necessary components and mounted a used lift station donated by a small city in Kansas to develop a new training trailer.

Lift station training trailer

KRWA's "lift station training trailer" will allow operators to get "hands-on" training onsite. This training will include pulling the sewer pump with the ability to remove the impeller and disconnect the shaft seal housing. Once the shaft seal housing is disconnected, operators can learn how to replace the shaft seal. After training on the shaft seal replacement, the operator can re-assemble the seal housing and impeller. Then the operator will be instructed on the proper reinstallation of the pump.

Another training aspect is that the trailer will allow the operator to go through the training step on completing a vacuum pump reed replacement. This is a common problem with vacuum-prime lift stations. There will also be hands-on training on replacing or removing and cleaning the check valve and plug valves.

Next, the training will move to the electrical side of how these stations operate and what to look for in troubleshooting. This will consist of checking the float switches to ensure they are properly opening and closing. Then, we will explain how the float ladder works as far as how each float switch operates and how it controls the water level of the wet well. We will check the Ohms on the electric pump motor to see if there are any electrical problems in the motor. Troubleshooting will also cover motor starters, alternating relays, cube relays, and fuses.

This vacuum prime station is comparable to the equipment that many wastewater systems are using. The great thing about this training trailer is that the training can continue as long as needed without worrying about water backing into the system. Having a lift station available on a training trailer allows as much time as necessary for operators to become confident and comfortable when the local wastewater system's stations need troubleshooting or repairs.

Brian Bowles joined the KRWA staff in November 2021. Brian has 30 years of work experience in a lead or supervisory role in construction, technical and management positions. He most recently was the Public Works Superintendent at the city of Minneapolis, Kan. He is a Wastewater Tech at KRWA.

