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Water Operators

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> THANK YOU
> Thank you for the safe, clear water you delivered to my house this morning. It came at just the right pressure and at the very instant I needed it.
> Sincerely,
> A Water Customer

City water operators never receive letters such as this because they are probably the most unnoticed and unappreciated of all city employees. Few city residents think or care about the people providing water to their homes and businesses; yet no service is more important to a city's welfare than the dependable delivery of safe water.

City water departments protect the health of consumers by providing safe drinking water and offer a high living standard by providing adequate water for fire protection, sanitation, and landscaping. In addition, water professionals are responsibe for the operation and maintenance of the largest investment of many cities--the water treatment and distribution system.

It takes well-trained, dedicated individuals to plan, supply, treat, and distribute city water. The men and women working in Texas municipal water systems are exceptionally well qualified due to two outstanding programs in the state: (1) an operator training program conducted by the Water and Wastewater Division of the Texas Engineering Extension Service and (2) an operator cerification program administered by the Texas Department of Health.

Training

The water and wastewater operator training program in Texas is one of the best--if not *the* best--in the nation. It is also one of the oldest, largest, and best-financed state training program.

The program, headed by Leon Holbert for the past 16 years, is often pointed out as a model program for other states to follow. Holbert like to point out that the Texas program dates back to 1936 while as many as half of the states in the U.S. do not even have state training programs for waterworks operators.

Instructors from the Texas program have helped set up training schools in other states and have developed manuals used throughout the U.S. These instructors have spent at least eight years in the water or wastewater field and have earned the highest certification from the Texas Department of Health. They also must attend college-credit courses in vocational education.

During the 1978-79 fiscal year, 13 instructors taught 357 courses in water and wastewater operation to a total of 7,251 students. Courses, which ranged from basic water treatment to pneumatic and mechanical instrumentation, were conducted in 135 counties in Texas during the year. Each class involved 20 hours of classroom work and was offered either at night or during the day, depending on the needs of the students.

In large cities, courses were taught within plants to employees of a particular system. Smaller cities combined classes or paid travel expenses for their employees to attend classes in other cities. Whenever possible, instructors offered some individual instruction in the plant of each student during the class week.

Holbert explains that cities in the state depend upon his program to provide the trained professionals required by Texas law to operate city water plants. The training program, headquartered on the Texas A&M University campus, also saves Texas cities money. According to a study conducted by the U.S. Environmental Protection Agency and the Texas Department of Water Resources, Texas cities realize a $91 saving in maintenance and repair cost for every dollar invested in training water and wastewater personnel.

Fifty percent of the funding for Holbert's program comes from tuition paid by cities whose employees at tend classes. The remainder is from vocational education funds and legislative appropriations.

The program, which has more than doubled under Holbert's direction, has in recent years expanded with regional offices in San Antonio, Arlington, Houston, and Floydada. Another addition has been the ongoing training program offered to inmates of the Texas Department of Corrections. The newest phase of Holbert's program involves extensive work with Texas cities not in compliance with state or federal standards. A water and wastewater school instructor is working closely with 12 small cities in an effort to bring their personnel and procedures up to compliance levels.

The major purpose of the water and wastewater training program, however, is to prepare students to qualify for one of the four grades of certification designated by the Texas Department of Health.

Certification

There was a time in Texas when the city waterworks superintendent was a political appointee, and the only qualification for the job was to be a friend of the mayor. Today's city water professional, however, is a far cry from those in the past. He--or she--must qualify for certification through a program established by the Texas legislature in the Texas Sanitation and Health Protection Law of 1945. This law requires that all public water systems be operated by certified operators. Three grades--A, B, and C--were authorized in 1945, and a fourth grade--D--was added in 1975 to help small community water systems comply with the requirement of a certified operator.

To be certified, operators must have a certain number of years experience and classroom hours as well as pass a written examination administered by the Texas Department of Health. All examinations offered, according to the Department, "cover fundamental knowledge of the requirements for a public water supply system or sewerage system, interpretation of baceriological analysis, selection of pumps, well or surface supply, sanitary proteciton, distribution, system sanitation and procedures involved in pipe laying and maintenance, and similar matters." Grade B examinations also cover basic engineering functions and computations. Grade A examinations are of a much more difficult nature involving design as well as chemistry and bacteriology.

A Grade A certificate remains valid for a lifetime, while a Grade D certificate is valid for only two years and may not be renewed. For their cerification to remain valid, Grade C operators must received 20 hours of class instruction during a 3-year period and Grade B operators must gain 50 hours of training within 5 years. These class hours may be accrued by attending schools sponsored by the Water and Wastewater Training Division or by the Texas Water Utilities Association. This professional association, made up of 42 district and 8 regional groups, offers training at monthly meetings and special short schools.

Thanks to these training and certification programs, over 10,000 operators hold valid certificates in Texas today; and thanks to these well-qualified operators, Texas public water supplies are among the safest in the world.

AA Certified

Alphonse Kubeczka spends his days at the Brenham Waterworks in a maze of dials, graphs, and gauges. These instruments are not, however, merely numbers and lines to him. He understands their meanings and their importance.

As chief operator of the water treatment plant in Brenham, Kubeczka's responsibility is to transform murky water from Lake Somerville to crystal clear, pleasant tasting, nearly odorless, pH-balanced, unquestionably safe, drinking water. The health of 10,000 Brenham residents depends upon how well he fulfills this responsibility.

Kubeczka knows how. He is one of a handful of AA certified operators who have passed every examination in water and wastewater offered by the Texas Department of Health.

The two A's stand for an A certification in water as well as an A certification in wastewater operation.

This high certification represents completion of many courses offered by the Water and Wastewater Operator Training Program as well as individual training and uncounted hours of homework. Even though the city of Brenham has paid his tuition, expenses, and salary during week-long conferences away from home, the required classes for AA certification have cost Kubeczka many personal dollars and hours.

When he started working at the Brenham Waterworks 10 years ago, Kubeczka had no training or experience in water or wastewater operation. In fact, his education up to that point had not followed traditional patterns. He dropped out of high school when his local school in Chappell Hill, Texas consolidated with Brenham High School 15 miles away. At age 19, he left home for military service and says that those years in the service taught him the necessity of an education. Upon returning home to Brenham, he earned a high school diploma at Blinn Junior College. He also completed correspondence courses in air conditioning and color television repair while working to support his wife and two sons.

As an employee at the Brenham Waterworks, Kubeczka has attended training schools in Waco, Beaumont, College Station, and Brenham. He especially enjoyed the advanced courses taught by Leon Holbert, head of the training program. Holbert works his students very hard during the week-long 40-hour classes, according to Kubeczka, and then Holbert spends additional hours in the classroom each night helping those who need extra tutoring. Kubeczka says he was one who needed extra help, but then admits that he has passed every course and every exam without having to repeat a single one.

Kubeczka has received additional classroom credit by attending monthly meetings of the Brazos-Colorado Water Utilities Association. He has also helped others gain class credit by serving as president and program chairman of this district association.

Through the water and wastewater training program, Kubeczka learned to understand each piece of equipment in the plant. He knows how to operate and maintain the pumps, pipes, settling tanks, storage tanks, measuring devices, lab equipment, and filter system to assure that each operates effectively and efficiently. He also learned how to test water and how to treat it with chemicals. On the job, he tests incoming and outgoing water and adjusts chemical additions to speed the settling process, to kill algae and bacteria, or to remove tastes and odors.

As an AA operator, Kubeczka is qualified for any position in any city water or wastewater department in Texas. He is also qualified--and has been asked--to become an instructor in the water and wastewater training school. Brenham is home, however, and Kubeczka has no plans to leave there.

So why did he go to all the trouble of earning AA certification? He explains that he wanted:

- To be sure the water in Brenham is always as safe as it should be.
- To learn how and why the equipment works the way it does.
- To prove to himself that he could earn the highest certification in his field.
- To be the best operator that he could be.

Citizens of Brenham are fortunate indeed to have such an operator in their water treatment plant.