City of Mesa - Water Resources

WATER METER TECHNICIAN I

JOB DESCRIPTION

Classification Responsibilities: The Water Meter Technician I is a trainee class in which the incumbent learns to perform specialized water meter maintenance including: calibrating, installing, maintaining, repairing, testing, and cleaning commercial and residential water meters. Employees in this class can progress to the Water Meter Technician II class by noncompetitive, criteria-based promotion after successful completion of required coursework, on-the-job training, achievement of successful performance appraisals and completion of Initial City Probation. This class performs related duties as required.

Distinguishing Features: This class is distinguished from other classifications performing meter repair work by its status as a trainee class in which incumbents learn to perform journey-level water meter maintenance and repair work. Incumbents in this class are supervised by the Water Meter Repair and Calibration Supervisor who reviews work through direct observation, conferences, meetings, and results achieved. This class is FLSA nonexempt.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Any combination of training, education, and experience equivalent to good (1 - 3 years) full-time experience assembling and repairing mechanical devices (hydraulic and backflow prevention devices).

Special Requirements. Must obtain a Grade I (or higher) Water Distribution Operator certification from the Arizona Department of Environmental Quality (ADEQ) within one year of hire or promotion date. Must possess a valid Arizona Driver's License by hire date. Must maintain City of Mesa Forklift Operator Certification. Must meet the qualifications to wear a tight fitting respirator by passing a medical evaluation in accordance with Code of Federal Regulations (CFR) 1910.134 by hire or promotion date and must maintain certification.

Substance Abuse Testing. Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug and/or controlled substance testing as outlined in City policy and procedures.

Preferred/Desirable Qualifications. Previous experience in residential and commercial water meter repair and service maintenance is highly preferred. Minimum one year experience in electric arc and/or oxyacetylene welding is preferred.

ESSENTIAL FUNCTIONS

Communication: Schedules accuracy tests and water supply shut-offs with customers. Explains clearly to the customer the purpose of accuracy test, duration, and procedures of the interruption. Answers questions pertaining to water rates, calibration techniques, accuracy tests, and meter function. Explains
the operation and measurement elements of new meter types through in-house classes. Prepares and/or maintains written records on customer contacts, work orders, meter history, vault maintenance, repairs, and test results. Prepares work orders and repair orders.

**Manual/Physical:** Learns to: use various hand tools to perform plumbing and pipefitting tasks in repairing mainline valves, vault lids, and doors of up to three inches and larger water meters; operate compressors, generators, pumps, blowers, jackhammers, tapping machines, etc; operate a one-ton pickup truck with electric hoists requiring a standard Arizona Driver’s License in order to drive to and from job sites and to load and unload meters; test and calibrate 5/8 inch - 2 ½ inch water meters; disassemble meters and valves; install reduced pressure devices, new valves, and backflow preventers; remove and rebuild existing vault meter sets; install 2+ inch copper bypasses; weld, cut, and assemble lids, locking devices, meter supports, and valve supports; clean and repair mainline strainers and shallow vaults; replace worn and rusted hardware on piping; build concrete forms and structures; fabricate, assemble, maintain, and calibrate field testing equipment; perform meter accuracy tests; prepare drawings of meter sets and piping to record type, size, and make of large meter sets; perform physical inventories; and conduct in-test and out-test on meters and calibrate to accepted accuracy range. Measures distances using a tape measure or calipers to record pipe size, chamber thickness, and wear on moving parts. Prepares boxed meter parts to return to the manufacturer. Cleans work and shop areas and tools. Moves or carries heavy (75+ pounds) equipment and materials up to 20 feet or more while testing meters using a cart or other aid to assist. Works in confined spaces, sometimes up to 12 feet deep, under various working conditions such as heat, mud, dust, and standing water. Cleans meters with acid bath, solvents, and sandblaster. Performs physical inventories of meter parts. Prepares meter parts, registers, and chambers for shipping to appropriate meter company. Perceives gear colors. Prior to entering, performs safety inspections of vaults for hazards, including checking toxic and/or explosive gases and low oxygen levels in the confined space using and reading a Personal Hazard Detector atmospheric condition monitor. Works around or uses potentially hazardous materials requiring the use of specialized equipment. Uses a respirator when entering confined spaces. Detects audible backup warning devices and traffic sounds when working near moving equipment and in moving traffic. Meets scheduling and attendance requirements.

**Mental:** Learns to: diagnose problems with commercial water meters and determine the most cost-effective and efficient means of repair; locate water mains on blueprints and quarter-section plat maps; interpret quarter-sections and valve number books; analyze meter and vault details; and estimate costs of retrofitting meter sets. Comprehends and makes inferences from written material. Learns job-related material on testing and repair by on-the-job training and classroom setting. Works with engineering inspectors on new vault and vault meter installation by contractor.

**Knowledge and Abilities:**

Knowledge of:

- computer programs used by the Water Division;
- plumbing and pipefitting procedures;
- the basic principles of hydraulics and mechanics;
- the safety practices and procedures associated with working with water mains and in underground confined spaces;
- the techniques and procedures for repairing residential water meters;
the techniques and procedures for installing Automatic Meter Reading (AMR) devices;  
the techniques and procedures for calibrating and testing commercial water meters;  
water meter repair and calibration procedures and techniques;  
procedures of setup of 24-station shop test bench;  
hand tools and equipment used in the calibration and repair of water meters; and  
City of Mesa water meter vault and meter locations.

Ability to:

work independently under limited supervision;  
maintain shop equipment, and keep work and storage areas clean and organized to minimize safety hazards;  
weld vault lids, frames, and locking devices, and solder pipe;  
establish and maintain effective working relationships with customers, management, and coworkers; and  
effectively express ideas to others, both orally and in writing.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

Revised 4/18  
NF/aa/co  
CS3885.DOCX PAY GRADE: 40  
EEO-SCW IND-7520  
JOB FCTN-TEC SWORN-No  
INCREMENTS 53-100