



Water Quality Technician 1

Category: Classified
Pay Grade: C18
Job Code: 17195

To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.

JOB SUMMARY

Performs specialized field and technical work performing flushing tasks and associated job duties in monitoring, scheduling, and performing water quality related functions connected with the operation of a highly complex urban water distribution system; works on flushing the water distribution system utilizing flushing equipment systems and flushing devices utilizing equipment and technologies that ensure drinking water and surface water discharge in compliance with federal and state regulations; checks and monitors the water quality in the distribution system; reviews reports and implements maintenance schedules for equipment to maintain proper water quality and flushing for an assigned area; reviews and monitors flushing equipment; initiates, prepares, and reviews work orders and administratively tracks work orders covering maintenance, repairs, and improvements; identifies, describes, schedules, and tracks flushing related plans and activities.

ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)

- Makes independent water quality assessments on how to correct distribution system water quality issues through flushing and initiates or performs actions to implement corrections to resolve customer complaints;
- Performs independent evaluations and makes recommendations for installations of Automatic Flushing Devices (AFD), and new blow-offs to maintain water quality;
- Performs problem-solving, assembly, part replacement, and inventory activities related to automatic flushing devices (AFDs);
- Reviews utility distribution system maps to determine water source and flow, proper valves, and adequate flushing locations to conduct specific flushing activities throughout the distribution system;
- Determines the frequency of flushing activity in an area based upon acquired knowledge of a water distribution area and what is needed to maintain compliant water quality parameters;
- Determines the operational status of valves, hydrants, and blow-offs, and has the knowledge and skills necessary to properly document the equipment and the repairs needed so that work orders can be generated for follow up repairs;
- Operates water distribution system infrastructure including valves, hydrants, and blow-offs to utilize various flushing techniques to restore and maintain water quality;
- Operates programmable equipment to control and adjust automatic flushing devices to ensure water quality compliance;
- Maintains and operates monitoring equipment and assures applicable quality control/quality assurance procedures are followed;
- Implements water distribution flushing plan and procedures using automated technologies for mapping, MAXIMO, and other applications;
- Prepares written or electronic reports covering customer complaints and generates service maps of the water distribution system, calculations, maintenance requirements, and water quality characteristics;

- Applies basic water monitoring procedures while utilizing flushing techniques and operating valves, blow-offs, and fire hydrants in connection with distribution system maintenance and other flushing processes;
- Monitors, schedules, tracks, and ensures completion of planned or scheduled preventative/corrective maintenance flushing, projects, and tasks;
- Collects and maintains technical water quality data and evaluates historical trends;
- Generates field data records containing the flushing locations, infrastructure utilized, flow, and water loss;
- Maintains inventory of parts and tools required for repairs;
- Responds to customer complaints and offers answers to routine issues;
- Performs other related job duties as assigned.

QUALIFICATIONS

Education and Experience:

High school graduate and four (4) years of skilled utilities field experience with responsibility for water delivery system, water quality monitoring/flushing, flushing related system inspections, and for writing both corrective action work order requests and flushing maintenance tracking reports; or an Associate's degree with major course work in environmental, physical, natural, or biological science, or related field plus two (2) years of experience as described above; or an equivalent combination of education, training, and/or experience.

Special Qualifications (May be required depending on area of assignment):

- Florida Driver's License or Florida Commercial Driver's License and endorsement, if any.
- Assignment to work a variety of work schedules including compulsory work periods in special, emergency, and/or disaster situations.
- Candidate to obtain and possess a Florida Department of Environmental (FDEP) Class 3 Distribution System Operator License as set forth in Chapter 403, Florida Statutes.
- Candidate to acquire and maintain certification in designated areas according to area of assignment.
- Candidate to terminate employment for failure to achieve and maintain necessary training, education, experience, and required license(s) to perform in designated area of assignment.
- Incumbents may also be subjected to moving mechanical parts, electrical currents, hot equipment (pumps, mufflers, and engines), inclement weather, vibrations, fumes, odors, dust, poor ventilation, low lighting, intense noise and travel.
- Other knowledge, skills, abilities, and credentials required for a specific position.

Knowledge, Skills and Abilities:

- Knowledge of conventional, unidirectional, and alternative pipe cleaning and flushing methods;
- Knowledge of drinking water quality characteristics including odor, color, clarity, and disinfectant levels;
- Knowledge of OSHA regulations and recognized safety operating practices for field monitoring activities and safe workplace;
- Knowledge of the operation and maintenance of utilities lines, pumps, electrical machinery, controls, and water delivery systems;
- Knowledge of the principles, practices, and techniques of water distribution system operations;
- Knowledge of water distribution system hydraulics;
- Ability to apply computer applications to communicate with others, coordinate, track, and document activities as well as prepare customer complaint reports;
- Ability to complete written or electronic field data records;
- Ability to formulate and present ideas and findings clearly and concisely in written, oral, or graphic form;
- Ability to interact tactfully and courteously with the public and other agencies;
- Ability to operate water distribution infrastructure such as valves, fire hydrants, and blow-offs along with the ability to evaluate maintenance requirements;
- Ability to perform flow and water discharge mathematical calculations;
- Ability to perform water quality monitoring utilizing field test equipment;
- Ability to read and interpret blueprints, plats, maps, aerial photos, and diagrams.

PHYSICAL/MENTAL DEMANDS

The work is medium work which requires exerting up to 50 pounds of force occasionally, and/or up to 30 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Additionally, the following physical abilities are required:

- **Balancing:** Maintaining body equilibrium to prevent falling while walking, standing or crouching on narrow, slippery, or erratically moving surfaces. The amount of balancing exceeds that needed for ordinary locomotion and maintenance of body equilibrium.
- **Climbing:** Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs and/or hands and arms. Body agility is emphasized.
- **Crawling:** Moving about on hands and knees or hands and feet.
- **Crouching:** Bending the body downward and forward by bending leg and spine.
- **Feeling:** Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- **Fingering:** Picking, pinching, typing, or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- **Grasping:** Applying pressure to an object with the fingers and palm.
- **Handling:** Picking, holding, or otherwise working, primarily with the whole hand.
- **Kneeling:** Bending legs at knee to come to a rest on knee or knees.
- **Lifting:** Raising objects from a lower to a higher position or moving objects horizontally from position-to-position. Occurs to a considerable degree and requires substantial use of upper extremities and back muscles.
- **Pulling:** Using upper extremities to exert force in order to draw, haul or tug objects in a sustained motion.
- **Pushing:** Using upper extremities to press against something with steady force in order to thrust forward, downward or outward.
- **Reaching:** Extending hand(s) and arm(s) in any direction.
- **Visual ability:** sufficient to effectively operate office equipment including copier, computer, etc.; and to read and write reports, correspondence, instructions, etc.
- **Hearing ability:** sufficient to hold a conversation with other individuals both in person and over a telephone; and to hear recording on transcription device.
- **Speaking ability:** sufficient to communicate effectively with other individuals in person and over a telephone.
- **Mental Acuity:** Ability to make rational decisions through sound logic and deductive processes.
- **Talking:** Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- **Repetitive Motion:** Substantial movements (motions) of the wrist, hands, and/or fingers.
- **Standing:** Particularly for sustained periods of time.
- **Stooping:** Bending body downward and forward by bending spine at the waist. Occurs to a considerable degree and requires full motion of the lower extremities and back muscles.
- **Walking:** Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.

WORKING CONDITIONS

Work is performed in a dynamic environment that requires sensitivity to change and responsiveness to changing goals, priorities, and needs.