

**JOB DESCRIPTION**

**JOB TITLE:** Instrumentation Maintenance Technician, Water Treatment

**DEPARTMENT:** Public Works, Water Treatment

**REPORTS TO:** Supervisor, Water Treatment

**PRINCIPAL PURPOSE OF JOB:**

This is skilled work performing electrical, mechanical and instrumentation maintenance work for the Water Treatment Division of the Public Works department. Work involves a variety of skilled tasks maintaining, installing, adjusting and repairing equipment and systems relating to water treatment, distribution, and pumping facilities. Work may require occasional operation of machinery, but the emphasis is upon servicing, repairing, maintaining and troubleshooting online and bench top analysis equipment. Assignments are received in the form of oral or written instructions which may be accompanied by sketches or blueprints and the incumbent is expected to exercise considerable discretion in determining work methods. Work is evaluated by reports and inspections and by adherence to quality and safety standards. Employees may be required to work evenings, weekends and staggered work shifts; are subject to emergency call-out procedures.

**LEVEL OF AUTHORITY:** Performs routine and non-routine tasks with only general supervision. Operates alone during most shifts, frequently performing work of a high level of skill and judgment while unsupervised, requiring quick and accurate decisions, where incorrect decision or action could result in serious risk of physical harm to operator, costly damage to equipment, health hazard to the public, interruption of service to consumers, or a fine by the Department of Health. Assignments are received in the form of oral or written instructions which may be accompanied by sketches or blueprints and the incumbent is expected to exercise considerable discretion in determining work methods. Work is evaluated by reports and inspections and by adherence to quality and safety standards. May be required to work evenings, weekends and staggered work shifts; are subject to emergency call-out procedures.

**WORK ENVIRONMENT:** Depending on the task being performed, the environment may be a wet, muddy, dark, cold, confined space up to 45 feet below ground, requiring protective gear and special training in basic confined space procedures; a 115,000 volt substation; various areas of the treatment plant and intake station, subject to hot, noisy, wet, or slippery conditions; or, in emergency situations, on the river or river front. Must handle hazardous materials, such as chlorine and concentrated acids, on a regular basis and be subject to fumes from cutting torch. Work may be performed outside in all kinds of

weather conditions. Can be unusually stressful due to need to make quick decisions to avoid equipment damage or dangerous results.

### **ESSENTIAL JOB FUNCTIONS:**

1. Maintains, repairs, installs, troubleshoots and adjusts machinery and equipment of some or all of the following types:
  - Electric motors varying in size including variable speed drive, electric controls and switch gear.
  - Pumps varying from small chemical metering pumps through large capacity water pumps; also screens, level and flow controls, pneumatic, hydraulic and electric control systems.
  - Instrumentation and control systems including calibration, adjustment and repair of telemetry equipment, remote machine controls, chemical feed equipment and machinery, laboratory apparatus, computer based remote terminal units and related devices.
2. Adjust apparatus controls, start and stop pumps, adjust valves, and operate electric switches and valve controls as necessary.
3. As assigned, clean sludge and grit from intake chambers, basins, weirs, baffles, and rotating arms using tools such as high pressure washers, water hoses, and brushes.
4. Perform all routine maintenance on equipment, such as lubrication, oil changes, and belt changes. Perform routine repair work, such as disassembly, repair, and installation of valves, switches, process instrumentation, motors, and related equipment.
5. Perform all work in accordance with local, state, and federal laws, rules, and regulations and in compliance with all departmental safety policies and procedures. This includes using appropriate safety devices and equipment.
6. As requested, serve as plant safety representative. Duties include evaluating safety-related equipment or procedures and making recommendations; maintaining Material Safety Data Sheets (MSDS) and inventories; scheduling and arranging safety training classes, including getting classes certified by Washington Environmental Training and Resource Center (WETRC); and monitoring adherence to departmental safety policies, including making sure one operator is designated the safety leader on each work project.

7. Respond to public inquiries in a courteous manner, provide information within scope of knowledge, and refer to supervisor as appropriate. On occasion, conduct public tours of the plant. Maintain excellent relations with suppliers and vendors, engineers, regulatory agencies, and other people in the industry through oral and written communication.
8. As directed, conduct individual projects, such as projections, proposals, or facility research, along with ongoing operations duties.
9. Perform clerical and administrative duties as necessary.
10. May be required in emergency situations to report to work during unscheduled time.

#### **ADDITIONAL JOB FUNCTIONS**

1. May perform portions of the work of higher classified positions occasionally, as assigned.
2. May perform duties of similar complexity in any City department as required or assigned.

#### **QUALIFICATIONS:**

High school diploma or equivalent and requires successful completion of a vocational training program in an industrial electro/mechanical apprenticeship program OR evidence of journey-level competency in the electrical, mechanical, communications and plumbing trades.

#### **Technical**

1. Considerable knowledge of the methods, materials and techniques commonly used in the maintenance, repair and operation of electro/mechanical and instrumentation equipment and systems associated with industrial process control and water utilities.
2. Knowledge of the standard tools, materials, methods and practices of industrial electrical and mechanical construction, repair and preventive maintenance.
3. Knowledge of wire based or radio communications technologies as applied to instrumentation and control in a utility environment.
4. Knowledge of occupational hazards and necessary safety precautions applicable to mechanical and electrical maintenance and repair.
5. Ability to operate and utilize with skill all tools and equipment associated with the corrective and preventative maintenance activities in an industrial process setting.

6. Ability to establish and maintain effective working relationships with other employees; to treat others with dignity and respect and to work in a team atmosphere.
7. Ability to read and interpret complex engineering plans, schematics, wiring diagrams, work orders, flow charts and technical manuals.
8. Ability to prepare written reports and to communicate technical information clearly and concisely both orally and in writing.
9. Ability and willingness to respond to emergency call-outs, to work staggered shifts and to perform work on weekends and holidays as required.
10. Ability to train and supervise other employees.
11. Must possess a valid Washington State driver's license.

### **Physical Capabilities**

1. Physical strength and ability sufficient to perform heavy manual labor for extended periods under wet, cold, and generally unpleasant conditions. Heavy labor is defined, for example, as frequently exerting force sufficient to lift bags weighing up to 35 pounds from shoulder-high pallet, turn with weight above the waist, and dump contents into waist-high feed bin
2. On occasion may perform very heavy manual labor. Very heavy labor is defined, for example, as working as a three-person team to maneuver approximately 600 pounds onto lifting devices while working in a 45-foot deep well, or as a two-person team to carry baskets weighing 200 pounds for numerous repetitions.
3. Ability to climb up and down 40-foot ladder, or higher, in full safety gear that is bulky and weighs approximately 20 pounds, and descend from ladder onto sloped surface handling fire hose.
4. Physical stamina and agility sufficient to stand, walk, climb stairs, crawl and bend in confined spaces, and engage in similar physical activities for the duration of the shift, as necessary.
5. Capacity for sustained attention to functioning machinery and equipment. Good sensory perception to monitor plant machinery and operations visually, audibly, by smell, and by touch (for temperature and vibration) on an ongoing basis.
6. Ability to monitor communications while doing other work throughout shift.
7. Ability to wear all required safety and protective gear and equipment.

### **Other Capabilities**

1. Basic knowledge and ability to read equipment instruction and maintenance manuals, drawings, schematics, and blueprints.
2. Good working knowledge of math and chemistry and the specific applications of these in the plant and laboratory.
3. Ability to make rapid and sound decisions in the event of extraordinary situations such as equipment malfunctions, rapid deterioration of raw water quality, or power outages, to ensure the quality of finished water and protect public health. Frequently required to exercise this judgment while unsupervised.
4. Ability to give and follow oral and written instructions.
5. Ability to learn to perform a variety of clerical functions, including typing correspondence, making legible and orderly entries in logs and work order reports, and maintaining files.
6. Ability to supervise the work of others occasionally as required.

### **Use of Tools and Equipment**

In addition to computer and all specialized plant equipment, operate forklift and pickup truck. To the extent of ability, use a variety of hand tools, such as saws, drills, wrenches, shovels, etc., and power tools, such as cutting torches, drill and bench presses, grinders, drills, and a variety of saws, including electric, chain, reciprocating, table, and jigsaw. Specialized equipment, such as crack welder and electrical test equipment may be used under close to limited supervision depending on the area where equipment is used and potential risk involved.

### **OTHER**

1. As an absolute condition of employment, employees are required upon hire to sign a drug-free workplace agreement and an agreement not to use tobacco products in any form while on the job.
2. The statements contained in this job description reflect general details as necessary to describe the principal functions of this job, the level of knowledge and skill typically required, and the scope of responsibility. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absences or relief, to equalize peak work periods or otherwise to balance the workload.
3. Following an offer of employment, and prior to starting work, individuals may be required to have a pre-employment physical examination by a physician designated by the

City of Anacortes. The City will pay for the examination. Satisfactory clearance to perform essential job functions will be required for employment.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Are you able to perform the essential functions of this job with or without accommodation?

Yes \_\_\_ No \_\_\_

If testing is required, will accommodation be necessary?

Yes \_\_\_ No \_\_\_

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Signature

Date