

# **SAN BERNARDINO MUNICIPAL WATER DEPARTMENT CLASSIFICATION SPECIFICATION**

**TITLE: WATER RECLAMATION MECHANIC I**

**DATE: 7/1/2020**

**JOB CODE: 21811**

**FLSA STATUS: NON-EXEMPT**

**UNIT REPRESENTATION: GENERAL**

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.*

## **DUTIES SUMMARY**

Under close supervision or direction, perform a wide variety of unskilled and semi-skilled duties related to the inspection, diagnosis, troubleshooting, construction, installation, maintenance, repair and servicing of industrial mechanical equipment and machinery used in the operation of the Water Reclamation Division; Assist higher-level maintenance staff; may be directed to provide guidance and/or training to lesser unskilled or semi-skilled workers; and perform related duties as assigned.

## **DISTINGUISHING CHARACTERISTICS**

The Water Reclamation Mechanic I is the unskilled or semiskilled entry level class in the Water Reclamation Maintenance Mechanical series. Under close supervision, incumbents learn and perform a variety of routine preventive and/or reactive unskilled and semi-skilled duties in the construction, installation, maintenance, repair, and servicing of industrial mechanical equipment and machinery used in the operation of the Water Reclamation Division. The Water Reclamation Division is responsible for maintaining two (2) wastewater treatment facilities (33 MGD and 41 MGD) and fifteen (15) collections system lift stations (12 small and 3 large ranging from minimal to 12 MGD). This class is distinguished from the Water Reclamation Mechanic II by the relative independence with which duties are performed by an incumbent in the latter class.

Employees in this class typically report to the Water Reclamation Maintenance Supervisor.

## **EXAMPLES OF DUTIES**

*The following duties are typical essential duties for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here.*

- Provide courteous and expeditious customer service to the general public and City and Department staff;
- Routinely adhere to and support/promote City and Department goals;

- Adhere to Standard Operating Procedures (SOPs) and all other maintenance directives and policies;
- Perform all work in accordance with established safety policies, procedures, and methods, including OSHA regulations relating to confined space entry and working around dangerous gases; take appropriate precautions to preserve own safety and the safety of others during the course of work;
- Perform unskilled and semi-skilled work to manufacturer's specifications in the inspection, diagnosis, troubleshooting, construction, installation, predictive, preventive, or reactive maintenance, removal, disassembly, reassembly, replacement, realignment repair, and servicing of industrial mechanical equipment, components, facilities, and machinery used in the operation of the Water Reclamation Division; various plant equipment can include small, medium, and large stationary diesel, methane, and natural gas engines and associated equipment, positive displacement blowers, gearheads and lift pumps, centrifugal blowers, bar screens, pumps (piston/plunger, eccentric screw, screw, gear, diaphragm, rotary vane, peristaltic, progressive cavity/positive displacement, centrifugal, vane, turbine, axial flow, and propeller), valves (check, gate, plug, ball, needle), flow gates, compressors, conveyors, belt drying systems, odor scrubbing systems, filter systems, digester gas flare systems, flame arrestor systems, clarifier drives and skimmers, grit classifiers, air dryers; work with pipes, tubes, rods, seals, shafts, stuffing boxes, packing, gears, motors, bearings, couplings, chemical storage and feed systems, motor controllers, transmitter, level controllers, alarm systems;
- Perform mechanical maintenance and repair of de-energized ultraviolet (UV) system components outside electrical and control cabinets as well as inside de-energized air conditioning module, i.e. all work on and around UV racks and lamps as well as mechanical maintenance and repair on air conditioning components;
- Under direct supervision of a qualified mechanic, test and monitor equipment and machinery for vibration, bearing temperature, and output capacity;
- Perform a wide array of related duties associated with housekeeping, cleaning, clearing, relocating/moving, plumbing, masonry, fabrication, painting, repair, and maintenance of plant, field, and shop equipment, components, facilities, and machinery;
- Use a variety of hand and power hand tools;
- Operate equipment (standardized and specialty) and shop tools and may fabricate or assist in the fabrication of parts and equipment; operate lathe, milling machine, and other machine tools in the repair of wastewater plant equipment; operate compressors, jackhammers, portable and stationary generators, mechanical lift devices, steam cleaners, pneumatic, hydraulic and electric tools, and related tools and equipment;
- Where appropriately certified, safely and legally operate trucks (standard, flatbed, dump, boom, etc.), forklifts, backhoes, loaders, tractors, cranes, water trucks, scrapers, and related equipment;
- Clean, oil, and lubricate generators, compressors, pumps, turbines, and other moving equipment; check for malfunctions;
- Where appropriately trained or certified, use gas and or electric equipment to heat, cut, braze, and weld;
- Request or pick up parts and equipment needed for maintenance and repair work;

- Prepare accurate reports and keep a variety of records, including timesheets, daily logs, work orders, safety worksheets, equipment and vehicle usage logs, and other related documents; make oral and written reports for work performed;
- Enter data into computerized maintenance management programs or databases and perform other basic computer- based functions;
- Attend and actively participate in briefings and meetings; participate in Department provided training;
- Plan and lay out work from instructions and/or work orders using sketches, drawings, or verbal instructions;
- Coordinate activities with other sections and Divisions of the Department;
- Ensure the timely and accurate completion of all assigned activities;
- May assist in training or instructing other in the work; may lead the work of others as a project leader;
- When appropriately trained, monitor gas and oxygen levels in confined spaces; enter confined spaces or serve as an observer of a confined space;
- May be required to respond to emergency situations in an on-call status; and
- Perform related duties as assigned.

## **QUALIFICATIONS**

*Any combination of education, training, and experience that would likely provide the knowledge, skills, and abilities to successfully perform in the position is qualifying. A typical combination includes:*

### **Knowledge of:**

- Standard practices, principles, procedures, methods, techniques, tools, materials, and equipment used in the installation, inspection, maintenance, and repair of industrial mechanical equipment, pumps, plumbing and pipe fitting, motors, controllers, drives, lift stations, and machinery common to Water Reclamation or similar industrial facilities;
- Occupational hazards and safety precautions/practices, safe work methods, and safety regulations pertaining to the trade;
- Basic principles of internal combustion engines, pumps, and motors as well as lubricants, coolants, and other fluids used in industrial machinery;
- The Globally Harmonized System (GHS) of Classification and Labeling of Chemicals;
- Basic or applied mathematics applicable to facility and equipment maintenance and repair;
- General computer knowledge/use;
- Relevant state and federal regulations including codes, ordinances, and regulations pertaining to the trade.

**Ability to:**

- Perform all tasks noted in the Example of Duties above;
- Learn the skilled functions of the Water Reclamation Mechanic II classification within two (2) years of appointment;
- Learn and apply new information and skills;
- Perform heavy physical labor for extended periods of time in all weather conditions anticipated within the Department's Service Area and in confined spaces;
- Properly wear personal protective equipment, including protective respiratory equipment to include SCBA and personal escape respirator;
- Analyze and solve problems; identify and implement effective courses of action to complete assigned work;
- Use precision and diagnostic instruments to measure required tolerances of mechanical parts;
- Read and understand Safety Data Sheets (SDS);
- Demonstrate a basic understanding of the wastewater treatment process including chemicals used within one (1) year of appointment;
- Learn and properly adhere to permitted confined space entry and equipment protocols;
- Read and interpret plans, specifications, manuals, data, information, and documents; write at a level that is sufficient for job success; understand and appropriately carry out oral and written instructions; communicate effectively, both orally and in writing; keep accurate records;
- Organize with the ability to prioritize work and exercise independent judgment, wisdom, common sense, and initiative, and work independently in the absence of supervision;
- Establish and maintain effective working relationships with City and Department staff, the public, and others encountered in the course of work; exercise patience, tact, diplomacy, and courtesy in dealing with the public and employees;
- Maintain a driving record which meets Vehicle Code Standards and is acceptable to the Department and its insurance carrier;
- Work various shifts, overtime, on-call at night and on weekends and holidays, and respond to call-out emergencies as required; handle emergency situations as directed;
- Operate a vehicle observing legal and defensive driving practices.

**MINIMUM QUALIFICATIONS**

**Education:** Graduation from high school or equivalent;

**Experience:** At least one (1) year of experience in a mechanical trade or a mechanical apprenticeship program. Experience in the installation, maintenance, and repair of pumping equipment, including valves, pumps, and motors in a wastewater

treatment or collections system environment is highly desirable.

## **NECESSARY SPECIAL REQUIREMENTS**

Possession of a valid Class "C" California driver's license is required at the time of application. For out of state applicants, a valid driver's license is required and a valid Class "C" California driver's license must be obtained within ten (10) days of appointment (CA Vehicle Code 12505c).

Employee may be required to be clean shaven or have trimmed facial hair in order to properly use personal respirators or SCBA equipment. Must pass a respirator medical exam and be physically able to wear SCBA equipment. Must be able to work in enclosed spaces while wearing protective clothing under extreme temperatures and hazardous environments.

There may be additional special requirements depending on assignment.

## **PHYSICAL TASKS AND ENVIRONMENTAL CONDITIONS**

*The physical tasks and environmental conditions below are representative of those necessary to perform the essential functions of this position. Reasonable accommodations for physical and/or mental disabilities may be considered on a case-by-case basis.*

Work is primarily performed in a field environment that is frequently loud and prolonged, in a variety of environmental and extreme weather conditions (both indoors and out), and in or near street traffic with significant exposure to hazardous drivers. Incumbents regularly work near moving mechanical parts, are exposed to wet and/or humid conditions and heavy vibrations and work in precarious places. Incumbents frequently work on slippery or uneven surfaces or work occasionally involves exposure to potential harm, to fumes or airborne particles, sewage (untreated wastewater), communicable disease, toxic, hazardous, or caustic chemical, smoke, or fumes in various states (gaseous, liquid, or solid), and risk of electric shock.

Incumbents require sufficient mobility to work in a field setting in varying weather conditions, to operate hand tools and mechanical and motorized equipment, to transport materials and supplies, and to travel to various locations. Incumbents must regularly lift and/or move up to 50 pounds and frequently over 100 pounds.

Incumbents are regularly required to sit, walk, and stand, talk and hear, use hands to finger, handle, feel, or operate objects, tools, or controls, reach with hands and arms, perform repetitive movements of hands or wrists, climb or balance on ladders or stairs, stoop, kneel, bend at the waist, crouch or crawl, and smell. Incumbents may be required to work from heights on ladders, scaffoldings, motorized platforms, building roofs, or other elevated surfaces. Incumbents must be able to identify and tolerate unpleasant order and environments and take appropriate safety precautions.

Incumbents must be able to see in the normal visual range, with or without correction, with vision sufficient enough to read small print and gauges, to see up close and at a distance, use both eyes, have depth perception, color vision, and the ability to adjust focus. Must be able to hear in the normal audio range with or without correction.

## **CAREER LADDER**

**From:** Water Reclamation Mechanic I

**To:** Water Reclamation Mechanic II  
Water Reclamation Mechanic III

Water Reclamation Lead Mechanic  
Water Reclamation Maintenance Supervisor  
Water Reclamation Maintenance Superintendent

**Job Description:**

BOWC Approved (with budget)  
Rev:

6/23/1998  
3/26/2019  
6/23/2020

**Testing Standards:** App Review/Supp App Review