

SAN BERNARDINO MUNICIPAL WATER DEPARTMENT CLASSIFICATION SPECIFICATION

TITLE: WATER RECLAMATION SENIOR OPERATOR

DATE: 9/24/2019

JOB CODE: 21807

FLSA STATUS: NON-EXEMPT

UNIT REPRESENTATION: GEN

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 general supervision or direction, to operate a variety of processes and equipment utilized in the treatment of wastewater and the disposal of sludge; perform a variety of skilled journey level duties in the monitoring and process operation; collect samples and perform laboratory testing; implement process changes to ensure permit compliance, adjust equipment and ensure biological/chemical balance; assist higher level Operations staff; may be directed to provide guidance and/or training to lesser unskilled, semi-skilled, or skilled workers; and to perform related duties as required.

DISTINGUISHING CHARACTERISTICS

The Water Reclamation Senior Operator is the journey level class in the Water Reclamation Operator series. The incumbent performs a variety of skilled, journey-level plant operation duties and possesses an increased knowledge and application of wastewater treatment methods such as; primary clarification, activated sludge, extended aeration, sludge digestion, and sludge dewatering. The incumbent participates in and may direct a crew in the absence of the lead worker and provides operations guidance and training to less experienced operators. Supervision is received from a Process Control Supervisor, Water Reclamation) RIX Supervisor, and/or Water Reclamation Plant Supervisor. The incumbent may be appointed by the Chief Plant Operator (CPO) as the Designated Operator-in Charge (DOIC), responsible for the overall operation of the wastewater treatment plants. This classification reports to the CPO when appointed DOIC. The Operations Section of the Water Reclamation Division is responsible for operating two (2) wastewater treatment facilities (33 MGD and 41 MGD). Incumbents in the Water Reclamation Senior Operator class are expected to exercise discretion and independent judgment within established guidelines.

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; act as a resource to Water Reclamation (WR) Operators, WR Trainees, and Volunteer Operator-in-Training (OIT) staff.

- Routinely adhere to and support/promote City and Department goals;
- Adhere to, actively promote the use of, and assist in the development of Job Safety Analyses (JSAs), Standard Operating Procedures (SOPs), and all other operational directives and policies; perform all work in accordance with the established safety policies, procedures, and methods, including OSHA regulations relating to confined space entry, working around dangerous gases, and Lockout/Tagout/Blockout; take appropriate precautions to preserve own safety and the safety of others during the course of work;
- Read gauges, meters, charts and graphs, and operate positive displacement and centrifugal pumps, valves, blowers, motors, sludge drying, and related process equipment; perform plant check and operations adjustments required for compliant operations;
- Monitor and troubleshoot wastewater treatment and recycled water facilities operations by utilizing Supervisory Control and Data Acquisition (SCADA) and/or visual inspection and based upon operation and maintenance manuals, knowledge and experience of process operation to regulate plant processes;
- Conduct journey-level visual inspections of wastewater reclamation process equipment according to established procedures to ensure proper function; monitor operations and equipment associated with the following processes: lift stations, preliminary treatment, primary treatment, activated sludge, secondary treatment, extended aeration, sludge thickening, sludge dewatering, anaerobic digestion, gas handling system, recycled water system, and any other processes or equipment utilized at the Water Reclamation Plant or RIX Facility; read, record, and interpret gauges, meters, graphs, and other monitoring and recording devices into operating characteristics and regulating and adjusting equipment; troubleshoot readings outside normal parameters, make manual adjustments or assist in resolving problems and failures; notify appropriate staff of serious issues in accordance with established procedures;
- Monitor chemical usage; forecast chemical consumptions and order chemical shipments; order and monitor the receipt of chemical shipments, monitor delivery/unloading process to ensure proper procedures are followed, and ensure the calculation to determine the quantity being delivered is accurate. Mix and add chemicals; monitor chemical feed systems for proper operation, conduct chemical feed drawdowns to ensure proper dosage rates.
- Check engine driven equipment to ensure proper operation; including checks of vacuum, water level and temperature, oil level and temperature, oil pressure, manifold pressure, bearing temperature, abnormal noise or vibration, and any additional parameters described in the procedures;
- Ensure that samples are collected for process and compliance monitoring; perform basic analysis of samples using laboratory test equipment and record the results appropriately and correctly; analyze data to determine if any adjustments to process are necessary; review laboratory analysis reports; record data in the Water Information Management Solution (WIMS) software and report any discrepancies to the Process Control Supervisor;
- Identify equipment malfunctions, ensure work orders are generated and that all pertinent information is included and advise a supervisor;

- Actively participate and monitor the Plants to ensure overall compliance, including such activities as: operating logs, checklists, exceedance reporting, and testing on all South Coast Air Quality Management District (SCAQMD) permitted equipment is thoroughly completed and accurate;
- Accurately maintain plant records, including operator logs and chemical inventory records, databases, and spreadsheets; prepare regular reports, incident/accident/near-miss/unsafe conditions reports, daily operations reports, call-out tracking, earthquake and power outage reports, and AQMD logs.
- Interpret data and make adjustments to chemical dosage rates through the manipulation of valves and feed control systems as required, in close coordination with the Process Control Supervisor;
- Oil, lubricate, and/or clean motors, pumps, grit collectors, bar screens, filters, and other equipment according to schedules or as required;
- Actively participate and monitor plant operation and maintenance tasks, flush pumps, drain and clean tanks, basins, and similar facilities, maintain buildings and grounds in a clean and orderly manner;
- Use personal computer and application software as applicable to administrative reporting, process control, records management, and SCADA operation;
- May be called upon to guide, train, or direct junior staff in the absence of the WR Lead Operator or Process Control Supervisor;
- May assist in training or instruction given to WR Operators, WR Trainees, and OIT's; may lead the work of others as a project leader;
- Assist in mechanical repairs as required;
- Actively participate and provide guidance in the response and cleanup of sewage spills, solids, sludge, chemical spills, and other related tasks;
- Attend and actively participate in briefings and meetings; participate in Department training;
- Prepare accurate reports and keep a variety of records, including timesheets, daily logs, work orders, safety worksheets, and other related documents; make oral and written reports as required;
- Coordinate activities with other Sections and Divisions of the Department;
- Assure adherence to permit requirements, personnel safety, cleanliness, and fire prevention rules and standards;
- Direct and participate in the performance of routine and non-routine maintenance and operational activities;
- Operate Department vehicles in a safe manner following Departments Safety Standards; 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:

- Local, State, and Federal regulations governing the operation of wastewater treatment plants;
- Principles, methods, procedures, equipment, tools, and processes of a water reclamation facility;
- Sewage treatment and sludge disposal;
- The Globally Harmonized System (GHS) of Classification and Labeling of Chemical;
- Mid-level applied mathematics applicable to Water Reclamation Operations;
- Uses of SCADA control systems and instrumentation, manual control systems, and computer applications related to the work;
- Wastewater process and chemical testing methods;
- Principles, methods, practices, and techniques utilized in chemical and biological analysis and solids digestion;
- Basic hydraulics valves, pumps, and hydraulic systems; and
- Occupational hazards and safety precautions/practices, safe work methods, and safety regulations pertaining to the trade.

Ability to:

- Perform all tasks noted in the Examples of Duties above;
- Learn the skilled functions of the Water Reclamation Lead Operator classification within two (2) years of appointment;
- Demonstrate a complex understanding of the WRP's and RIX's wastewater treatment processes, including chemical usage, within six (6) months of appointment;
- Demonstrate a comprehensive understanding of the WRP's Discharge Permit as issued by the Regional Water Quality Control Board within two (2) months of appointment;
- Learn and apply new information;
- Understand the regulatory requirements for the WR Facilities; including, but not limited to, the State Water Resources Control Board, Santa Ana Region; South Coast Air Quality Management District, and the Environmental Protection Agency;
- 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 as required by Department policies;
- Analyze and solve problems; identify and implement effective courses of action to complete assigned work;
- Learn and properly adhere to permitted confined space entry and equipment protocols;
- Interpret results of wastewater process and chemical testing;
- Operate a variety of pumping, treatment, and process control equipment and machinery;
- Make procedural adjustments resulting from test data;
- Work in confined spaces;
- Operate large cumbersome valves;
- Work in an environment of wastewater treatment;
- Assess from visual inspection the operational condition of wastewater treatment processes;
- Read and interpret plans, specifications, manuals, data, information, and documents; write legibly and at a level sufficient for job success; understand and appropriately carry out oral and written instructions; communicate effectively, both orally and in writing; organize with the ability to prioritize work and exercise independent judgment, wisdom, common sense, and initiative, and work independently in the absence of supervision;
- Make moderately complex arithmetic calculations with speed and accuracy;
- Perform mathematics related to the wastewater reclamation field;
- Operate a vehicle observing legal and defensive driving practices;
- 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;
- Work under moderate stress conditions;
- Perform frequent inspections of all plant equipment and processes to ensure proper operation;
- Work shift work (day-, swing-, and graveyard-) to include working weekends, holidays, overtime, and rotating shifts; unscheduled call-back, and;
- Maintain a driving record which meets Vehicle Code Standards and is acceptable to the Department and its insurance carrier;
- Within six (6) months of appointment, obtain and maintain during the course of employment, the following:

- CPR and first-aid certification
- Forklift certification

MINIMUM QUALIFICATIONS

- Education:** Graduation from high school, or equivalent.
- Experience:** Two (2) years of experience in the operation of a wastewater treatment facility which incorporates preliminary, primary, secondary (activated sludge), anaerobic sludge, dewatering, filtration, and disinfection treatment processes.
- Certificate:** Must possess a valid Wastewater Treatment Plant Operator Grade III Certificate issued by the California State Water Resources Control Board. A copy of the required Wastewater Treatment Plant Operator Grade III certificate must be submitted at the time of application.

NECESSARY SPECIAL REQUIREMENTS

Possession of a valid Class "C" California driver's license. 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. Must pass a respirator medical exam and be able to wear respirator equipment. Must be able to work in enclosed spaces while wearing protective clothing under extreme temperatures and hazardous environments.

PHYSICAL TASKS, MENTAL DEMANDS, AND ENVIRONMENTAL CONDITIONS

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). The Work involves exposure to potential physical harm, infectious disease and hazardous chemicals including smoke, fumes or airborne particles, gas, untreated wastewater, communicable disease, high frequency noise, risk of electric shock, dirt, dust, grease, oil, chemicals, solvents and toxic agents. 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. Incumbents need to be able to tolerate unpleasant odors, wet conditions and uncomfortable climate conditions. There is frequent need to stand, stoop, walk, crawl, climb and perform other similar actions during the course of the workday. Incumbents may be required to work from heights on ladders, scaffoldings, motorized platforms, building roofs, or other elevated surfaces. Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis.

Incumbents require sufficient mobility to work in a field setting in varying weather conditions, to operate various equipment, transport materials and supplies weighing up to 50 pounds and to travel to various locations. Must be able to see in the normal visual range with or without correction with vision sufficient to see color and read small print as well as distance. Must be able to hear in the normal audio range with or without correction. Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis.

While performing the duties of this class, an employee uses written and oral communication skills; reads and interprets data, information and documents; analyzes and solves problems; uses math and mathematical reasoning; observes and interprets people and situations; learns and applies new information and skills; performs highly detailed work; deals with changing deadlines, constant interruptions and multiple concurrent tasks; responds to emergency situations; and interacts with others encountered in the course of work.

CAREER LADDER

From: Water Reclamation Senior Operator

To: Water Reclamation Lead Operator

Job Description:

BOWC Approved (Title chg from WR Ops Tech):
Rev. Appr:

5/4/1999

5/17/2016

9/24/2019

Testing Standards: App Review/Supp App Review