

WATER RESOURCES PLANT OPERATOR LEAD

JOB DESCRIPTION

Classification Responsibilities: A Water Resources Plant Operator Lead is responsible for working in conjunction with all plant operational staff, the Treatment Process Specialist, and the Water Resources Plant Supervisors to direct process treatment activities of the water and wastewater systems and provide advisement and leadership to plant operational staff for the day-to-day operation of the City of Mesa's conventional surface water treatment plant(s) or wastewater reclamation plant(s), as assigned. Duties include: participating in the selection, training, and daily performance evaluation of Plant Operations; providing guidance and assistance to subordinates through coaching, mediation, monitoring, tracking, coordinating, recommending, and conducting managerial oversight and guidance; evaluating maintenance and operations activities; monitoring process performance to determine optimization and compliance; analyzing trends and data; monitoring equipment and processes through all available means to include gauges, meters, and Supervisory Control and Data Acquisition (SCADA) inputs; meeting regularly with Plant Supervisors to follow up on operational goals and tasks required; communicating information to Plant Operators on crews to ensure continuity of communication; addressing equipment maintenance issues by communicating with maintenance supervisor and completing CMMS Service Requests as needed; working with other Lead Operators, operations staff, and the Plant Supervisors to assist in finding coverage for operator shifts; and creating Standard Operating Procedures (SOP) for plant processes or control strategies. An incumbent reviews plant process control operations through inspections of plant systems or operational records and reports, technical data, and graphic charts. Employees will be exposed to job hazards such as toxic chemicals, methane gas, chlorine gas, ozone, hydrogen sulfide, raw sewage, sludge, and adverse weather conditions. This class performs related duties as required.

Distinguishing Features: A Water Resources Plant Operator Lead provides day-to-day shift oversight, leadership, mentorship, and training to other operational staff and serves in a lead capacity for plant operations. An incumbent is expected to demonstrate superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity. The Water Resources Plant Operator Lead receives general supervision from a Water Resources Plant Supervisor, who reviews the employee's work in progress through meetings and by the evaluation of results achieved. This class may work rotating shifts (*by assignment*) and may be required to work at different plant locations. This position assumes responsibility for operations while on assigned shifts, weekends, or holidays; and may be subject to stand-by or emergency call-out and call-back during off-duty hours, at any time, due to staff shortages or emergencies in order to facilitate and sustain the continuity of plant operations. The Water Resources Operator Lead may be designated to act on behalf of the Water Resources Plant Supervisor. 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, or experience equivalent to graduation from high school or GED. A minimum of four (4) years' experience as Water Resources Plant Operator at a water treatment or wastewater treatment plant.

Special Requirements. Must possess a valid Class D Arizona Driver's License by hire or promotion date. Must obtain a 40-hour HazWoper Certification as per the Occupational Safety and Health Administration (OSHA) within one year and must attend an eight (8)-hour refresher course annually to maintain 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.

Potable Water Treatment Plant Assignment: Must possess a Grade IV (or higher) Water Treatment System Operator certification from the Arizona Department of Environmental Quality (ADEQ) or equivalent certification from another state through reciprocity with Arizona by application date. ADEQ Certification through reciprocity must be obtained within three months of hire. Shall be responsible for acquiring a minimum of 30 Professional Development Hours (PDHs) every three years to maintain ADEQ Certification. Must meet the physical standards and requirements for the wearing of Self-Contained Breathing Apparatus (SCBA) respiratory protection equipment by hire or promotion date.

Water Reclamation Plant Assignment: Must possess a Grade IV (or higher) Wastewater Treatment System Operator certification from the ADEQ or equivalent certification from another state through reciprocity with Arizona by application date. Certification through reciprocity must be obtained within three months of hire. Shall be responsible for acquiring a minimum of 30 Professional Development Hours (PDHs) every three years to maintain ADEQ 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.

ESSENTIAL FUNCTIONS

One position may not include all of the essential functions, knowledge, and abilities listed, nor do the listed examples include all the knowledge and abilities which may be found in positions of this classification.

Communication: Communicates with other City employees in order to relay information on plant operation and maintenance. Maintains written shift logs and records on test results, flow rates, meter readings, water/effluent quality, and other operational parameters. Checks and evaluates daily compliance/odor control logs for erroneous data, maintains orderly written data on test results, flow rates, and gauge and meter readings. Coordinates chemical or effluent deliveries with other staff or external agencies. Responds to and informs supervisors, coworkers, and lower-level operators of present and potential problems and hazards. Meets with other lead operators weekly to work out job task assignments and discuss current operational issues. May provide plant tours to the public or schools on occasion.

Manual/Physical: Requires a standard Class D Arizona Driver's License to operate a City-owned vehicle to deliver and collect supplies, parts, and other materials for various City facilities. Conducts process control of a nitrification/denitrification plant. Oversees the collection of laboratory samples at plant site(s) and testing procedures to assure precision and accuracy. Operates laboratory equipment to perform respective analysis and distinguish colors to determine outcome of certain analysis. Enters data into a computer workstation in order to calculate chemical usage. Uses an automated computerized maintenance management system in order to schedule, predict, and document plant maintenance

activities. Operates powered industrial trucks, which may include forklifts. Uses a variety of standard testing procedures to determine problems and any adjustments needed in the treatment process, and operates laboratory equipment to perform analyses. Additionally, the position will be required to operate “powered industrial trucks,” which may include forklifts, front-end loaders, etc. This will require training certification requirements per OSHA requirement 29 CFR 1910.178 on a three-year basis. Uses common hand tools such as: hammers, screwdrivers, wrenches, and pliers to operate equipment, calibrate on-line process monitors, and perform maintenance tasks. Cleans work area, pumps, tanks, SCBA equipment, operations lab, and equipment. Works with hazardous materials including toxic chemicals and chlorine gas using normal and/or specialized protective equipment. Lifts and carries heavy (up to 100 pounds or more) equipment, drums, and chemicals for distances of 20 feet or more with the assistance of a hand cart or power equipment. Works in all weather conditions. Moves objects such as chlorine containers and chemical drums (450-600 pounds) using a hoist to mix and/or replace. Works with cleaning solutions, painting plant structures, and equipment using normal protective equipment. May perform yard work, sweep plant areas, and perform general housekeeping duties. Works at heights of up to 150 feet and depths of 50 feet. Makes rounds of the plant and inspects buildings, grounds, pump stations, and equipment for conformance to safety standards, security requirements, and operating parameters to deliver material and complete other job assignments. Works in confined areas that may contain toxic gases or that are low in oxygen while performing maintenance on equipment. Monitors SCADA displays, gauges, and meters to ensure proper plant operation. Meets scheduling and attendance requirements. Has overall responsibility for the assigned shift.

Potable Water Treatment Plant Assignment: Job hazards may include frequent exposure to bleach, caustic, rotating equipment, noise, low oxygen, and explosive atmospheres. Monitors plant equipment and process operations including mixing, flocculation, settling, filtration, and solids handling. Checks chemical tank levels. Operates valves, gates, pumps, and remote-control devices. Operates pilot plant systems to evaluate and improve water treatment plant effectiveness. Works closely with the Plant Supervisors to produce both internal and external reports. Generates trends, compiles spreadsheets, and enters data into a computer workstation in order to provide daily summary of plant processes, flows, chemical usage, electrical usage, and water quality. Provides leadership of asset management system, policies, and other areas of responsibility as assigned.

Water Reclamation Plant Assignment: Job hazards may include frequent exposure to bleach, caustic, rotating equipment, biogas, noise, low oxygen, Hydrogen Sulfide, and explosive atmospheres. Monitors plant equipment and process operations including bio-reactors/activated sludge basins, solids handling, anaerobic digestion, disinfection, filtration, biogas, and odor control. Checks chemical tank levels. Operates valves, gates, pumps, and remote-control devices. Operates pilot plant systems to evaluate and improve wastewater treatment plant effectiveness. Works closely with the Operations Supervisors to produce both internal and external reports. Generates trends, compiles spreadsheets, and enters data into a computer workstation in order to provide daily summary of plant processes, flows, chemical usage, electrical usage, and effluent quality. Provides leadership of asset management system, policies, and other areas of responsibility as assigned.

Mental: Prepares plant standard operating procedures and job hazard analysis as required. Analyzes chemical data to make recommendations regarding appropriate chemical dosages. Plans or organizes daily workload and coordinates daily plant operation during assigned shift. Performs mathematical calculations to compute chemical usage, chemical feed calculations, and/or biological process calculations. Comprehend written material from shift reports and daily reports to evaluate efficiency of

electrical usage, chemical feeds, and/or biological processes. Learns job-related material through operator training and state certification programs. Participates in facility safety and training sessions. Works with SCADA systems to monitor plant, interpret trends, and control valves and pumps. Utilizes limited purchase orders (LPOs) for plant purchases. Ability to quickly analyze safety hazards and to direct the operations of a team in a potentially dangerous situation.

Potable Water Treatment Plant Assignment: Evaluates water treatment plant effectiveness and makes adjustments in the water treatment processes as needed. Coordinates work activities such as filter backwashing and high service pump activities with water supply and the Utility Control Center. Performs jar tests and other related analysis in order to achieve maximum plant efficiency. Resolves operational related problems such as change in turbidity and process problems by making necessary feed and/or equipment changes. Works closely with the Plant (Maintenance) Supervisors to coordinate equipment maintenance and repairs.

Water Reclamation Plant Assignment: Reads and comprehends manufacturers' Operation and Maintenance manuals and follows manufacturers' instructions. Calculates flow rates and calibrates feeder systems and various analyzers. Comprehends and makes inferences from safety material, plant operations and maintenance manual, and lab procedures to operate and maintain plant. Oversee completion of CMMS work orders assigned to crew. Works with SCADA system to monitor plant, interpret trends, and control valves and pumps. Sets up chemical orders with vendors. Evaluates wastewater treatment plant effectiveness and makes process control adjustments to both the liquids and solids operations. Coordinates work activities with Wastewater Collections such as routine tank cleaning. Works closely with the Plant (Maintenance) Supervisors to coordinate equipment maintenance and repairs. Other job duties as required.

Knowledge/Skill/Abilities:

Knowledge of:

Potable Water Treatment Plant Assignment:

SCADA systems and Computer Maintenance Management Software (CMMS);
the equipment used in a modern, conventional surface water treatment plant;
the chemical and physical processes used to treat potable water, (example: coagulation, flocculation, sedimentation, filtration, chlorination, and solids handling;
the practices and principles of complex tasks and duties involved in water treatment;
the basic maintenance needs of water treatment equipment;
federal, state, and local guidelines and regulations specific to the operation of a water treatment plant;
occupational hazards and safety procedures associated with lock-out tag-out, confined space entry, mechanical maintenance, welding, bleach, and caustic; and
standard water treatment operating procedures.

Water Reclamation Plant Assignment:

SCADA systems and Computer Maintenance Management Software (CMMS);
the equipment used in a modern, wastewater treatment plant;
the practices and principles of complex tasks and duties involved in water reclamation;
the operation and maintenance procedures of City water reclamation equipment and facilities;
the operations of digesters and solids handling equipment;
the properties of chemical compounds and laboratory procedures used in water reclamation processes;

the operational and safety regulations pertaining to water reclamation;
the standard principles of hydraulics, plumbing, metal cutting, and welding; and
the standard principles of biology, chemistry, and mathematics.

Skills in:

the care and operation of a variety of construction equipment including: a front-end loader, backhoe, dump truck, boom truck, etc.
the chemical and physical processes used to treat wastewater;
the principles of bio-reactor and anaerobic digestion;
the basic maintenance needs of wastewater treatment equipment;
the equipment used in the processing of bio-gas;
the equipment and processes utilized in solids handling, digesters, centrifuges, polymer systems;
federal, state, and local guidelines and regulations specific to the operation of a wastewater treatment plant; and
standard wastewater treatment operating procedures.

Ability to:

determine processing and treatment requirements;
collecting and analyzing samples at stages of processing to determine the effectiveness of the treatment process and any adjustments that are necessary;
utilize specialized equipment, chemical feeders, various types of pumps, electronic equipment, electric hoists, and laboratory equipment;
utilize computer workstations for data entry, data interpretation, SCADA operation, and on-line calibration monitoring equipment;
wear a respirator and/or SCBA;
independently make well thought out decisions and act in the best interest of the City;
identify problems and provide solutions in order to ensure proper and efficient operation of the treatment plant;
instruct others in a classroom setting;
work alone on shifts as required; and
establish and maintain effective working relationships with management, coworkers, and the general public.

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.

New 9/25

TR/js/ah

CS5321.DOCX

EEO-SCW

JOB FCTN-TEC

Non-DOT Safety and Security-Y

CDL-N

RESP-Y

PAY GRADE: 53

IND-7520 – Water Treatment

IND-7580 – Water Reclamation

SWORN-N

Non-DOT Random-N

DOT-N

INCREMENTS 074-200