WATER RESOURCES PLANT MAINTENANCE SPECIALIST II

JOB DESCRIPTION

Classification Responsibilities: The Water Resources Plant Maintenance Specialist II is responsible for performing specialized, journey-level work that involves installing, maintaining, and repairing water treatment or water reclamation equipment ***(depending on assignment)***. An employee in this class accompanies and observes a lead person, the Water Resources Plant Maintenance Specialist III, performing daily activities and assisting in performing treatment plant maintenance activities. Assigned tasks increase in scope and difficulty as the incumbent demonstrates the ability to perform the full-range of duties respective of the journey-level Water Resources Plant Maintenance Specialist II class.

Potable Water Plant Assignment: Incumbents may be assigned to the Brown Road or Signal Butte Water Treatment Plants. Some examples of duties required and performed include: pouring and finishing concrete; laying conduit and pulling wire for electrical needs; performing plumbing work including cutting, threading, and welding pipe; installing and replacing pumps, compressors, motors, and related equipment; lubricating bearings; replacing seals, gaskets, packing springs, and gears; and installing, maintaining, and repairing flocculator drive units, chlorine equipment, valves, gear boxes, pumps, compressors, pipes, tanks, rapid mixers, carbon feeders, and swing arms, etc. Although the primary responsibilities of this position are maintenance related, the Water Resources Plant Maintenance Specialist II may also be responsible for performing operational duties at the water treatment plant under the supervision of the Water Resources Plant Supervisor. Duties include analyzing trends and data, monitoring equipment, optimizing plant processes, collecting and analyzing process samples, and making data entry. This class performs related duties as required.

Water Reclamation Plant Assignment: Incumbents may be assigned to the Southeast, Northwest, or Greenfield Wastewater Treatment Plants. Some examples of duties required and performed include: installing, maintaining, and repairing bar screens, compactors, degritters, mixers, blowers, odor control devices, centrifuges, conveyor systems, ultraviolet (UV) equipment, chemical metering pumps, filtration equipment, sludge hoppers, boilers, biogas systems, and waste gas flares. Although the primary responsibilities of this position are maintenance related, the Water Resources Plant Maintenance Specialist II may also be responsible for performing operational duties at the reclamation plant under the supervision of the Water Resources Plant Supervisor. Duties include analyzing trends and data, monitoring equipment, optimizing plant processes, collecting and analyzing process samples, and making data entry. This class performs related duties as required.

Distinguishing Features: The Water Resources Plant Maintenance Specialist II class is distinguished from the Water Resources Plant Maintenance Specialist III class by the former class having responsibility for performing journey-level water treatment or water reclamation maintenance duties, but not having lead responsibilities. This class is provided lead direction by the Water Resources Plant Maintenance Specialist III with supervisory responsibility provided by the Water Resources Plant Supervisor. Job performance is monitored and evaluated by the on-site observation of work in progress, finished projects, and meetings to discuss strategy and other challenges while performing routine duties. Job hazards may include frequent exposure to a variety of weather conditions, chlorine gas, fluoride, ferrous chloride, raw sewage, toxic chemicals, bleach, caustic, rotating equipment, biogas, noise, low

oxygen, explosive environments and high-voltage lines, and equipment. An employee in this class is required to use appropriate safety equipment and follow safety procedures in performing assignments. This class may be subject to emergency call-out and must be willing to work overtime and scheduled stand-by as required. Employees may progress to this class by noncompetitive promotion upon meeting the required coursework, on-the-job training, acquisition of required certification, and achievement of satisfactory performance appraisals. 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 education, training, and experience equivalent to graduation from high school or GED. Considerable (3 - 5 years) work experience in performing journey-level repair or maintenance of pumps, water treatment or wastewater equipment, or other mechanical or manufacturing equipment maintenance.

Special Requirements. Must obtain forklift operator certification within six months of hire. Must possess a valid Class D Arizona Driver's License by hire date. 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 and must maintain certification. This class shall be responsible for acquiring a minimum of 30 professional development hours (PDHs) every three years to maintain their Arizona Department of Environmental Quality (ADEQ) certification. The incumbent must also obtain a 40-hour HazWoper Certification as per the Occupational Safety and Health Act (OSHA) and must attend an eight-hour HazWoper refresher course annually to maintain certification.

Potable Water Treatment Plant Assignment: Must obtain a Grade I (or higher) Water Treatment System Operator certification from the ADEQ within one year of hire or promotion date. Must meet the physical standards and requirements for the wearing of an Air Purifying Respirator (APR) and a Self-Contained Breathing Apparatus (SCBA) respiratory protection equipment.

Water Reclamation Plant Assignment: Must obtain a Grade I (or higher) Wastewater Treatment System Operator certification from the ADEQ within one year of hire or promotion date. Certification through reciprocity must be obtained within three months of hire or promotion.

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.

Preferred/Desirable Qualification. Experience operating and maintaining treatment plant equipment in a similar environment is highly desirable. ***(Potable Water Treatment Plant Assignment)***

ESSENTIAL FUNCTIONS

Communication: Communicates verbally and in writing with City employees, management, and the public in order to provide information on either water reclamation or water treatment plant operations depending on assignment. Provides information to contractors and vendors to ensure that maintenance and repairs are performed correctly. Maintains safety logs and reports for tracking purposes. Provides safety logs and reports to Safety Services.

Manual/Physical: Operates a City vehicle requiring a standard Class D Arizona Driver's License in order to drive to and from job sites at the plant. Wears a respirator in order to comply with safety standards when working in confined spaces and/or around toxic chemicals. Paints various pieces of equipment, stairways, shelves, cabinets, etc., using epoxy, enamel, and latex paints. Pushes, pulls, carries, and lifts objects weighing up to 100 pounds with the assistance of a handcart or power equipment. Follows construction plans and blueprints. Operates a variety of construction equipment and vehicles including a boom truck, backhoe, dump truck, electric hoist, trencher, forklift, cement mixer, welder, cutting torch, oxyacetylene welding torch, welding machine, hot air gun, pipe threader, water main tamper, paint sprayer, hand tools, and other related tools in order to complete maintenance and repair duties. Lays conduit and pulls wire for electrical needs. Applies welding and metal fabricating techniques and procedures to the maintenance and repair of equipment, the installation of sight gauges on tanks, and to construct safety guards, supports, kick plates, platforms, shelving, cabinets, worktables, etc. Performs pipefitting and plumbing by cutting, threading, and welding pipe. Installs, maintains, repairs, and replaces pumps, compressors, motors, and related equipment. Meets scheduling and attendance requirements. Performs preventive maintenance tasks, such as changing oil, lubricating bearings, replacing oil seals, gaskets, springs, gears, and related maintenance work. Mixes and pours concrete for pump bases and pipe support. Performs plaster wall surfacing duties. Meets scheduling and attendance requirements.

Potable Water Treatment Plant Assignment: Works at heights of up to 150 feet and depths of 50 feet. Installs, maintains, and/or replaces fluoride pumps at reservoir sites. Changes chlorine bottles at automatic chlorinator sites, or one-ton chlorine. Reads meters in order to report usage for billing. Installs, maintains, and repairs water valves. Conducts laboratory tests and monitors plant function through the use of monitoring equipment to make the necessary process control adjustments. Works with chemicals used in both operations and maintenance of the plant. Makes rounds of the plant and inspects buildings, equipment, and grounds for conformance to safety standards, security requirements, and operating parameters.

Water Reclamation Plant Assignment: Works at heights of up to 150 feet and depths of 50 feet. Job hazards may include frequent exposure to bleach, caustic, rotating equipment, biogas, noise, low oxygen, and explosive atmospheres.

Mental: Learns plant maintenance operation and new repair techniques through on-the-job training. Learns new techniques for installing and maintaining plant equipment through classroom training and on-the-job training. Monitors inventory and notifies supervisor as supplies and parts are needed.

Knowledge/Skills/Abilities:

Knowledge of:

oxyacetylene welding techniques and procedures;
stainless steel, aluminum, and PVC welding and metal fabricating techniques and procedures;
American Welding Society (AWS) and American Society of Mechanical Engineers (ASME) codes and requirements;
installation, maintenance, and repair procedures for pumps, valves, rapid mixers, drive units, chlorinators, centrifuges, boilers, digesters, UV equipment, and other equipment associated with a water treatment or water reclamation plant;
pipefitting techniques and procedures;
methods, practices, and materials used in the mechanical trades;
occupational hazards and safety procedures associated with confined space entry, mechanical maintenance, welding, fluoride, methane gas, hydrogen sulfide, ferrous chloride, and chlorine gas;
water and wastewater flow meters;
plumbing methods, practices, and materials;
basic methods and practices used in the electrical trades;
carpentry and painting techniques and practices;
concrete repair;
personal computers and related software, and plant Supervisory Control and Data Acquisition (SCADA); Computer Maintenance Management Software (CMMS);
the practices and principles of complex tasks and duties involved in water and wastewater treatment; and bleach and UV disinfection, anaerobic digesters, and the standard principles of biology, chemistry, and mathematics.

Skills in:

the use and care of an oxyacetylene welding torch, a welding machine, hot air gun, propane torch, drill press, band saw, metal grinder, paint sprayer, and other equipment necessary to perform assigned tasks;
the use of precision measuring equipment, including micrometers, dial indicators and strain gauges;
the use and care of hand tools necessary to perform various mechanical installation, maintenance, repair tasks; and
the use and care of non-sparking tools for explosive environments.

Ability to:

use a respirator or SCBA;
follow oral and written instructions;
learn to operate a variety of equipment, including an overhead crane, forklift, and boom truck;
establish and maintain effective working relationships with coworkers and supervisors; and
perform housekeeping duties by keeping the plant area, shop, and laboratory clean and neat.

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.

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