

## WATER RESOURCES PLANT MAINTENANCE SPECIALIST I

### JOB DESCRIPTION

**Classification Responsibilities:** A Water Resources Plant Maintenance Specialist I is a one-year assignment where incumbents function as a trainee and are responsible for learning how to and begin to maintain the City of Mesa's water reclamation or water treatment plants (*depending on assignment*). An employee in this class accompanies and observes a lead person, specifically the Water Resources Plant Maintenance Specialist II and/or III class, thus performing daily activities and assisting in performing entry-level work. As the incumbent demonstrates the ability to perform the full range of the proposed Water Resources Plant Maintenance Specialist I duties, the complexity and difficulty of assignments will increase. During this one-year assignment the incumbent must meet requirements and expectations outlined in the criteria-based promotion document. In addition, the incumbent must complete these requirements and proceed to the Water Resources Plant Maintenance Specialist II classification within the one-year time frame. This class performs related duties as required.

**Potable Water Treatment Plant Assignment:** Incumbents may be assigned to either the Brown Road or Signal Butte Water Treatment Plants. Entry-level work will consist of plant maintenance work. Some examples of duties learned and performed include: installing, maintaining, and repairing equipment and facilities, including but not limited to: pumps, compressors, pipes, rapid mixers, flocculator drive units, carbon feeders, chlorine equipment, valves, gear boxes, tanks, and swing arms, etc. These duties may vary depending on the plant assignment. Incumbents also learn the basis of plant operations involving coagulation, sedimentation, filtration, disinfection, and sludge dewatering.

**Water Reclamation Plant Assignment:** Incumbents may be assigned to either the Southeast, Northwest, or Greenfield Water Reclamation Plants. Entry-level work will consist of plant maintenance work. Some examples of duties learned and performed include: installing, maintaining, and repairing equipment and facilities including, but not limited to: bar screens, compactors, degritters, mixers, pumps, compressors, pipes, blowers, odor control devices, centrifuges, ultraviolet (UV) equipment, chemical metering pumps, sludge hoppers, conveyor systems, boilers, biogas systems, waste gas flares, valves, gear boxes, and tanks. Incumbents also learn the basics of plant operations involving primary treatment, secondary treatment, activated sludge processes, filtration, disinfection, sludge dewatering, and digestion.

**Distinguishing Features:** This class is distinguished from the Water Resources Plant Maintenance Specialist II class by its responsibility for performing entry-level plant maintenance duties while learning to perform journey-level plant maintenance. This class is provided guidance by either the Water Resources Plant Maintenance Specialist II, Water Resources Plant Maintenance Specialist III, or Water Resources Plant Supervisor. On-site observation of work in progress, finished projects, and meetings to discuss strategy and other challenges while performing routine duties. An employee in this class is required to use appropriate safety equipment and follow safety procedures in performing assignments. Job hazards may include a variety of weather conditions, ferrous chloride, raw sewage, toxic chemicals, high-voltage lines, and confined spaces. This class may be subject to emergency call-out, stand-by and must be willing to work overtime as required. Employees in this class may progress to the Water Resources Plant Maintenance Specialist II class by noncompetitive, criteria-based promotion after successful completion of required coursework, on-the-job training, 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 training, education, and experience equivalent to graduation from high school or GED. One year of experience performing water or wastewater plant equipment maintenance, water supply system equipment maintenance, and mechanical and/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. The incumbent must also obtain a 40-hour HazWoper Certification as per the Occupational Safety and Health Administration (OSHA) and must attend an eight-hour HazWoper refresher course annually to maintain certification.

***Potable Water Treatment Plant Assignment:*** 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.

**Substance Abuse Testing.** Due to safety/security sensitive nature of this classification, individuals shall be subject to pre-employment/pre-placement and random alcohol, drug and/or controlled substance testing as outlined in City policy and procedures.

**Preferred/Desirable Qualifications.** Grade I (or higher) Water Treatment System Operator or Wastewater 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. Minimum six months of successful performance in the City of Mesa Water Resources Department Intern program, and familiarity with City of Mesa treatment facilities.

## ESSENTIAL FUNCTIONS

**Communication:** Provides information to contractors and vendors to ensure that maintenance and repairs are performed correctly. Communicates verbally and in writing with City employees, management, and the public in order to provide information on plant maintenance. Maintains safety logs and reports for tracking purposes and provides this information to Safety Services.

**Manual/Physical:** Incumbents operate a City vehicle requiring a standard Class D Arizona Driver's License in order to drive to and from job sites at the plant and pick up parts and equipment. 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 essential lifting equipment (example: cart, power winches, rigging equipment, etc.). Follows construction plans and blueprints. Learns to operate a variety of construction equipment and vehicles including an electric hoist, forklift, cement mixer, welder, cutting torch, oxyacetylene welding torch, welding machine, hot air gun, pipe threader, 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. Learns to perform preventive maintenance tasks such as changing oil; lubricating bearings; replacing oil seals, gaskets, springs, and gears; and related maintenance work. Mixes and pours concrete for pump bases and pipe support. Performs plaster wall surfacing duties; and installs, maintains, and repairs water valves. Meets scheduling and attendance requirements.

**Potable Water Treatment Plant Assignment:** Works at heights of up to 150 feet and depths of 50 feet. Learns to install, maintain, and/or replace fluoride pumps at reservoir sites. Changes chlorine bottles at automatic chlorinator sites. Reads meters in order to report usage for billing. Assists with the change of one-ton chlorine containers and associated equipment. Job hazards may include frequent exposure to chlorine gas, fluoride, noise, and equipment.

**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:** Monitors inventory and notifies supervisor as supplies and parts are needed. Learns maintenance operation and new repair techniques through on-the-job training. Reads and interprets plat maps, drawings, and specifications. Learns new techniques for installing and maintaining plant equipment through classroom training and on-the-job training.

**Knowledge/Skills/Abilities:**

Knowledge of:

oxyacetylene welding techniques and procedures;  
stainless steel, aluminum, and polyvinyl chloride (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, and other equipment associated with a water treatment plant or water reclamation plant;  
centrifuges, boilers, UV equipment;  
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; and  
personal computers, related software, and Computer Maintenance Management Software (CMMS).

Skill 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; and the use and care of hand tools necessary to perform various mechanical installation, maintenance, and repair tasks.

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; and  
establish and maintain effective working relationships with coworkers and supervisors.

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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EEO-SCW

JOB FCTN-TEC

INCREMENTS 59-200

PAY GRADE: 43

IND-7520

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