



**APPROVED BY: THE CHIEF
OPERATING OFFICER**

EFFECTIVE: September 2021

PLANT/PIPELINE MECHANICAL TECHNICIAN I/II

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.

DEFINITION

To perform maintenance and repair functions on industrial equipment used in water treatment, recycled water, water purification plants, pumping stations, and hydroelectric plants including related mechanical equipment components used for water treatment, storage, distribution, and flood control; to perform maintenance and repair duties on water conduits and equipment; and to perform a variety of tasks relative to assigned areas of responsibility.

DISTINGUISHING CHARACTERISTICS

Plant/Pipeline Mechanical Technician I

This is the entry level class in the Plant/Pipeline Mechanical Technician series. Employees have only limited or no directly related work experience. This class is distinguished from the Plant/Pipeline Mechanical Technician II by performing the more routine tasks and duties assigned to positions within the series under immediate supervision while learning to perform the full range of responsibilities as assigned. Advancement to the "II" level is based on demonstrated proficiency in performing the assigned functions, and is at management's discretion.

Plant/Pipeline Mechanical Technician II

This is the journey level class within the Plant/Pipeline Mechanical Technician series. Employees within this class are distinguished from the Plant/Pipeline Mechanical Technician I by the performance of the full range of duties as assigned including serving as technical lead in the absence of the Senior Plant/Pipeline Maintenance Mechanic. The Plant/Pipeline Mechanical Technician II receives only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Positions in

this class are flexibly staffed and are normally filled by advancement from the "I" level, or when filled from the outside, have prior experience.

SUPERVISION RECEIVED AND EXERCISED

Plant/Pipeline Mechanical Technician I

Receives immediate supervision. Employees within this class work in the presence of their supervisor or in a situation of close control and easy reference. Work assignments are given with explicit instructions or are so routine that few, if any, deviations from established practices are made without checking with the supervisor.

Plant/Pipeline Mechanical Technician II

Receives general supervision. The assigned duties for employees within this class require the exercise of judgment or choice among possible actions, sometimes without clear precedents and with concern for the consequences of the action. Employees may or may not work in proximity to their supervisor.

TYPICAL DUTIES

The duties specified below are representative of the nature and level of duties assigned to this class and are not intended to be an inclusive list. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position. Management reserves the right to add, modify, change, or rescind the work assignments of different positions.

1. Perform preventive and corrective maintenance on domestic treated water, recycled water purification, pipeline systems; maintain water conduits and equipment including vacuum breakers, air releases, and water valves; perform confined space related duties.
2. Read and interpret mechanical drawings, plans and specifications; estimate labor and materials for proposed work, perform work in accordance with these documents; make preliminary sketches of work to be performed or completed; locate, examine, clarify, identify, record and mark locations of creeks, pipelines, telemetry, test cables, and underground cables.
3. Diagnose mechanical problems; recommend preventative or corrective repair; make estimates of labor, materials, and supplies required to complete assigned work; request required materials.
4. Inspect and repair ozone generator and other related equipment at ozone fitted treatment system plants.

5. Diagnose and repair meter pumps, calibration, flocculation, and filtration methods through vibration analysis and temperature readings and other inspection techniques; confer with operations and engineering staff to solve problems and determine needs.
6. Install and maintain backflow prevention devices; use welding equipment, lathes, and other shop equipment to fabricate and repair parts.
7. Operate a variety of hand tools and power equipment including welding equipment, lathes, drill presses, sanders, trucks, forklifts, boom lift, scissor lifts, and overhead cranes.
8. Maintain records of work performed; enter and retrieve data from a Computerized Maintenance Management system (CMMS); ensure proper completion of reports including confined entry documentation.
9. Perform aerial inspections of all facilities to identify potential underground leaks, encroachments or other potential hazards.
10. Determine and apply traffic control in accordance with permit rules and requirements.
11. Communicate with other public and private agencies on mechanical related subjects.
12. Ensure adherence to safe and clean work practices and procedures.
13. Recommend preventive maintenance procedures and schedules.
14. Employees have a responsibility for safety; for following safety regulations and safety policies and procedures applicable to their work.
15. Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisors or by law.
16. Perform related duties and responsibilities as required.

QUALIFICATIONS

The level and scope of the knowledge, skills and abilities listed in this section are related to the job duties as defined under Distinguishing Characteristics.

Plant/Pipeline Mechanical Technician I

Some Knowledge of:

Operations, services, and activities of a mechanical maintenance program.
Operational characteristics of mechanical maintenance equipment and tools.
Operational methods and techniques associated with water treatment process.

Occupational hazards and standard safety practices including Cal OSHA practices.
Mathematical principles.
Common desktop applications and software.

Ability to:

Learn the methods and techniques involved in the maintenance and repair of water treatment and distribution and systems including pumps, valves, gauges, and chemical feeds.
Learn to operate a variety of mechanical maintenance equipment.
Learn to read, interpret, and work from plans, drawings, and specifications.
Learn to estimate small mechanical jobs.
Learn occupational hazards and standard safety practices including Cal OSHA practices.
Learn procedures to maintain records of work performed.
Learn to diagnose operational problems in mechanical equipment and recommend corrective action.
Learn to prepare clear and concise reports.
Understand and follow verbal and written instructions.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to the completion of the twelfth grade.

Experience

One (1) year of experience in the maintenance of mechanical equipment components.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

Plant/Pipeline Mechanical Technician II

In addition to the qualifications for Plant/Pipeline Mechanical Technician I:

Working Knowledge of:

Methods and techniques involved in the maintenance and repair of water treatment and distribution and systems including pumps, valves, gauges, and chemical feeds.
Operations, services, and activities of a mechanical maintenance program.
Operational characteristics of mechanical maintenance equipment and tools.
Operational methods and techniques associated with water treatment process.
Occupational hazards and standard safety practices including Cal OSHA practices.

Ability to:

Operate a variety of mechanical maintenance equipment.
Read, interpret, and work from plans, drawings, and specifications.
Procedures to maintain records of work performed.
Diagnose operational problems in mechanical equipment and recommend corrective action.
Perform the most complex maintenance and repair functions on District water treatment and distribution systems.
Perform mechanical maintenance on pipelines, equipment in pumping stations, hydroelectric plants, and water treatment plants.
Estimate labor and materials required to correct mechanical problems.
Prepare clear and concise reports.
Use common desktop applications and software.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Equivalent to the completion of the twelfth grade.

Experience

One (1) year of post-apprenticeship experience in the maintenance of mechanical equipment and components. In lieu of a journey person certificate, candidate should possess four (4) years of journey-level experience in the maintenance of mechanical equipment and components.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

WORKING CONDITIONS

Physical Conditions

Office and field environment; some positions require frequent field visits or occasional field assignments; travel from site to site; work closely with others or alone; exposure to electrical and radiant energy; irregular work hours including overtime and on-call; some positions may involve exposure to inclement weather; heat, cold, dampness, chilling and dry atmospheric conditions; uneven terrain; slippery surfaces; work in confined spaces; work at elevated heights, work with machinery; work around moving vehicles and around high traffic; exposure to biohazards; dirt, dust, fumes, vapors, smoke, gases, noise, poison oak, chemicals, biological and chemical contaminants, wildlife, and other conditions associated with construction sites, water treatment plants and urban and remote field conditions.

Environmental Conditions

Essential and other important functions may require maintaining physical condition necessary for walking, standing or sitting for extended periods of time; audiovisual acuity; manual dexterity; some moderate to heavy lifting; operating motorized equipment and vehicles, walking on uneven surfaces including hard terrains, uneven slopes, and inclined surfaces; stooping, pushing, pulling, squatting, crawling, twisting, kneeling, climbing, and bending at neck and waist; simple grasping; fine manipulation; power grasping; work above and below shoulder and in awkward positions.

CLASS LEGEND

Established Date: 5/2018
Employee Groups: EA
Revisions Dates: 5/2019, 9/2021

	<u>Current</u>	<u>Previous</u>
Class Code:	JA2/5	
Series Code:	1JA	
Family Code:		
Previous Titles:		Plant Maintenance Mechanic I/II
Analyst:	FD	