

PREVENTATIVE MAINTENANCE TECHNICIAN I  
PREVENTATIVE MAINTENANCE TECHNICIAN II

DEFINITION

To perform a variety of skilled installation, maintenance, repair and service work on equipment used in water and wastewater treatment, water distribution and wastewater collection systems and related facilities.

DISTINGUISHING CHARACTERISTICS

Preventative Maintenance Technician I - This is the entry level class in the Preventative Maintenance Technician series. Positions in this class typically have apprentice level work experience and work under immediate supervision while learning job tasks. The Preventative Maintenance Technician I class is distinguished from the II level by the performance of less than the full range of multi-skilled duties assigned to the II level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

Preventative Maintenance Technician II - This is the journey level class in the Preventative Maintenance Technician series and is distinguished from the I level by the ability to perform the full range of multi-skilled duties assigned with only occasional instruction or assistance as unusual or unique situations arise. Positions in this class are flexibly staffed and are normally filled by advancement from the level I position.

This class is distinguished from the Senior Preventative Maintenance Technician in that the latter performs advanced journey level work and provides technical and functional supervision over assigned staff.

SUPERVISION RECEIVED AND EXERCISED

Preventative Maintenance Technician I

Receives immediate supervision from the Maintenance Supervisor, and receives technical and functional supervision from a Senior Preventative Maintenance Technician.

Preventative Maintenance Technician II

Receives general supervision from the Maintenance Supervisor, and receives technical and functional supervision from a Senior Preventative Maintenance Technician.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Perform maintenance, repair, and service duties related to a variety of machinery and equipment used in water and wastewater treatment plants and related facilities, including wells, water storage tanks, lift/pump stations,

distribution and collection pipelines; diagnose and troubleshoot problems associated with equipment and machinery.

Install, inspect, dismantle, repair, reassemble and calibrate machinery and equipment such as pumps, valves, motors, engines, compressors, and diesel generators, reciprocating gas engines, gear reducers, chemical feed and metering devices, instrumentation, process analyzers and dewatering equipment.

Perform routine mechanical fabrication, welding and machine tool operations as needed to modify and repair water and/or wastewater treatment plant process equipment.

Install conduit, pull cables, terminate wires, modify circuits and update documentation to reflect system changes.

Install, inspect, maintain, troubleshoot and repair motor controls and automated switchgear, control systems, instrumentation, process analyzers, programmable logic controllers (PLC's) and Supervisory Control and Data Acquisition (SCADA) applications and networks, radio frequency data communications equipment and other devices related to water and wastewater treatment processes and related facilities.

Follow control of hazardous energy (COHE) procedures before engaging in work, especially in confined space areas; make notes regarding readings and findings of work.

Assist in installation and construction of various projects; read and interpret blueprints and specifications and perform work accordingly; make rough sketches of work to be performed.

Use a computer to enter and retrieve information related to work assignments and record-keeping.

Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.

Perform related duties as assigned.

### MINIMUM QUALIFICATIONS

#### Preventative Maintenance Technician I

##### Knowledge of:

Methods, tools, and equipment used in the maintenance and repair of mechanical and electrical/electronic equipment.

Operation, maintenance, troubleshooting and repair of pumps, motors, valves and other mechanical and electrical equipment.

Principles of electrical circuits, process control systems, instrumentation, chemical analyzers and standard terms of the mechanical and electrical trades.

Principles and practices of complex maintenance and repair programs including preventative, condition based, investigative, reactive and reliability-centered maintenance, root cause analysis, and equipment criticality rating.

Safe work practices for all aspects of job related functions.

Ability to:

Perform multi-skilled work related to the troubleshooting and repair of mechanical and electrical/electronic equipment.

On a continuous basis, know and understand operations, and observe safety rules, policies and procedures. Intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others.

Intermittently, sit while studying or preparing reports; bend, squat, climb, kneel and twist when installing, repairing, and servicing equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

Communicate clearly and concisely, both verbally and in writing.

Be on-call evenings or week-ends; work unusual/prolonged work schedules as required by workload and during emergencies or seasonally-caused circumstances.

Establish and maintain effective working relationships with those contacted in the course of work.

Experience and Training

Experience:

One year of experience in the maintenance and repair of water treatment, wastewater treatment, or related industrial facility equipment is desirable.

Training:

Equivalent to completion of the twelfth (12<sup>th</sup>) grade, GED, or higher level degree, supplemented by the equivalent of half the course work to obtain an Associate's degree in Mechatronics or similar multi-skilled degree. Course work towards a vocational degree from an accredited institution in mechanical, electrical, electronic, communications, networking, instrumentation and controls trades or a related field may be considered for equivalency.

License or Certificate

Possession of a valid California driver's license by date of appointment.

Preventative Maintenance Technician II

In addition to the qualifications for the Preventative Maintenance Technician I:

Knowledge of:

The techniques and work practices required to accomplish effective mechanical, electrical, instrumentation and controls maintenance programs in an industrial continuous process environment such as a water and/or wastewater treatment plant.

Ability to:

Independently and safely perform skilled mechanical and electrical/electronic maintenance and repair work on industrial continuous process equipment and systems such as in a water and/or wastewater treatment plant including gauges, motors, pumps, valves, switch gear, instrumentation, process analyzers, programmed logic controllers, SCADA systems, and low voltage (< 600V) electrical circuits and distribution systems.

Experience and Training

Experience:

Two years of increasingly responsible experience performing multi-skilled maintenance and repair work similar to that of a Preventative Maintenance Technician I with the City of Roseville. Apprentice level experience in both mechanical and electrical trades is required. Journey level experience in both mechanical and electrical trades is preferred.

Training:

Equivalent to completion of the twelfth (12<sup>th</sup>) grade, GED, or higher level degree, supplemented by the equivalent of half the course work to obtain an Associate's degree in Mechatronics or similar multi-skilled degree. Course work towards a vocational degree from an accredited institution in mechanical, electrical, electronic, communications, networking, instrumentation and controls trades or a related field may be considered for equivalency. Journey level experience in both trades may be substituted for the degree or certificate.

License or Certificate

Possession of a valid California driver's license by date of appointment.

12-17-18

10-22-10

08-15-09

Preventative Maintenance Technician I/II