

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Environmental Services Department	Wastewater Mechanical Supervisor	Non-exempt

CLASS SUMMARY

Performs skilled journey-level work of moderate difficulty in the maintenance, repair, and overhaul of varied industrial mechanical equipment; or in the operation and maintenance of large bore, medium speed, stationary, reciprocating engines, and auxiliary equipment at the San José-Santa Clara Regional Wastewater Facility. Performs related work as required.

DISTINGUISHING CHARACTERISTICS

This is a two-level flexibly-staffed class and is the journey-level mechanic in the Wastewater Mechanic series. It differs from the next higher class of Senior Wastewater Mechanic in that incumbents of the latter provide lead direction to Wastewater Mechanics. Depending on the work group, assignments will be made to any shift needed for an around-the-clock operation. Incumbents must also be available for work on Saturdays, Sundays, and Holidays.

Duties require a heavy level of physical exertion, including exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly to move objects (e.g. large hand tools, pipes, or other wastewater equipment). Incumbents work with large industrial equipment and machinery, in confined spaces, and around hazardous materials. Incumbents may be required to utilize self-contained breathing apparatus (SCBA) equipment, which requires the ability to pass an annual fit and spirometry test.

QUALIFICATIONS

Minimum Qualifications

Wastewater Mechanic I

Education and Experience

Successful completion of high school, General Educational Development (G.E.D.) Certificate, or California Proficiency Certificate.

Two (2) years journey-level experience as a mechanic in hydraulics, wastewater treatment or a closely related industry or in operation, maintenance, repair, and overhaul of mechanical and electrical equipment related to large stationary diesel and spark-ignited engines, and/or power generators; OR four (4) years' experience assisting Wastewater Mechanics in the maintenance and repair of wastewater equipment at a level equivalent to Wastewater Attendant or Assistant Heavy Diesel Equipment Operator/Mechanic with the City of San José.

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)

Acceptable Substitution

Completion of the Attendant Skills Knowledge and Evaluation (SKE) program and completion of the certification as Plant Mechanical Technologist Grade I from California Water Environment Association (CWEA) may be substituted as one (1) year experience assisting Wastewater Mechanics in the maintenance and repair of wastewater equipment at a level equivalent to Wastewater Attendant or Assistant Heavy Diesel Equipment Operator/Mechanic with the City of San José.

Required Licensing

Possession of a valid State of California Class C driver's license. As a condition of employment in some designated positions, possession of a valid State of California Class A or B driver's license with applicable endorsements may be required in the performance of job duties.

Wastewater Mechanic II**Education and Experience**

Successful completion of high school, General Educational Development (G.E.D.) Certificate, or California Proficiency Certificate.

Two (2) years journey level experience as a mechanic in hydraulics, wastewater treatment or a closely related industry or in operation, maintenance, repair, and overhaul of mechanical and electrical equipment related to large stationary diesel and spark-ignited engines and/or power generators OR four (4) years experience assisting Wastewater Mechanics in the maintenance and repair of wastewater equipment at a level equivalent to Wastewater Attendant with the City of San José, OR completion of the Attendant Skills Knowledge and Evaluation(SKE) program and certification as Plant Mechanical Technologist Grade I from California Water Environment Association (CWEA) with three(3) years experience assisting Wastewater Mechanics in the maintenance and repair of wastewater equipment at a level equivalent to Wastewater Attendant with the City of San José; AND certification as Plant Mechanical Technologist Grade II from California Water Environment Association (CWEA).

Acceptable Substitution

Two (2) years of experience as a Wastewater Mechanic I may be substituted for the certification as Plant Mechanical Technologist Grade II.

Required Licensing

Possession of a valid State of California Class C driver's license. As a condition of employment in some designated positions, possession of a valid State of California Class A or B driver's license with applicable endorsements may be required in the performance of job duties.

Other Qualifications

(Incumbents may be required to have different combinations of the listed qualifications, or more specific job-related qualifications depending on the position.)

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)

Basic Competencies

(Needed at entry into the job in order to perform the essential duties.)

- Job Expertise – Demonstrates knowledge of and experience with applicable professional/technical principles and practices, Citywide and departmental procedures/policies and federal and state rules and regulations related to the wastewater facility.
 - Maintenance procedures associated with large bore, medium speed engines, valves, gearboxes, pumps and air compressors.
 - Mechanical principles, pneumatics, hydraulics and other equipment found in wastewater facility or similar heavy industrial facilities.
 - Diesel fuels and lubricants used in heavy-duty power plant operation.
- Communication Skills - Effectively conveys information and expresses thoughts and facts clearly, orally and in writing; demonstrates effective use of listening skills and displays openness to other people's ideas and thoughts.
- Computer Skills - Experienced with common business computer applications including but not limited to: MS Outlook, MS Word, MS PowerPoint, MS Access, and MS Excel.
- Teamwork and Interpersonal Skills - Develops effective relationships with co-workers and supervisors by helping others accomplish tasks and using collaboration and conflict resolution skills.
- Flexibility –makes effective decisions and achieves desired results in the midst of major changes in responsibilities, work processes, timeframes, performance expectations, organizational culture, or work environment.
- Initiative – exhibits resourceful behaviors toward meeting job objectives; anticipates problems, is proactive, and avoids difficulties by planning ahead; displays willingness to assume extra responsibility and challenges; pursues continuing education opportunities that promotes job performance.
- Multi-Tasking – can handle multiple projects and responsibilities simultaneously; has handled a wide variety of assignments in past and/or current position(s).
- Reliability – completes quality work assignments in a timely and efficient manner; fulfills responsibilities and maintains confidentiality as appropriate.

Additional Competencies and/or Desirable Qualifications

(Competencies, knowledge, skills and abilities that are more position specific and/or likely to contribute to more successful job performance.)

Knowledge of:

- Completion of technical trade school in the field of mechanics.
- Possession of specialized certification such as Backflow preventer installation and maintenance, Welding, Confined Space Entry, Power Plant, Hazardous Material Handling, etc.

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)

DUTY NO.	TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated frequency are a representative sample; position assignments may vary depending on the business needs of the department.) Duties may include, but are not limited to, the following:	FRE-QUENCY*
1	Installs, aligns, removes, and repairs various types of industrial equipment.	Daily
2	Performs preventive maintenance tasks and inspections of industrial equipment to prevent breakdowns.	Daily
3	Operates and maintains large bore medium speed engines operating on diesel and variable BTU methane, gas compressors and related auxiliary equipment	Daily
4	Dismantles, overhauls, and reassembles engines, centrifugal air compressors, methane gas compressors and auxiliary equipment	Daily
5	Makes continuous inspections of assigned equipment and adjusts and repairs parts needing specific attention.	Daily
6	Makes equipment setting adjustments to provide efficient engine and auxiliary equipment operation.	Daily
7	Interprets Distributive Control System (DCS) graphics and trends to monitor and adjust operating systems.	Daily
8	Reads, gathers data, and records data from meters, gauges, thermometers, and other recording and measuring devices which show operating conditions.	Daily
9	Operates three phase alternating current 5KV generator switchgear, using standard operating procedures.	Daily
10	Stays current with safety topics and issue to provide for safety in work areas, and for safe operation of the equipment.	Daily
11	Removes, installs, and relocates various pieces of heavy, unwieldy, or otherwise critical equipment and machinery using cranes, winches, hoists, dollies, rollers, and forklift trucks.	Weekly
12	Provides trainings and directs the activities of assigned Wastewater Attendants, Apprentice Wastewater Mechanics and other staff.	Weekly
13	Performs rigging, shoring and confined-space entry.	Weekly
14	Operates various equipment such as drill presses, bridgeport, lathe, and surface grinders as well as forklifts, backhoes, man lifts, front loaders, and all terrain forklifts.	Weekly
15	Operates and maintains low-pressure boilers.	Weekly
16	Installs, repairs and checks high pressure piping systems.	Intermittent
17	Modifies existing piping and tests systems and equipment for proper operation and conformance to standards.	Intermittent
18	Performs all-position welding for different types of metals and alloys of various sizes, thickness, and shapes; such as arc, tig, mig, as well as oxy-acetylene and plasma cutting.	Intermittent
19	Cuts plates, structural steel and alloys within close tolerances with flame-cutting torch equipment.	Intermittent
20	Prepares sketches, job orders and specifications.	Intermittent

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)

DUTY NO.	TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated frequency are a representative sample; position assignments may vary depending on the business needs of the department.) Duties may include, but are not limited to, the following:	FRE-QUENCY*
21	Reads and interprets blueprints and drawings.	Intermittent
22	Lays out, cuts, bends and assembles pipes and other component parts for the fabrication of new systems.	Intermittent
23	Maintains records and prepares report on Computerized Maintenance Managed System	Intermittent
24	Modifies equipment for more efficient operation or reduced maintenance.	As Required
25	Performs other duties of a similar nature or level.	As Required

*Frequency defined as Daily/Several Times, Daily, Weekly, Intermittent, or As Required

PHYSICAL/ENVIRONMENTAL ELEMENTS

The following is a general statement for the classification. Individual positions may have additional or different physical/environmental elements.

Possess ability to:

- Operate, access, enter, and retrieve data using standard office equipment, including but not limited to a computer or tablet.
- Read printed materials and a computer screen.
- Communicate in person and over the telephone.
- Exert up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly to move objects (e.g. large hand tools, pipes, or other wastewater equipment).
- Move between/within work areas, including but not limited to sitting, walking, and standing on various surfaces, turning, bending, grasping, and making repetitive hand movements.
- Maintain professional demeanor during interactions with staff, customers, and the public.
- Repair a wide range of complex mechanical systems and equipment.
- Make equipment setting adjustments or to mechanically modify equipment for more efficient operation.
- Efficiently use mechanical hand and power tools and equipment common to wastewater facility maintenance.
- Use and read precision measurement devices such as micrometers, laser alignment tools, dial indicators, etc. for measuring and machinery alignment.
- Operate power switchboard, and adjust distribution of electric power.
- Identify problems or hazards, work in confined spaces and around machines, and climb/descend ladders.
- Be exposed to unpredictable working conditions including but not limited to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, hazardous physical substances, fumes, dust, and air contaminants.

CLASSIFICATION HISTORY *Created 5/80; Rev. 11/86, 4/92, 4/98; Rev, Ret (formerly Plant Mechanic) &*

City of San José
CLASS SPECIFICATION
WASTEWATER MECHANIC I/II (3622/3672)
Cons. with Heavy Diesel Equipment Operator/Mechanic 8/13; Rev. 01/21; s003