SOUTH COAST WATER DISTRICT

TRANSMISSION MAIN OPERATOR I/II/III

DEFINITION

This position is located in the JRWSS Section of the Operations Department and performs a variety of routine to skilled work in the installation, repair and maintenance of the District’s water transmission mains and reservoirs; assists in project inspections during maintenance and construction of District transmission mains and reservoirs; may obtain water and other meter readings; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

This position reports to the Transmission Main Supervisor. No direct supervision of staff is exercised. May provide technical and functional direction to lower-level staff.

CLASS CHARACTERISTICS

Transmission Main Operator I: This is the entry-level class in the transmission main maintenance series. Initially under close supervision, incumbents with basic maintenance experience learn District infrastructure, systems, and facilities, use of tools and equipment, and a wide variety of practices and procedures. As experience is gained, assignments become more varied and are performed with greater independence. This class is alternately-staffed with Transmission Main Operator II and incumbents may advance to the higher level after gaining the knowledge, skill, experience, licenses and certifications which meet the qualifications for and demonstrating the ability to perform the work of the higher-level class.

Transmission Main Operator II: This is the journey-level class in the transmission main maintenance series that performs the full range of duties required to ensure that District infrastructure, systems, and facilities to which assigned are maintained in a safe and effective working condition and provide the highest level of safety for public use. Responsibilities include inspecting and attending to assigned areas in a timely manner, and performing a wide variety of tasks in the maintenance and repair of assigned facilities and systems. This class is flexibly staffed with Transmission Main Operator III, and incumbents may advance to the higher level class after gaining experience, demonstrating proficiency in the skill sets established by the District which meets the qualifications for that classification and obtaining the required certification.

Transmission Main Operator III: This is the advanced journey-level class in the transmission main maintenance series that performs the full range of duties required to ensure that District infrastructure, systems, and facilities to which assigned are maintained in a safe and effective working condition and provide the highest level of safety for public use. Responsibilities include inspecting and attending to assigned areas in a timely manner, and performing a wide variety of tasks in the maintenance and repair of assigned facilities and systems. This class is distinguished from Senior Transmission Main Operator in that the latter is responsible for technical and functional direction over lower-level maintenance staff and is capable of performing the most complex duties assigned to the division.

The incumbent ensures that her/his activities are aligned with and support the South Coast Water District’s policies, mission, vision, core values, core strategies, and annual action items as well as performance measures.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS

Duties may include, but are not limited to, the following:

- Performs a variety of semi-skilled work to monitor, maintain, and repair water transmission lines that transmit water from suppliers to private and public customers.
- Monitors, maintains, and repairs reservoirs storing water for public and private customers.
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<th>Description</th>
<th>Transmission Main Operator I/II/III</th>
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- Monitors and maintains water quality in reservoirs and transmission line; collects water quality samples for analysis; performs a variety of basic water quality analyses and/or prepares samples to be sent to the laboratory.
- Inspects water services for compliance with established codes and/or damaged or worn parts, and makes repairs as necessary.
- Performs valve maintenance and leak detection with the use of electronic devices.
- Installs and maintains different metering devices throughout the District’s transmission infrastructure to monitor water flows.
- Records daily reservoir levels, system flows, pressures and master meter reads from telemetry system.
- Reports water service defects and public safety hazards, including providing exception list information and reporting hazards to supervisors.
- Responds to requests from member agencies for flow changes.
- Reports monthly reads from master meters and performs maintenance as required.
- Monitors and maintains reservoir altitude valves, motor operated valves, pressure sustaining valves, high pressure relief valves and other facilities.
- Monitors and maintains earthen dam reservoir site and related facilities and equipment.
- Shuts down and drains lines in preparation for contractor’s work on transmission lines; may perform project inspections of maintenance and construction work completed by contractors on transmission lines and reservoirs.
- Responds to and coordinates contact with contractors and other utilities requesting service for Underground Service Alerts (USA).
- Operates specialized vehicles and a variety of light, medium, and heavy equipment related to the construction, maintenance, and repair of the District’s transmission main system and reservoirs.
- Performs asphalt and concrete repair and patchwork; removes trees, brush, and debris from right-of-ways to access main lines and laterals.
- Uses pavement breaker to begin trenches or make minor excavations, places shoring where required, and makes necessary installations and repairs to both the distribution and collection system pipelines.
- May learn how to operate a backhoe loader, compressor, trencher, and various power and hand tools.
- Assists in backfilling excavations and applies temporary resurfacing to repair area.
- Raises, sets and seals valves and manholes as required.
- Reads and interprets maps and diagrams in the performance of the work.
- Observes safe work methods and makes appropriate use of related safety equipment as required.
- Operates and maintains a variety of light, medium, and heavy-duty equipment and trucks, as well as hand and power tools appropriate to the functional area of assignment.
- Maintains work areas in a clean and orderly condition, including securing equipment at the close of the workday.
- Installs street barricades and cones, and controls traffic around work sites to ensure safe conditions for the general public and District workers.
- Provides needed information and demonstrations concerning how to perform certain work tasks to new employees in the same or similar class of positions.
- Answers inquiries from citizens regarding work performed; maintains accurate records of work performed.
- May assist other maintenance crews in emergency or relief situations.
- Performs confined space entry.
- Performs after hours stand by duty in a scheduled rotation to respond to emergency services and perform after hours regular operations.
- Performs related duties as assigned.

**QUALIFICATIONS:**

Knowledge of:

- Maintenance principles, practices, tools and materials for maintaining and repairing water transmission systems, including water hydraulics, valves, pipe materials and water service components, as well as water reservoirs.
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<td></td>
<td>Basic principles and practices of the design and fabrication of specialized tools or equipment used for the maintenance and repair of District infrastructure, which may include arc and gas welding, and oxygen acetylene cutting.</td>
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<td></td>
<td>The operation and minor maintenance of a variety of hand and power tools, vehicles and power equipment.</td>
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<td>Basic traffic control procedures and traffic sign regulations.</td>
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<td></td>
<td>Shop arithmetic.</td>
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<td>Safety equipment and practices related to the work, including the handling of hazardous chemicals.</td>
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<tr>
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<td>Safe driving rules and practices.</td>
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<td>Computer software related to work such as SCADA and other telemetry systems.</td>
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<td>English usage, spelling, vocabulary, grammar and punctuation.</td>
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<td>Techniques for providing a high level of customer service to public and District staff, in person and over the telephone.</td>
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**Ability to:**
- Perform construction, modification, maintenance and repair work on water transmission systems, facilities and equipment, as well as water reservoirs such as found in the District.
- Operate specialized maintenance and repair equipment related to water main cleaning.
- Perform a variety of fabrication and design duties, which may include arc and gas welding, and oxygen acetylene cutting.
- Set up and operate traffic area construction zones, including cones, barricades and flagging.
- Locate underground utilities by use of blue prints and electronic locating equipment in accordance with Underground Service Alert (USA) regulations.
- Troubleshoot maintenance problems and determine materials and supplies required for repair.
- Make accurate arithmetic calculations.
- Read and interpret construction drawings and specifications.
- Safely and effectively use and operate hand tools, mechanical equipment, power tools, and equipment required for the work.
- Perform routine equipment maintenance.
- Maintain accurate logs, records and basic written records of work performed.
- Follow department policies and procedures related to assigned duties.
- Understand and follow oral and written instructions.
- Organize own work, set priorities and meet critical time deadlines.
- Use English effectively to communicate in person, over the telephone and in writing.
- Use tact, initiative, prudence and independent judgment within general policy, procedural and legal guidelines.
- Establish and maintain effective working relationships with those contacted in the course of the work.

**EXPERIENCE AND TRAINING GUIDELINES**

*Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

**Experience:**

**Transmission Main Operator I:** No experience required.

**Transmission Main Operator II:** Two (2) years of experience in the operation, maintenance, and repair of underground utilities.

**Transmission Main Operator III:** Three (3) years of experience in the operation, maintenance, and repair of underground utilities equivalent to that of the Transmission Main Operator II at SCWD.
Training:

Transmission Main Operator I, II and III: Equivalent to the completion of the twelfth (12th) grade. College-level coursework in water science, engineering, construction methods or a related field is desirable.

License and Certificate Requirements:

License and certificates are required at the time of appointment and must be maintained during District employment.

Transmission Main Operator I:
- Valid California Class B driver license with the appropriate endorsements and satisfactory driving record.
- Possession of a valid Grade I Water Distribution Operator Certificate issued by the California Department of Public Health (CDPH).

Transmission Main Operator II:
- Valid California Class B driver license with the appropriate endorsements and satisfactory driving record.
- Possession of a valid Grade II Water Distribution Operator Certificate issued by the CDPH.

Transmission Main Operator III:
- Valid California Class B driver license with the appropriate endorsements and satisfactory driving record.
- Possession of a valid Grade III Water Distribution Operator Certificate issued by the CDPH.

PHYSICAL DEMANDS

Must possess mobility to work in the field; strength, stamina and mobility to perform medium to heavy physical work, to work in confined spaces, around machines and to climb and descend ladders, and operate varied hand and power tools and construction equipment; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 75 pounds and heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives, and contractors in interpreting and enforcing departmental policies and procedures.

WORKING CONDITIONS

Must be willing to work weekends, holidays, and off-hour shifts for emergency callback response.

The specific statements shown in each section of this classification description are not intended to be all-inclusive. They represent the essential functions and minimum qualifications necessary to successfully perform the assigned functions. Management reserves the right to add, modify, change or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.