



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

INLAND COMMERCIAL DIVER

Group-Section: Water System Operations	FLSA Status: Non-Exempt Bargaining Unit: AFSCME	Salary Grade: 47 Job #: T14
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JOB SUMMARY

The journey level Inland Commercial Diver (Diver) position is responsible for conducting various diving operations for Metropolitan and member agencies. The Diver participates in all of Metropolitan's maintenance diving operations and some water quality diving operations utilizing surface supplied air or SCUBA equipment. This position is responsible for maintaining and assisting with refurbishing Metropolitan's valves, pumps, gates, and other mechanical equipment both under water and above water, in facilities and field locations utilizing journey level mechanical skills, experience and knowledge in the practices, procedures, and methods of installing, maintaining, and repairing both general and complex water utility and facility mechanical systems above water and under water. The Diver monitors and inspects mechanical equipment and related systems for reliable operating condition and performance including predictive and diagnostic testing; preventive and corrective maintenance; improving equipment and asset capacity and upgrading systems to meet conveyance and distribution, treatment plants, and pumping plants operating and service demands.

DISTINGUISHING CHARACTERISTICS

An Inland Commercial Diver at the journey level is fully competent and applies the full range of specialized skills and job knowledge in area of specialization; adapts procedures, operations, techniques, tools, materials, and/or equipment to meet needs of area of specialization. The Diver uses judgment in interpreting and adapting guidelines such as policies, regulations, precedents, and work directions for application to specific cases or problems. The decision regarding what needs to be done depends upon the analysis of the subject, phase, or issues involved in each assignment; and the chosen course of action may have to be selected from many alternatives. The work involves treating a variety of conventional problems, questions, or situations in conformance with established criteria.

OVERSIGHT

Supervision Received: Work is performed with minimal and at times intermittent on-site supervision. Broad direction is given in terms of operations and maintenance objectives that may require self-initiated work planning, sequencing and coordination of material and tool resources.

Receives oversight from the Team, Unit, Section, Assistant Group, or Group Manager.

Supervision Given: May act as a lead. May coordinate and review work assignments of employees performing the same general work as the lead on a day-to-day basis.

Diver-in-Charge: The Diver-In-Charge shall be in charge of all aspects of the diving operation, including:

- Prepares or reviews and approves the dive plan
- Conducts the diving safety tailgate
- Completes equipment safety checks and any required forms and reports
- Reviews and coordinates work of other Divers

To qualify for the assignment of the Diver-In-Charge, a Diver must have:

- Two years of experience as an Inland Commercial Diver with Metropolitan

- Successfully demonstrated thorough knowledge of the Diver Safety Manual, standard practices and policies, Association of Diving Contractors (ADC), U.S. Navy Diving Tables, and emergency procedures
- Current ADC card

Both the Dive Safety Officer and the Dive Coordinator must approve an assignment to Diver-In-Charge as described in Metropolitan's Diver Safety Manual (HSE 125).

JOB DUTIES

1. Performs regulatory inspections and repairs to covered water reservoirs using the American Water Works Association (AWWA) technical standards C652.
2. Performs periodic cleaning, inspection, and repairs to underwater structures including pressure washing, dredging, and documenting with video.
3. Uses, services, and maintains Metropolitan's diving and life support equipment including SCUBA, Kirby-Morgan helmets, surface air supply compressors, umbilical hoses, deck decompression chamber, and underwater and surface communication masks and devices.
4. Works with underwater hydraulic tools and equipment including drills, grinders, saws, power washers, pumps, welders, lift bags, and exothermic cutters.
5. Operates Metropolitan diving boats and barges.
6. Completes preventive and corrective activities on large-scale water conveyance and distribution infrastructure and assets, including but not limited to aqueducts, tunnels, pipelines, siphons, feeders, canals and reservoirs to maintain distribution system integrity, capacity, and operational reliability.
7. Rebuilds and repairs conveyance and distribution infrastructure equipment, systems, and processes as necessary. Plans work, fabricates parts, and assembles and installs to bring equipment/processes to as-designed operating condition.
8. Assists with the planning and coordination of scheduled predictive maintenance, preventive maintenance, and corrective maintenance, as well as unplanned outages, shutdowns, and other emergency situations to minimize equipment downtime and interruption of service to member agencies or other customers.
9. Performs underwater diving operations to support Metropolitan, member agencies, or other contracted local or state agencies as required.
10. Performs other related job duties as assigned.

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EMPLOYMENT STANDARDS

MINIMUM QUALIFICATIONS

Education and Experience: High school diploma or certificate of high school equivalency in addition to a minimum of 6 years of experience in a related mechanical maintenance position servicing above water and underwater large commercial or industrial equipment such as valves, pumps, gates, hydraulic and other large mechanical equipment and apparatus. Must have a Commercial Diver Rating with a minimum of 150 documented dives.

Required Knowledge of: Diving procedures and techniques; emergency procedures, CPR, first aid, oxygen provider and AED operations; physiological hazards as they relate to diving and diving equipment; machine shop equipment for metal fabrication and tools to ensure reliable operations for the movement and treatment of water, generation of power, and optimization of assets and equipment to meet operational demands within established limits and standards; contemporary maintenance reliability analysis and troubleshooting methods including determination of failure causes, diagnostic analysis through failure mode, and root cause analysis; using traditional analog and precision digital instruments to ensure critical measurements and alignments as part of diagnostic and predictive maintenance.

Candidates must have extensive knowledge through training and experience with setting-up, operating, and maintaining deck decompression chambers, working knowledge of surface decompression chambers and U.S Navy Treatment Tables.

Required Skills and Abilities to: Perform surface supplied air diving and SCUBA diving; rigging and underwater lifting; underwater cutting and burning; valve operation and maintenance; understand and interpret mechanical engineering data necessary to effectively implement predictive, preventive, corrective, and improvement activities.

CERTIFICATIONS, LICENSES, AND REGISTRATION REQUIREMENTS

Employees in this position are required to possess and maintain the following certifications, licensing and registrations:

ADC/ADCI Card or completion and certification from an accredited commercial dive college

Ratings/Certificates:

To qualify for a position as an Inland Commercial Diver, candidates must have a commercial dive rating and have logged at least 150 dives. These can be a combination of working and training dives listed in a signed ADC/ADCI logbook or company dive log.

Employees may also be required to obtain and maintain the following certifications:

- Forklift Certification

In addition, candidates must have proof of employment with one or more commercial dive companies as a working commercial diver with a minimum of five years of field experience.

Licenses

- Valid Driver's license from state of residency equivalent to a California Class A, B, and/or C with appropriate commercial license endorsements
- California Boater Card approved by the California State Parks Boating and Waterways

Registrations

- None

PHYSICAL DEMANDS, WORK ENVIRONMENT, AND VISION REQUIREMENTS

Expectations of Hours of Service, Emergency and Stand-by Service:

Employees in this position may be required to work off-shift hours and/or stand-by service to address operational needs and emergencies as required. Staff may be required to work extended periods away from the normal reporting location.

Physical Demands:

Heavy tasks may require lifting and carrying items weighing up to 50 pounds, with intermittent need to lift and carry materials and/or equipment weighing up to 100 pounds with assistance. Frequently requires pushing, pulling, turning and positioning parts, assemblies, equipment and tools weighing as much as 100 pounds with assistance. May be required to lift and move heavy items with the assistance of others and with lifting devices such as jacks, hoists and cranes of varied types and capacities. Physical effort includes frequent walking, stooping, bending, reaching, standing, crawling, climbing, kneeling and sitting for long periods of time, and swimming. At times may be required to use Self Contained Breathing Apparatus (SCBA) or other respiratory filtration and personal protection devices. Required to carry dive equipment such as umbilical hoses, compressed air tanks, helmets and tools up and down steep slopes. Works in confined places and hyperbaric conditions.

In addition, demands include breathing compressed air in waters as cold as 40 degrees Fahrenheit.

Employees in this class are required to pass an annual dive physical.

Work Environment:

Work is performed indoors and outdoors; above water and underwater at large pumping, treatment, hydroelectric or control facilities, or associated assets, under all types of conditions including extreme temperatures, open and confined spaces ranging from crawl space to sub-structures including permit required confined spaces as well as varied types of terrains. Job tasks frequently require working from heights or depths including penetration dives with influent and effluent flows, functioning from lifts, hoists, scaffolds, and cranes over surfaces ranging from earthen materials to concrete, steel, hypalon, and water. Work frequently is conducted in close proximity to high volume/pressurized water and may be exposed to electrically energized equipment including high voltage systems. The work environment often involves exposure to equipment and tools producing high levels of noise, as well as potentially dangerous materials, chemicals, and machinery that require careful adherence to extensive safety precautions, rules and regulations. Exposure to high heat conditions standing on covered reservoirs or at remote dive sites, working from a boat in varying weather conditions, and diving in cold water and in confined spaces or hyperbaric conditions.

Vision Requirements: Close vision (clear vision at 20 inches or less) and depth perception (three-dimensional vision, ability to judge distances and spatial relationships).

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