

INSTRUMENT TECHNICIANDEFINITION

Under general supervision, performs technical duties in the installation, maintenance, calibration, repair and programming of electronic instruments and instrument systems such as flow meters, pressure and level sensors, on-line chemical analyzers, Programmer Logic Controllers (PLCs) and other computer-based process control instrumentation equipment; operates and maintains the Supervisory Control and Data Acquisition (SCADA) system.

ESSENTIAL FUNCTIONS INCLUDE BUT ARE NOT LIMITED TO

Conducts preventive maintenance, calibration and testing program of electronic instruments to preclude equipment failure and related process control problems. Repairs, corrects, and adjusts equipment which does not meet predetermined standards of operating efficiency. Reviews work orders, blueprints, ladder logic control diagrams, and maintenance schedules with supervisor for specific maintenance, upgrade and repair projects. Maintain and program field PLCs; maintain control room SCADA, network servers and associated computer software and hardware. Plans tool and work sequences necessary for maintenance activities and coordinates plans with assigned personnel to enhance operational efficiency. Assists in design and construction of new equipment or modification of existing electronic systems. Maintains inventory of tools, records, parts, and other material necessary for preventive maintenance of equipment. Provides instruction to operations and maintenance personnel to assure better understanding of equipment. Documents and maintains control process descriptions and operational manuals. May be assigned to standby and after-hours callout duties. Performs other functions as assigned.

DISTINGUISHING CHARACTERISTICS OF THE CLASS

Instrumentation Technician is a journey-level classification involving a variety of specialized and skilled duties in the installation, repair, maintenance, and calibration of water/wastewater related instrumentation and control equipment. Incumbents work with minimum supervision and work is reviewed through periodic inspection and consultation. This classification is distinguished from the lower-level classification of Water Systems Operator II by the scope and complexity of duties performed. This classification is distinguished from the advanced journey-level classification of Water Systems Operator III in that the latter has lead supervision responsibilities and also by the degree of difficulty, complexity, independence, and scope of the electrical and mechanical maintenance duties the latter class performs.

CHARACTERISTICS OF SUCCESSFUL PERFORMERS

Successful Instrument Technicians are mechanically inclined individuals with strong computer knowledge and skills, who enjoy troubleshooting and maintaining a variety of electronic instruments and programming PLCs and SCADA systems. They keep current with new developments and technology in the process control industry, and adapt readily to changes in equipment, work methods and control logic. As experts in their field, these safety conscious individuals are equally comfortable working by themselves or in a team environment.

RECOMMENDED MINIMUM QUALIFICATIONS

Two years of experience in the operation, maintenance, and repair of industrial instrumentation, control, and communication system components involving the application of physical, chemical, and electronic principles. College-level coursework in instrumentation, physical science, and electronics, or equivalent training in a recognized trade or technical school may be used in conjunction with experience to meet the minimum qualifications; or any equivalent combination of experience and education that would result in the following knowledge and abilities.

DESIRABLE KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of: the practices, methods, tools, materials, software and equipment used in the maintenance and repair of PLCs, computers, and electronic equipment; electrical circuits and wiring systems including the advanced principles of electrical and electronic theory; principles, practices and applications of Windows operating system; applications of solid state circuitry as used in computers and programmable controllers; occupational hazards and standard safety precautions necessary in the work.

Ability to: analyze problems, and initiate corrective procedures; plan, organize, and coordinate the work of others; work independently; make decisions about work methods and tools; understand and interpret written and oral instructions, including blueprints, PLCs ladder logic, and wiring diagrams; keep records and prepare necessary reports as required; establish and maintain effective working relationships with employees and the general public.

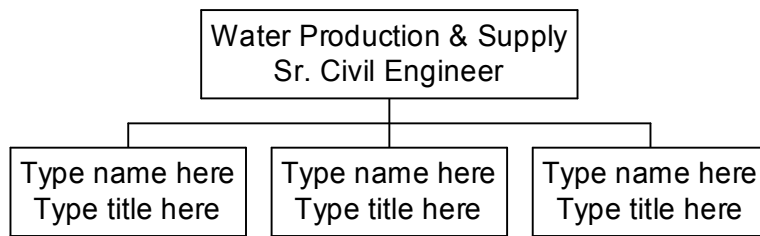
SPECIAL REQUIREMENTS

As a condition of continued employment in this classification, must possess and retain the following: a valid California Class C Driver's License, a valid California State Department of Health Services Water Distribution Certificate (WDC) – Grade III, a valid California State Department of Health Services Water Treatment Operator Certificate (WTC) – Grade II; Instrumentation Systems and Automation Society (ISA) Certified Control Systems Technician Level I certification.

SPECIAL WORKING CONDITIONS:

Willingness and ability to work irregular hours, including evenings and weekends, as needed.
Willingness and ability to work outside in a variety of weather conditions. Work may occasionally be performed in hazardous areas, including but not limited to, sewage sumps, elevated tanks, and high voltage equipment.

ORGANIZATIONAL RELATIONSHIPS



Class title established per Council Resolution No. 91-103,
effective 12-1-91

Class and specs established 11-91 per Reso 91-103

Revised: 03/03

ADA Approved: 03/03