



OPERATIONS SUPERVISOR (Automation and Controls)

Job Status: Exempt
Date Adopted: 07-2021
Date Modified: 03-16-2023

Safety Sensitive Position

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

Under general direction, supervises, assigns, reviews, and participates in the work of staff responsible for the areas of process automation control systems and process information networks. Plans, designs, programs, installs, and maintains Programmable Logic Controllers (PLC), Distributive Systems (DCS), Supervisory Control and Data Acquisition systems (SCADA), human-machine interfaces (HMI), and related automation and control systems. Implements and modifies central control systems, water treatment plant process control systems, RF and fiber optic-based communication systems, and field telemetry communications systems. Acts as a project leader, coordinating, overseeing, and inspecting the work of professional and technical staff; performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This is the first-line supervisor-level classification in the Water Production Department. The incumbent is responsible for developing, governing, and overseeing process automation and control standards and policies for designing and implementing related computer, network, telecommunications, applications, and technologies that provide cost-effective solutions and support achieving current and long-term goals and objectives within general policy guidelines. Supervises support staff and is responsible for directing day-to-day assignments of specific duties, ensuring completion and compliance with applicable standards, policies, and procedures, as well as providing technical assistance, training, writing, and conducting performance appraisals.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Operations Manager (Production).

Direct supervision provided to Electrical/Instrumentation Technicians and Controls Analyst.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Assigns, evaluate, and supervises the Controls Team's work, is responsible for installing, repairing, and maintaining network infrastructure and operating systems on multiple platforms for the District's PLC, SCADA, DCS, and Plant Information local area a
2. Coordinates and participates in maintaining and enhancing process automation and network functionality.

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3. Engineers, plans, coordinates, develops, implements, and maintains aspects of the District's SCADA systems, sub-systems, and related functions.
4. Provides leadership and works with staff to ensure a high-performance, customer service-oriented work environment that supports achieving the division's, department's, and District's mission, plans, objectives, and values.
5. Monitors and provides system administration for the District's process auto-mation and control systems, including the Distributive Control Systems (DCS), the Supervisory Control and Data Acquisition systems (SCADA), micro-wave wireless communications systems, radio and telecommunication systems; establishes and maintains configuration of hardware, cabling, and communications software and protocols and coordinates the integration of multiple networks, platforms, applications, and users.
6. Design, develop, and write programs for new automation and enhancements to existing PLCs, computers, configurations, and applications to facilitate operational requirements of the District's water treatment, production, and distribution systems.
7. Ensures the timely and accurate completion of preventive maintenance activities.
8. Develops, evaluates, tests, installs, troubleshoots, and modifies central control operator interface graphics, ladder logic, control, communication databases, application programs, and system support scripts.
9. Daily work instructions, guidance and performance feedback, are provided to staff and other project team members as assigned.
10. Provides training of staff in work methods, use of tools and equipment, and relevant safety precautions.
11. Reviews, modifies, and reports on District specifications and design documents for new and existing District facilities related to process control schemes, instrumentation, communication, and SCADA, checking for compliance with District and industry standards.
12. Direct the design, installation, and administration of automation and control systems network hardware, cabling, and software infrastructure; develops, recommend, and installs network architectures and proto-cols for fast, efficient sharing of data and applications among users and platforms.
13. Prepares various special studies and reports; develops recommendations to improve departmental operations and efficiency.
14. Performs and instructs others in the support, preventive maintenance, and repair of control systems, electronic and computer systems, components, devices, and equipment.
15. Requisitions and orders of necessary tools, equipment, and supplies.

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16. Utilizes software applications for troubleshooting, diagnostics, and record keeping.
17. Plans and lays out jobs from blueprints, drawings, sketches, or verbal instructions; maintain records in the form of blueprints, plans, and specifications for computers and electronic communications and instrumentation equipment and devices.
18. District employees are expected to work overtime, weekends, evenings, and holidays as required to accommodate the District's needs, in addition to responding as a Disaster Emergency Service Worker.
19. Regular attendance at the work site.

Marginal Functions:

1. System operation, including standby emergency response duties for after-hours distribution system operational emergencies, operates pumps and related flow and pressure control and storage facilities manually or by using system control and data acquisition (SCADA) system, maintaining and/or adjusting system flow and pressure requirements, control flows to meet consumer demands including fire flow demands and minimum pressure requirements, determine and control proper chemical dosage rates for wellhead disinfection and distribution residual maintenance.
2. Calculates and adjusts chemical solution concentration and dosages. Design, implement, and validate chemical mixing, batching, and feed systems—operation, installation, and calibration of online analyzers and instrumentation.
3. Perform related duties and responsibilities as required.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

Programmable Logic Controller (PLC) programming.
Human Machine Interface (HMI) software configuration.
Software, mechanical, and electrical maintenance principles and practices.
Principles and procedures of record keeping.
Advanced mathematical principles.
District control system equipment.

Ability to:

Analyze complex maintenance problems and recommend solutions.
Exercise independent judgment and initiative within established guidelines.
Orient and train employees.
Direct and guide the work of others.
Understand and carry out oral and written instructions.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain cooperative working relationships with those contacted in the course of work.
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

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Maintain mental capacity, which allows the capability of making sound decisions and demonstrating intellectual capabilities.

Maintain effective audio-visual discrimination and perception needed for making observations, communicating with others, reading, writing, and operating assigned equipment.

Work with other District departments to reach a common goal.

REQUIRED QUALIFICATIONS

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

Job Title	Operations Supervisor (Automation & Controls)
Experience	<ul style="list-style-type: none">• Five (5) years of progressively responsible experience in designing, developing process control, and implementing process automation, control, and telemetry systems.
Education/Training	<ul style="list-style-type: none">• Equivalent to an Associate Degree with a major in Electronics, Electrical Engineering, Computer Science, or a related field.
Required License/Certification	<ul style="list-style-type: none">• Possession of a valid T2.• Possession of a valid D2.• Possession of the CWEA, Electrical & Instrumentation Technologist Certification, Grade 3, or equivalent.
Desirable Degree/License/Certification	<ul style="list-style-type: none">• Valid D3.• Valid T3.• Bachelor's Degree in Business Administration, Public Administration, or a related technical field.
DMV Class	<ul style="list-style-type: none">• Possession of a valid California Class C driver's license and a satisfactory driving record.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The physical demands and working environment demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment:

Standard office setting and outdoor field environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, noxious odors, gases, vibrations, and all types of weather and temperature conditions; exposure to hazardous traffic conditions; work in or around water; work and/or walk on various types of surfaces including slippery or uneven surfaces and rough terrain; incumbents may be required to work extended hours including evenings and weekends.

Physical:

The incumbent requires sufficient mobility to work in an office setting and field environment; walk, stand, and sit for prolonged periods of time; frequently stoop, bend, kneel, crouch, crawl, climb, reach, and twist; push, pull, lift, and/or carry light to moderate amounts of weights; operate office equipment including the use of a computer keyboard; operate assigned equipment and vehicles; ability to verbally communicate to exchange information.

Physical Demands and Working Environment (continued):

Mental:

While performing the duties of this class, the employee is regularly required to use written and oral communication skills; read and interpret complex data, information, and documents; analyze and solve

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problems; observe and interpret people and situations; use math and mathematical reasoning; learn and apply new information or skills; perform highly detailed work on multiple, concurrent tasks with constant interruptions; work under intensive and constantly changing deadlines and interact with those encountered in the course of work, some of whom may be demanding, dissatisfied, and or upset.

Vision:

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

Hearing:

Hear in normal audio range with or without correction.