

OPERATIONAL TECHNOLOGY SUPERVISOR

DEFINITION

Under direction, plans, schedules, assigns, reviews, and supervises the work of staff responsible for the planning, design, development, testing, implementation, and day-to-day administration, operations, and maintenance of supervisory control and data acquisition (SCADA) and distributed control system (DCS) systems associated with municipal pumping, storage and distribution of potable, reclaimed, and agricultural water systems, and municipal water and wastewater treatment plants; coordinates assigned programs with other District departments; provides complex staff assistance to the Director of Information Technology; and performs related work as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Director of Information Technology. Exercises direct supervision over professional and technical staff.

CLASS CHARACTERISTICS

This is a full supervisory-level classification that exercises independent judgment related to SCADA and DCS programs, projects, and activities with accountability and ongoing decision-making responsibilities associated with the work. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of staff and for providing professional support to management in a variety of areas. Performance of the work requires the use of independence, initiative, and discretion within established guidelines. This class is distinguished from the Director of Information Technology in that the latter is a department director class with responsibility for managing the Information Technology Department.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations where appropriate so qualified employees can perform the essential functions of the job.

- Plans, organizes, assigns, supervises, and reviews the work of assigned staff; trains staff in work procedures; evaluates employee performance, counsels employees, and effectively recommends initial disciplinary action; assists in selection and promotion.
- Participates in the development of goals, objectives, policies, and procedures; recommends and implements policies and procedures including standard operating procedures for assigned operations.
- Monitors activities of the assigned work unit(s); identifies opportunities for improving service delivery and procedures; provides recommendations concerning process changes and reviews with appropriate management staff; implements improvements.
- Coordinates assigned programs and projects with those of other departments and outside agencies.
- Participates in annual budget preparation; identifies resource needs and prepares detailed cost estimates with appropriate justifications; monitors expenditures.
- Supervises and participates in the planning, design, development, testing, implementation, and day-to-day administration, operations, and maintenance the District's SCADA/DCS systems, instrumentation, and related equipment, as well as network systems and server

infrastructure supporting such systems.

- Manages various physical hardware and software applications related to SCADA, DCS, and information technology systems; verifies system and process functionality and efficiency; directs the modification and addition of applications using vendor tools and software; implements and maintains cybersecurity mitigation and response policies and procedures.
- Reviews and provides comments for plan checks and reviews for engineering projects; meets with District project team, consultants, contractors, and vendors and provides feedback on SCADA and DCS system design, installation, configuration, and operational needs.
- Supervises the installation, programming, repair, maintenance, upgrade, and calibration of all components of SCADA/DCS systems, instrumentation, and equipment such as, but not limited to, programmable logic controllers (PLCs) and variable frequency drives (VFDs); directs the testing of system and process functionality and efficiency.
- Supervises the troubleshooting and maintenance of network and communications software, hardware, and related equipment such as radios, network management system, and related systems and equipment.
- Designs graphics, configures control strategies, and ensures accurate capture of data and events in the database and servers; reviews, adds/deletes, and configures system functionality and features.
- Supervises the troubleshooting of electrical and electronic components; reviews and updates electrical and technical drawings, schematics, and related documentation.
- Plans, schedules, directs, and inspects the work performed by contractors to ensure adherence to District and industry standards.
- Serves as project manager for assigned projects, including overseeing project progress and reporting, assigning and delegating assignments to staff, gathering user and systems requirements, working with vendors, contractors, and other project staff, and developing technical and user documentation.
- Works collaboratively with District users and management to evaluate the impact of state and federal regulations on SCADA and DCS systems and develop systems and/or procedural modifications to ensure compliance with regulations.
- Provides staff assistance to the Director of Information Technology; researches, analyzes, summarizes, and interprets data from various sources; prepares various reports, correspondence, and other documents.
- Supervises the development and maintenance of user and technical operating instructions and documentation; provides training to users and other technical staff and advises on best practices.
- Attends meetings, conferences, workshops, and training sessions and reviews publications to remain current on principles, practices, technologies, regulations, and new developments and changes in the field of SCADA and DCS systems and infrastructure; implements policy and procedural changes after approval.
- Answers questions and provides information to the public and other agencies; investigates and responds to complaints and inquiries; recommends corrective actions to resolve issues.
- Ensures staff observe and comply with all District and mandated safety rules, regulations, and protocols; attends safety meetings, as required; reports all accidents, violations, or infractions to the manager.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles and practices of employee supervision, including work planning, assignment, review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Principles and practices of budget administration.
- Operational characteristics of process control instrumentation systems, equipment, and components and high-power equipment such as VFDs.
- Electrical theory, analog and digital theory, and electronic technology principles and practices.
- Advanced principles, techniques, methods, materials, and tools used in process control instrumentation installation, programming, troubleshooting, preventative and corrective maintenance, and repair work.
- Methods and techniques of evaluating business need requirements to provide technology solutions.
- Methods and techniques of troubleshooting electrical and electronic system issues.
- Principles, practices, equipment, and protocols for the operation, security, troubleshooting, maintenance, and monitoring of networks, hardware and software, server, and related equipment and devices associated with operations technology systems.
- Record keeping and filing system methods, principles, and practices.
- Principles and practices of business correspondence and technical report preparation.
- Applicable federal, state, and local laws, codes, and ordinances and District policies and procedures relevant to area(s) of responsibility.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Supervise the installation, programming, repair, maintenance, upgrade, and calibration of all components of SCADA/DCS systems, instrumentation, and equipment.
- Understand operations technology infrastructure and systems and the integration with water and wastewater operations processes.
- Analyze complex operational technology system problems, evaluate alternatives, and devise efficient, cost-effective, user-friendly solutions.
- Supervise the monitoring of system operational effectiveness, reliability, and security vulnerability; recommend and implement approved measures to ensure integrity and security of infrastructure and systems.
- Analyze complex user problems, evaluate alternatives, and devise efficient, cost-effective, user-friendly solutions.
- Supervise the preparation of clear, concise, and accurate technical documentation, user guides, reports of work performed, and other written materials.
- Communicate complex technology issues clearly to non-technical parties.
- Understand, interpret, explain, and apply all pertinent laws, codes, regulations, policies and

- procedures, and standards relevant to work performed.
- Supervise the maintenance of a variety of filing, record keeping, and tracking systems.
- Independently organize work, set priorities, meet critical deadlines and follow-up on assignments.
- Meet deadlines in a fast paced and changing environment; handle multiple assignments simultaneously.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications relevant to work performed and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

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

Education:

Equivalent to completion of the twelfth (12th) grade supplemented by technical training, shop courses, and/or electrical/electronic coursework or training.

Experience:

- Six (6) years of increasingly responsible experience maintaining and repairing SCADA/DCS systems, instrumentation, and equipment in domestic, reclaimed, and agricultural waste distribution, water or wastewater treatment facilities, or similar facilities, including two (2) years of lead or supervisory experience.

Licenses and Certifications:

- Possession of a valid California Class C driver's license, to be maintained throughout employment.
- Possess and maintain a valid Grade I Certified Control Systems Specialist Certification issued by Instrumentations, Systems, and Automations Society.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. 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.

PHYSICAL

- Level Three
- Pulmonary
- NIDA

Incumbents require 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.

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 the normal audio range with or without correction.