JOB DESCRIPTION
Control and Communication Analyst I
Code Number: 34003

GENERAL PURPOSE

Under general supervision, performs a variety of skilled duties in the development, installation, modification and support of supervisory control systems, plant control systems, RF and fiber-optic based telecommunication systems, and field telemetry control systems; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Control and Communication Analyst I is the entry-level class. Initially under immediate supervision, incumbents learn and perform a variety of skilled duties and responsibilities associated with the development, installation, modification, testing, calibration, maintenance and repair of electronic and computer-based process control and radio telecommunication systems and equipment. This class is distinguished from the Control and Communication Analyst II in that the latter is a journey level in the series, performing more complex tasks independently.

ESSENTIAL DUTIES AND RESPONSIBILITIES

*The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the class.*

Performs a wide variety of skilled, technical duties in the development, installation, modification and maintenance of the District’s radio communication, process control, supervisory control and telemetry systems.

Modifies, installs and supports software-based control and instrumentation logic.

Modifies, installs and supports systems used for the transportation of electronic signals across a wide geographic area.

Develops and tests graphic screens, databases and program scripts for supervisory control systems.
Diagnoses, calibrates, installs, and troubleshoots analog and digital systems for trunked radio systems, telemetry-based controllers, PLCs and fiber-optic telecommunication systems equipment.

Maintains related on-line and hard copy documentation; supports related hardware and software configurations.

Inspects and assists in troubleshooting new control and communication systems and installations.

Tests, troubleshoots, calibrates and performs diagnostics utilizing a variety of complex electronic test and measurement instruments and equipment.

Isolates and resolves equipment and system failures in the field and in central control; performs bench repairs at the component level in a shop setting; troubleshoots, aligns and calibrates equipment.

Tests solid state circuitry to locate defective parts in analog and digital equipment; replaces defective parts.

Schedules radio support activities with other divisions and departments.

Ensures periodic diagnostic analysis of telecommunications and telemetry equipment.

Requisitions necessary material, equipment and supplies.

Researches new operational methods, techniques and equipment and recommends their application.

Plans and lays out jobs from blueprints, drawings, sketches or verbal instructions; maintains records in the form of blueprints, plans and specifications for instrumentation equipment and devices.

Performs related duties as assigned.

**DESIRABLE MINIMUM QUALIFICATIONS**

**Knowledge of:**

Practices, methods, techniques, tools and equipment used in the design, installation, testing, calibration, maintenance and repair of electronic, process control, supervisory control and telecommunication equipment and devices common to a
large public utility; PLC ladder logic programming; PLC plant control subsystem configuration, diagnoses and support; Telemetry central FIU and RTU configuration, diagnosis and support; RF subsystem configuration, diagnosis and support for voice radio and telemetry radio; operating characteristics of electronic components, including microprocessor controls; programming and development of graphic user interfaces, supervisory control system databases, command language scripts and CAD-like tools; electronic shop procedures and practices; safety practices, safe work methods and safety regulations pertaining to the work; shop mathematics; computer applications related to the work; codes, ordinances and regulations pertaining to the work.

**Ability to:**

Test, diagnose, program, calibrate and repair a wide variety of electronic process control, supervisory control and telecommunication systems and equipment; use modern, state-of-the-art precision and diagnostic instruments, computers and specialized software to test, calibrate and diagnose complex control and telecommunication systems, devices and equipment; identify and implement effective courses of action to complete assigned work; read and interpret plans, specifications and manuals; establish and maintain effective working relationships with those contacted in the course of work; follow and apply written and oral work instructions; communicate effectively, orally and in writing; make sound independent judgments within established guidelines.

**Training and Experience:**

A typical ways of obtaining the knowledge, skills and abilities outlined above is graduation from high school, or G.E.D. equivalent; and two years of journey-level experience in the installation, maintenance and support of complex process control, supervisory control and telecommunication systems, equipment and devices common to a large public utility; or an equivalent combination of training and experience.

**Licenses; Certificates; Special Requirements:**

A valid California driver’s license and the ability to maintain insurability under the District's Vehicle Insurance Policy.
PHYSICAL AND MENTAL DEMANDS

The physical and mental 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 functions.

Physical Demands

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls; and reach with hands and arms. The employee frequently is required to stand and talk or hear; walk or sit; climb and work at heights; stoop, kneel, crouch or crawl.

The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

Mental Demands

While performing the duties of this class, the incumbent is regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; use shop mathematics; observe and interpret situations; deal with changing, intensive deadlines; and interact with officials and the public.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee frequently works outside in a wide range of weather conditions, near moving mechanical parts, and on slippery and uneven surfaces. Employees may, at times, be required to wear appropriate personal protective equipment including respiratory protection while performing work in environments that could have the potential to contain wet or humid conditions, vapors or particulates, hazardous chemicals, and the risk of electric shock. The noise level in the work environment is frequently loud.

FLSA DETERMINATION: Non-exempt.