# SENIOR WATER SYSTEMS TELEMETRY AND DISTRIBUTED CONTROL SPECIALIST

## *Class Definition*

Under general supervision, performs advanced technical work in the administration, maintenance, and operation of computerized distributed control, telemetry, and computer systems.

## *Distinguishing Characteristics*

Senior Water Systems Telemetry and Distributed Control Specialist is an advanced working/lead level class assigned to either the Water or Wastewater Divisions of the Department of Public Utilities.  Incumbents perform complex assignments in the administration, maintenance, and operation of computerized distributed control, telemetry, and other computerized network systems which require extensive technical knowledge, initiative, discretion, and judgment, and provide lead direction to assigned technical staff.  This class differs from Water Systems Telemetry and Distributed Control Specialist in that the latter is a journey level class in which incumbents perform the full range of duties but do not have on-going responsibility for providing lead direction to others.

## *Typical Tasks*

(This list of samples of job duties and responsibilities is neither inclusive nor exclusive. Consequently, this information does not reflect Essential Functions for this class.)

Oversees all division computerized information activities including administration, programming, database administration, telemetry management, and Instrumentation and Control Systems (IC).

Develops policies and procedures for computer operations.

Develops and implements strategies for meeting division short and long term computer-related objectives.

Prepares consulting services agreements and acts as project manager for contract services.

Performs needs assessments, feasibility studies, and provides recommendations.

Designs and oversees development of in-house programming efforts; employs various computer programming languages to upgrade, configure, and debug new control systems, process sequences, telemetry systems, graphic displays, and data management.

Coordinates with Information Systems, consultants, and division management to obtain efficient and effective use of division's computer-related equipment and systems.

Administers the division's in-house computer training programs; coordinates with Information Systems for training outside of the division.

Designs and implements extensions and improvements of the division's automation, Instrumentation, Distributed Control Systems, communication systems, interoperability, and data integration.

Assures adequate inventory of computer-related supplies.

Assures proper installation, operation, maintenance, and upgrade of all division instrumentation and control systems, and computer hardware and software.

Provides lead direction to assigned staff.

Performs related duties as required.

## *Knowledge, Abilities, and Skills*

Considerable knowledge of personal computers, PLC programming, LAN administration, VAX systems, and associated operating systems and environments.

Considerable knowledge of computer based telemetry and distributed control systems.

Considerable knowledge of instrumentation and process control.

Knowledge of fundamental engineering mathematics and statistical analysis methods.

Knowledge of fluid system dynamics as they relate to water/wastewater systems.

Knowledge of LAN configurations, International Electronic and Electrical Engineer (IEEE) communication protocols, telemetry, and distributed control system diagnostics.

Knowledge of Standard Query Language (SQL).

Ability to program in Fortran, Assembly, C or C++, and Xbase compatible languages.

Ability to implement computer-related training programs.

Ability to design and oversee development of software control systems, database applications and front-ends, and communication applications.

Ability to configure and program personal computers, VAX controls, LAN systems, and PLC's.

Ability to prepare clear, concise, and comprehensive records, reports, correspondence, and other written materials.

Ability to establish and maintain effective working relationships with those contacted in the performance of assigned duties.
Ability to provide lead direction to staff.

Skill in the use of computer systems and a variety of application software, such as, spread sheets, data base managers, and word processors.

## *Minimum Qualifications*

Two years of experience as a Water Systems Telemetry and Distributed Control Specialist with the City of Fresno.

**- OR -**

Graduation from an accredited college or university with a Bachelor's Degree in computer science, engineering, water science, or closely related field; and two years of increasingly responsible experience in LAN administration, computer programming, Scada/Telemetry system management, distributed control systems, or Process Control Instrumentation. Additional qualifying experience may be substituted for the required education on a year-for-year basis.

## *Necessary Special Requirement*

Possession of a valid California Driver's License may be required at time of appointment.

APPROVED: *(Signature on file)*          DATE: 06/20/1994
                   Director of Personnel Services

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