

## **JOB DESCRIPTION**

**Systems Control Operator I (Flex)**

**Systems Control Operator II (Flex)**

**Systems Control Operator III**

**Code Number: 32010, 32011, 32022**

## **GENERAL PURPOSE**

Under general supervision, analyzes system demands and abilities; controls, operates, monitors, and performs operational changes to storage, treatment and distribution of potable and reclaimed water; and performs related duties as required.

## **DISTINGUISHING CHARACTERISTICS**

Systems Control Operator I is the entry-level class in the Systems Control Operator series. Initially under immediate supervision, incumbents learn to perform a wide variety of duties in the analysis, control, operation, and coordination of water and reclaimed systems. As experience is gained, duties become more diversified and are performed under more general supervision. The class is alternately staffed with Systems Control Operator II / III, and incumbents may advance to the higher level after gaining experience and demonstrating proficiency which meet the qualifications of the higher level.

Systems Control Operator II is the journey level class in the series, fully competent to independently perform duties. This class is distinguished from the lower classification of Systems Control Operator I by the relative independence with which duties are performed. Systems Control Operator III is the advanced journey level in the series, fully competent to independently perform duties. This class is distinguished from the two lower classifications of Systems Control Operator I & II by the relative independence with which duties are performed as well as the range of knowledge and experience in class, and the ability to fill in for the Systems Control Supervisor in his absence.

Employees in this classification are subject to on-call, which may include rotating-duty schedule, weekends and 24-hour emergency call out with little or no notice. Any employee designated to serve on-call who repeatedly refuses to serve on-call, or report for emergencies, shall be subject to disciplinary action up to and including discharge.

## **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 this class.*

Operates water production, storage and distribution facilities via SCADA; regulates water flow throughout the system using control valves, pumping stations and electronic and computer controlled systems (SCADA); evaluates system status via SCADA; operates pumps, valves and related equipment.

Operates and monitors water reclamation equipment, facilities and systems, using electronic and computer-controlled systems (SCADA); evaluates all plant SCADA screens to confirm all related telemetry signals are functional and correct.

Operates and monitors water and wastewater systems and controls pump stations during scheduled and emergency shut downs; maintains flow using booster pumps to control water level in reservoirs and at other critical points throughout the system.

Makes recommendations for upgrades and continuous improvements on all departmental responsibilities, procedures, processes, reports, and assignments.

Implements changes in the system's operation strategies, accommodates fluctuation in usage and adjusts selected reservoirs and pumping stations.

Coordinates water orders and shutdowns with other agencies; analyzes and orders water flows from MWD.

Operates and monitors water flow in the distribution system and reports flow changes to MWD personnel at Mills, Skinner or Eagle Rock control rooms in accordance with their operating parameters; keeps records of all water orders.

Notifies field personnel in the operations of distribution systems.

Evaluates distribution system components and facilities to ensure efficient functioning; minimizes interruptions to the distribution; evaluates the need for major or specialized repairs to equipment, machinery and electrical and electronic system, and to reduce energy consumption; makes adjustments to reservoir and pump settings; coordinates facilities shutdown so that specialized trades personnel may make major and/or highly technical repairs to equipment, machinery and systems; ensures the timely completion of preventive maintenance activities with no or minimal service interruption.

Interprets screens, gauges, meters, charts and graphs, and operates pumps, valves, electric motors and related equipment to regulate flows.

Controls and monitors systems; controls valves for emergency and scheduled shut down; maintains flow using booster pumps to control water levels in reservoirs and at other critical points throughout the system; troubleshoots, diagnoses and corrects control system malfunctions by resetting relays and adjusting other controls and components.

Monitors water quality parameters throughout the system.

Prepares daily water production and weekly reclaimed water production reports.

Evaluates display screens to verify functionality and accuracy of telemetry signals, evaluates pump plants and sets pump rotation sequence and set points; implements District's goal of water supply source and energy efficient operation; ensures compliance with production restrictions specified by agreements; ensures adequate and appropriate water quality and that reclaimed water is available and delivered and ensures maintenance and updating of district-wide operational plans.

Prepares daily and monthly reports for inclusion in the "Discharge Monitoring Report" and ensures compliance with appropriate uses of reclaimed water; reports and monitors blending of different sources of reclaimed water.

Monitors and coordinates checking of chemical alarms and feed system for leaks; reports equipment, machinery and facilities failures to the proper personnel; prepares trend plots of various system parameters.

Responds by telephone and radio to inquiries and complaints from customers and others regarding water quality, water pressure, and loss of service, delinquent bills and related matters.

Manages energy (SOP and TOU) usages; recommends and implements energy-saving schemes by prioritizing pumps.

Manages Energy Management Software (Derceto) to operate the District's Potable Systems. Systems Control Operator III would be expected to be at "Champion Level" or "Engineer Level" for Derceto.

Enters and records data; prepares data spreadsheets and regular and special reports.

Trains and assists other personnel in the operation of the SCADA system; provides recommendation to SACDA staff for program development.

Prepares and follows up on repair orders.

Assists other District personnel and coordinates District response to emergencies, including requests from other public utilities and agencies for line and facility locations, and notifies proper District staff.

Coordinates District work with other District Departments and agencies to minimize service disruptions.

Researches new monitoring, control and energy efficient operational methods, techniques and equipment and recommends their application.

Submits requisitions for necessary tools, equipment and supplies.

Maintains a variety of records and logs; prepares production and system status reports; updates written manuals and instructions; prepares District's water demand and supply reports that supply data for the District's Dashboard projects daily.

May fill in for the System Control Supervisor in the Supervisor's absence.

Conducts control room tours, explaining system operations to visitors.

Operates vehicle to travel to various District facilities.

Performs related duties as assigned.

## **DESIRED MINIMUM QUALIFICATIONS**

### **Knowledge of:**

Principles, methods and techniques for operating computers, SCADA screens and applications, pumps, valves, electric motors, diesel and natural gas engines and electronic, computerized and manual control systems; functions and servicing requirements of the equipment used in a potable water distribution system; principles, methods, practices and techniques utilized in chemical, bacteriological and biological analyses; relevant federal and state laws and regulations; computer applications related to the work, including modern, state-of-the-art supervisory control and data acquisition systems; safe work methods and safety regulations pertaining to the operations of a potable water distribution system.

### **Ability to:**

Operate a variety of pumping, treatment and control equipment and machinery; accurately read and interpret meters, gauges, valve books, blueprints and schematic drawings, make mathematic calculations, including metrics; establish and maintain effective relationships with those encountered in the course of the work; work independently and exercise sound judgment in performing assignments; operate a computer utilizing various software tools; understand and follow oral and written instructions; prepare basic records and reports of work performed; operate and maintain tools pertaining to the work; safety practices and procedures pertaining to the work; plan, organize, schedule, lay out and complete assigned work; communicate effectively, orally and in writing; make sound independent judgments within established guidelines; operate computer and various software packages; principles and practices of employee supervision and training.

### **Training and Experience:**

A typical way of obtaining the knowledge, skills, and abilities outlined above is graduation from high school or G.E.D. equivalent; and one year of experience as an operator with a large potable water distribution system; or an equivalent combination of training and experience.

Systems Control Operator I may be considered for advancement to Systems Control Operator II after demonstrating proficiency in performing the full range of support functions assigned to this class, and is expected to be capable of meeting the proficiency criteria within a 12 - 24 month period, depending on an individual's prior experience and progression in performing the full range of Systems Control Operator duties as described in the established performance criteria.

Systems Control Operator II may be considered for advancement to Systems Control Operator III after demonstrating proficiency in performing the full range of support functions assigned to this class, and is expected to be capable of meeting the proficiency criteria within a 12 - 24 month period, depending on an individual's prior experience and progression in performing the full range of Systems Control Operator II duties as described in the established performance criteria.

### **Licenses; Certificates; Special Requirements**

A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.

Systems Control Operator I - A State of California Water Treatment Operator Certificate, Grade II and a State of California Water Distribution System Operator Certificate, Grade II.

Systems Control Operator II - A State of California Water Treatment Operator Certificate, Grade II and a State of California Water Distribution System Operator Certificate Grade III.

Systems Control Operator III - A State of California Water Treatment Operator Certificate, Grade II and a State of California Water Distribution System Operator Certificate Grade IV.

## **PHYSICAL AND MENTAL DEMANDS**

*The physical and mental demands described here are representative of those that must be met by employees 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 class, employees are regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee is frequently required to stand and talk or hear; walk; sit; climb or balance; stoop, kneel, crouch or crawl. 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, employees are regularly required to use oral and written communications skills; read and interpret data, information and documents; analyze and solve problems; observe and interpret situations; use math and mathematical reasoning; learn and apply new information or skills; interact with District staff, other organizations 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.*

While performing the duties of this job, employees are confined to the assigned work station most of the time which is staffed 24 hours a day 7 days a week. The noise level in the work environment is moderately quiet.

During field trips and inspection tours, employees may be exposed to wet or humid conditions, vibration, fumes and airborne particles, toxic or caustic chemicals, and the risk of electrical shock.

**FLEX REQUIREMENTS**  
**Systems Control Operator I (Flex)**  
**Systems Control Operator II (Flex)**  
**Systems Control Operator III**

**LENGTH OF TIME REQUIRED**

A Systems Control Operator I may advance or “flex” to the Systems Control Operator II class after **12-24 months** of experience in the Systems Control Operator I class.

A Systems Control Operator II may advance or “flex” to the Systems Control Operator III class after **12-24 months** of experience in the Systems Control Operator II class.

**PERFORMANCE RATING**

The incumbents must receive an overall performance rating of “good” or better on their most recent annual performance evaluation in order to flex to the higher class.

Incumbents must “pass” a Systems Control I exam to flex to the Systems Control II position.

**COMMENTS**

The Systems Control Operator I must also demonstrate proficiency to perform the full range of duties as described in the Systems Control Operator I/II/III job description. This includes demonstrating full knowledge of the District’s water and sewer systems, and possessing the required certifications for the level being flexed to.

In addition, incumbents must pass a level-appropriate proficiency test in order to flex up to the higher level.