HRSD
Position Description: Instrumentation Specialist

Section I. Position Reference Information

a.	Department	Operations
b.	Division	Facility Support/Electric Shop
c.	Position Title	Instrumentation Specialist
d.	Immediate Supervisor	Instrumentation Supervisor
e.	Work Center	North/South Shore
f.	Grade	7

Section II. Position Summary

Under broad guidance, the Instrumentation Specialist is responsible for:

a. Providing instrumentation and control services, including planning, design, repair, and maintenance to HRSD Departments
b. Providing installation, repair and maintenance of security systems and electric/electronic lab equipment
c. Troubleshooting and serving as a resource for instrumentation and control issues

Section III. Examples of Position Duties

a. Designs, plans, installs, replaces, repairs, maintains and provides documentation and schematics for all systems and equipment associated with automated process control at all HRSD treatment plants and pump stations
b. Repairs electric / electronic laboratory equipment and other stand alone devices at the Main Office and Central Environmental Lab
c. Installs and maintains security systems, (and door / gate security devices), and pump station SCADA systems at all HRSD locations
d. Performs programming, calibration and maintenance of instrumentation and control systems and instruments including DCS (Distributive Control Systems), SCADA (Supervisory Control and Data Acquisition), and Master Metering Program
e. Partners and collaborates with other HRSD departments and staffs; assesses needs for services and develop work plans; participates on new design teams as requested
f. Continually looks for ways to improve the performance of operating processes and to maximize the use of limited staff resources and talents
g. Interprets and applies HRSD Mission, Vision, and Values to the Instrumentation function
h. Communicates regularly with instrumentation team and other work partners, and Instrumentation Supervisor informally, in writing, one-on-one, and in meetings
i. Recommends improvements to equipment, processes, work methods and procedures
j. Prepares and maintains records and reports as required
k. Troubleshoots instrumentation problems
l. Develops staff skills for current position and future career opportunities; trains operations staff to fully utilize automated systems
m. Continues to build own technical and leadership skills
n. Performs other duties as assigned

Section IV. Position Contacts

a. Standing Committees, Boards, and Organizations

1. Required

Member – Division / Work Center Quality Steering Team (QST)

2. Desired – some positions in this job group are assigned to be on the following teams

a) Member –Distributive Control System Team
b) Member – Functional Descriptions
c) Member – HRSD Standards Team (graphics)

b. Internal Contacts

Contact	*Purpose*	*Frequency*
Treatment Plant Managers	Coordination of DCS modification requests, job planning, budget review	Weekly
Instrumentation Supervisor	Discuss schedule, and troubleshoot problems	Daily
Interceptors	Update on system readiness and joint work efforts. Information exchange on MMP site maintenance, joint work efforts	Daily
Operators/Lead operators	Communication of instrumentation problems; troubleshooting equipment or system malfunction; operator training for newly installed instruments; operational details; budget preparation; job planning	Daily
All Electrical Staff	Information exchange, schedule joint work effort	Daily

c. External Contacts

Contact	*Purpose*	*Frequency*
Various consultants/contractors	System improvement/upgrade/material, new equipment pricing and status	Monthly
Equipment Manufacturers Technical Personnel	Repair, maintenance and troubleshooting assistance regarding equipment purchased	Bi-monthly
Engineers	Troubleshooting assistance for instrumentation problems, application design issues	Semi-annually

Section V. Position Accountabilities and Expectations

a. Compliance –All electrical code, building code, NEC, FCC, HRSD policy/procedures, and legal requirements are followed 100% of the time

b. Financial – Budgets are in alignment with HRSD budget projections and timelines, and are effectively controlled

c. Process – Downtime due to assigned systems problems and new installations is minimal; assigned new equipment/systems are installed and operational within stated timeframes; preventive maintenance of automation and controls is provided as scheduled; accurate information is provided by instrumentation systems

d. Human Resources Management – Knowledge is shared in order to develop "bench strength" in the instrumentation function; employees are trained and developed to take on more responsible roles; training and development is visibly supported

e. Customer Satisfaction – Zero customer complaints; timeliness of response to emergency situations; schedules are provided to customers/partners within a timely manner

f. Timeliness – Meets deadlines for reports and procurement orders; provides timely responses to emergency situations, and to customers (internal and external)

g. HRSD Competencies – Consistently demonstrates HRSD Universal Competencies

Section VI. Working Conditions

a. Must be able to work in a team-oriented culture
b. Must work in varying climatic conditions outdoors
c. Must be available to work overtime and non-day shifts as needed, serving as scheduled in "on-call" status
d. Work involves exposure to and handling of hazardous materials, routinely exposing employee to wastewater

Section VII. Physical Requirements

a. Must have the physical dexterity to accomplish the duties defined herein
b. Must have the ability to lift, climb, walk and stand for over 50% of time
c. Must be able to identify colors
d. Must be able to lift loads (20 – 50 pounds)
e. Must be willing to work in OHSA designated noise environments (> 85 decibels)
f. Must be medically certified to wear a respirator for up to half an hour
g. Must have ability to enter and maintain confined space entry

Section VIII. Other

a. Medical certification of physical requirements listed above may be required
b. Must be currently authorized to work for any U.S. employer

Section IX. Qualification Standards

a. Education
    Required
        Associate of Applied Science (AAS) in Instrumentation Technology, Electro-mechanical, or Electronics
b. Experience
    1. Required
        a) Minimum of 4 years technical experience in the instrumentation and electronics field
        b) Record-keeping experience to include documentation of preventive maintenance and work logs
    2. Desired
        a) Experience within the wastewater treatment industry, gaining knowledge of how the process of treating wastewater takes place and the structure of the plants and pumping stations
        b) Experience in planning work, budgeting
        c) Completion of HRSD apprenticeship program

c. Training Levels

This position is fully qualified at a Grade 7 with an Associate's Degree in the appropriate field and 4 years of experience in the instrumentation trade or successful completion of HRSD's apprenticeship program. For personnel who are not fully qualified the following training levels have been established:

Grade 7a - Degree and 3 years experience or successful completion of 3rd year apprenticeship program

Grade 7b - Degree and 2 years experience or successful completion of 2nd year apprenticeship program

Grade 7c - Degree and 1 year experience or successful completion of 1st year apprenticeship program

Grade 7d - Degree and no experience

d. Job-specific Technical Competencies

Required

a) Knowledge of electrical, mechanical and preventive instrumentation and control systems and applicable codes in order to plan, install, maintain and repair process control instrumentation devices and systems
b) Ability to read and interpret instrumentation and control wiring diagrams
c) Working knowledge of all types of flow meters, all types of pressure measuring devices, all types of temperature measuring devices, all types of analytical measuring devices such as (pH, Cl2, SO2, LEL, H2S, NH3 and others), computer operating systems such as PLC, DCS, SCADA and network devices
d) Ability to troubleshoot, solder, draft and design, work with hands, use meters and power tools of any kind, and perform metal fabrication, pipe fitting, and tube bending
e) Knowledge of electronic technology, rudimentary physics, fabrication techniques, different types of instrumentation, working knowledge of state of the art computers and electrical technology
f) Extensive knowledge of regulations and safety procedures that apply to the instrumentation field, and working knowledge of the HRSD department where work is being performed
g) Ability to document work performed and maintain work logs and preventative maintenance schedules
h) Knowledge of procurement and quality improvement processes
i) Proven skill in listening and sustaining HRSD values
j) Communication Skills, ensuring that project status is shared with all stakeholders
k) Ability to use MS Office products and a variety of other industry-specific programs at an advanced level of proficiency

e. Special Licenses

Required

Valid Driver's License from state of residence