

<b>CITY OF CEDAR RAPIDS POSITION PROFILE</b>	<b>JOB CODE #/TITLE:</b> NB448 Utilities Process Control Specialist
<b>POSITION #/TITLE:</b> 0389, 0665 Utilities Process Control Specialist	<b>Adopted:</b> 11-11
	<b>Revised:</b>

**POSITION DESCRIPTION**

<b>Dept /Division:</b> Utilities/Water & Water Pollution Control	<b>Manager Level:</b> Program Administrator
<b>Salary Plan/Description:</b> NBU/Non-Bargaining Unit	<b>Salary Grade:</b> 13
<b>Reports To Position #/Job Code #/JC Title:</b> 230/NB190/Water Utility Plant Manager or 2431/NB373/WPC Plant Manager	<b>Dotted-line Reports To Position #/Job Code #/JC Title:</b>
<b>FLSA Status:</b> Exempt	<b>City Overtime Status (Employee Type):</b> Exempt (Salaried)
<b>Physical Demand Rating:</b> Light	<b>Work Environment:</b> Controlled
<b>Pre-employment Testing:</b> Drug and health screening after contingent offer.	<b>Position Testing:</b> Written knowledge test; Skills test.
<b>Personal Protective Equipment:</b> Eye, Head, Foot, Hearing, Gas Monitor, Respirator	

**General Statement of Duties**

Maintains, modifies and monitors the Water Plant or Water Pollution Control Plant and facilities operational processes, supervisory control and data acquisition, and programmable logic control systems. Emphasis is on process system controls. Administers facility access control and monitoring systems for Water Pollution Control facilities. Performs related work as required.

**Distinguishing Features of the Class**

Considerable leeway is granted for the exercise of independent judgment and initiative. Utilities Process Control Specialist may provide work direction in analysis of systems procedures.

**Examples of Essential Work (Illustrative Only)**

Plans, designs and develops new or replacement PLC's, analog controls and computer logic for Water Plant or Water Pollution Control Plant processing equipment;  
 Implements control process policies and procedures for the Water Plant or Water Pollution Control Plant system critical processes, start-up, shut down, maintenance, training and operation;  
 Coordinates and plans scheduled shutdown activities including coordination of maintenance and laboratory function for repair or upgrade of process control systems;  
 Administers operation, maintenance, and future improvements of access control and video monitoring system at the Water Plant or Water Pollution Control Plant facilities including time settings, access permissions, and related functions;  
 Assists with design of automated control systems, including reviewing design specifications, preparing cost estimates, project management and reviewing shop drawings, wiring diagrams, writing Programmable Logic Control programs (PLC's), and reviewing related manuals;  
 Maintains Access Policy for site access to Water Pollution Control Plant;

Trains operators and supervisors in processes and process control of Water Plant or Water Pollution Control Plant and facilities;

Monitors plant SCADA system performance, troubleshoots related process and equipment malfunctions and directs necessary corrections;

Assists City's IT department with maintaining SCADA systems, databases, software, hardware, communication networks and the PLC fiber optic system;

Coordinates network related support through the City's Information Technology Operations group;

Establishes methods and protocols for implementing, tracking, and correcting all changes to the SCADA system, and ensures protocols are being followed properly;

Evaluates control project design and monitors for completeness of specification requirements in electrical and electronic controls;

Develops, implements and supports process control and monitoring software programs;

Monitors, programs and maintains PLC controls for automated equipment;

Researches innovations and new applications in automated control systems and identifies service needs for Division;

Performs routine maintenance and emergency repair on facilities control systems to restore control;

Creates, updates and maintains graphic libraries for the SCADA system;

Develops protocols and maintains system of archiving and redundancy for SCADA system data, programming, and equipment;

Follow city's purchasing procedures and oversees related expense accounts;

Administers external service level agreements to include on-site support, software or other technical support;

Assists Plant management group in setting work priorities for the Telemetry and Electrical shop;

Reviews plans and provides recommendations to Utilities Engineering group;

Coordinates daily maintenance requirements with maintenance personnel;

Performs all work duties and activities in accordance with City policies, procedures and safety practices;

Supports continuous process improvement initiatives;

Performs related work as required.

<b>Required Knowledge and Abilities</b>
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Thorough knowledge of process control systems and supervisory control and data acquisition (SCADA) systems;

Thorough knowledge of programmable logic controller (PLC) programming, including knowledge of PLCs;

Thorough knowledge of communications systems, including radio, phone, fiber optics, and LAN/WAN;

Good knowledge of or ability to learn, the process control and SCADA functions and operations for the City's Water or Waste Water systems;

Good knowledge of access controls and camera security systems and relevant technology;

Good knowledge of electrical power and motor control systems;

Ability to train others in the use of computer operations and software applications;

Ability to read and interpret computer manuals, engineering specifications, blueprints and plans;

Ability to communicate effectively and maintain working relationships with managers, other City employees, consultants, contractors, outside vendors and the public;

Ability to prepare accurate and reliable reports containing findings, recommendations and conclusions on computer operations and software applications;

Ability to coordinate the work of others;

Ability to structure departmental automated control computer operations to serve the needs of Water or Waste treatment systems;

Ability to operate a personal computer using program applications appropriate to assigned duties and responsibilities;

Ability to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;  
Ingenuity and inventiveness in the performance of assigned tasks.

### **Acceptable Experience and Training**

Graduation from an accredited college or university with a Bachelor's Degree in electronics, electrical, mechanical or industrial engineering, or a closely related field; and  
Considerable experience in electronic and electrical control installation and maintenance of hardware and software in an industrial plant environment; or  
Considerable experience working with programmable logic control (PLC), motor control, and supervisory control and data acquisition (SCADA) systems, with experience in Allen-Bradley PLC's and Rockwell Automation software systems preferred; or  
Any equivalent combination of experience and training which provides the knowledge and abilities necessary to perform the work.

### **Required Special Qualifications**

Valid Iowa Driver's License upon appointment.

### **Essential Physical Abilities**

Sufficient clarity of speech and hearing, with or without reasonable accommodation, which permits the employee to communicate effectively;  
Sufficient vision, with or without reasonable accommodation, which permits the employee to prepare detailed printing materials, and to read a wide variety of materials;  
Sufficient manual dexterity, with or without reasonable accommodation, which permits the employee to operate a computer keyboard and other computer related equipment;  
Sufficient personal mobility, with or without reasonable accommodation, which permits the employee to work in the general office environment and visit other work sites in the City.