



City of Ames W&PC Control Systems Specialist

SALARY	\$35.82 - \$52.37 Hourly \$74,506.43 - \$108,926.48 Annually	LOCATION	50010, IA
JOB TYPE	Full-Time	JOB NUMBER	25-5304-01
DEPARTMENT	Water & Pollution Control	OPENING DATE	12/05/2025
CLOSING DATE	1/2/2026 12:00 PM Central	FLSA	Non-Exempt
BARGAINING UNIT	MERIT	RESIDENCY REQUIREMENT?	No

Centrally located in the heart of Iowa, Ames is a vibrant, progressive community with more than 66,000 residents providing an excellent quality of life. Home to Iowa State University, Ames offers year-round recreation opportunities, diverse cultural offerings, a stable economy, safe neighborhoods, and a high-achieving school district.

General Information

<https://www.youtube.com/embed/97rsAGfo1eQ?&wmode=opaque&rel=0>

The City of Ames is conducting a recruitment to establish a Civil Service eligibility list for this classification. The list will be valid for up to one year from the date of certification by the Ames Civil Service Commission and may be used to fill one or more vacancies in this classification. In addition, City of Ames Civil Service employees who have previously held Civil Service status in this classification and are interested in voluntarily demoting or laterally transferring into the current vacancy must submit their application by the deadline.

Under the general supervision of the Assistant Director of Water & Pollution Control as part of the Administrative Division, this position performs specialized technical work involving the design, implementation, programming, maintenance, and troubleshooting of Supervisory Control and Data Acquisition (SCADA), Programmable Logic Controller (PLC), Human-Machine Interface (HMI), and telemetry systems. These systems serve the City's water and wastewater utilities including treatment plants, wells, pump stations, elevated tanks, lift stations, and river and stream gauges. This position will interact directly and coordinate with the Superintendents and Assistant Superintendents of the Water Treatment Plant and Water Pollution Control Facility. As a vital member of the Department's technical support team, this position ensures the secure and efficient operation of critical infrastructure, with a strong emphasis on

safeguarding SCADA systems from physical and cyber threats. Performs other duties as assigned.

In order to be considered for this position, all applicants must submit their online application by the deadline listed on this posting. Your application includes complete responses to the supplemental questions. Please keep in mind that submission of a resume in lieu of work history on your application or answering the supplemental questions is not sufficient.

Compensation Philosophy:

The City of Ames has a compensation philosophy for our merit salary ranges that provides growth for employees as they gain experience and expertise in their roles. The minimum pay of each range is intended to reflect an employee's qualifications that meet the position's minimum requirements. The median of any range is for an employee who can reasonably meet all expectations of the position responsibilities without initial or extensive training. The City may consider a candidate's education, experience, and skills that are above the minimum requirements when considering a salary closer to the median. The median salary for this position is \$91,716.

Benefits

Our comprehensive benefits package can be viewed at: [City of Ames Benefits](#)

Public Service Loan Forgiveness (PSLF) Program: The PSLF Program is a federal program that is intended to encourage individuals to work in public service by forgiving the balance of their federal student loans. To qualify, the individual must have made 120 qualifying payments while employed by a qualifying employer. For more information, please visit: [PSLF Program](#)

Examples of Essential Job Functions

Oversees the overall operations and maintenance of the SCADA systems for the Water Treatment Plant and Water Pollution Control Facility. Plans, designs, installs, configures, monitors, upgrades, and troubleshoots a variety of instrumentation and controls. Installs and configures new or relocated HMI workstations, thin clients, and other interface devices. Develops, modifies, and troubleshoots ladder diagrams and control logic. Implements and maintains security measures for the Operational Technology (OT) systems consistent with industry best practices. Performs control system software upgrades per manufacturer's guidelines. Writes and modifies HMI graphic codes; configures and manages database for plant historian; creates and modifies data reporting systems; configures and maintains SCADA system backups. In conjunction with other maintenance staff, diagnoses and resolves issues with motor controllers, variable frequency drives, soft starts, and valve actuators. Programs, calibrates, and trouble-shoots in-line analytical equipment such as chlorine analyzers, dissolved oxygen probes, turbidity meters, etc. Configures and maintains radio telemetry and fiber optic systems for in-plant and remote site communications. Reads and interprets blueprints, wiring diagrams, and schematics. Maintains technical manuals, drawings, sketches, schematics, and diagrams for electronic and controls equipment. Maintains security camera and access control systems to maximize "uptime" and safeguard the utility's critical infrastructure. Collaborates with plant Superintendents to review the performance of the SCADA systems ensuring the systems are generating precise and accurate reports.

Maintains a variety of radio, telephone, and fiber communication links. Maintains, updates, modifies, and troubleshoots SCADA applications including displays, trends, alerts, and reports. Prepares and maintains thorough technical and functional documentation for system operations, procedures, alarms, and controls, including as-built drawings, single line drawings, wiring and data cabling drawings, repair histories, schematics, and programming code. Assists system users in using controls systems and accessing data. Coordinates with vendors, integrators and engineers for larger projects assisting with construction oversight. Provides staff trainings on SCADA system use, troubleshooting, and following proper cybersecurity practices. Maintains knowledge of industry trends and best practices in order to propose

solutions to improve the process control and infrastructure. Maintains software licenses specific to the Water and WPC facilities.

Other Functions:

Assists in reviewing construction plans and specifications. Assists with preliminary design studies, including development of project scope and the preparation of accurate cost estimates. Checks plans and specifications to ensure compliance with pertinent codes and accepted practices. Conducts tours and presentations; responds to inquiries and resolves complaints from contractors, vendors, regulatory agencies, and citizens. Helps maintain flood watch field equipment.

Work is generally performed during the day shift, Monday through Friday, however there may be occasional periods when work outside the regular hours is required.

Each employee is expected to continually strive to bring shared values to life through our Excellence Through People organizational culture. ETP values include: committing to continuous improvement; inspiring creativity and innovation; being customer driven; making data-driven decisions; championing employee involvement; striving for excellence; having fiscal stewardship; acting with honesty and integrity; exhibiting leadership; choosing a positive attitude; respect and dignity for one another; promoting safety and wellness; and cultivating teamwork. For leaders, this includes creating a work culture that brings these values to life. For all employees, this includes maintaining a Total City Perspective. The purpose of ETP is to deliver exceptional services to the public at the best price, and for employees to experience an enjoyable and stimulating work environment.

Qualifications

Education and Experience:

Minimally qualified candidates will possess an associate degree in one of the following fields: computer science, information technology, industrial automation, PLC programming; or control systems engineering; or a closely related degree; *PLUS* a minimum of two years of practical experience in SCADA systems, process control, PLC programming and/or HMI development, with an emphasis on industrial control systems. Or, an equivalent combination of education and experience.

Preferred candidates will possess at least one of the following *PLUS* the experience listed above: a bachelor's degree or higher in one of the fields listed above; at least one year of controls experience work in a water/wastewater facility; or IT related experience in an industrial facility or the industry.

Licenses and Certifications:

Possession of a valid driver's license is required at the time of appointment and must be maintained throughout tenure in the position.

State of Iowa Grade I Water Treatment (WT I) and Wastewater Treatment (WW I) Operator's Certificate required within 24 months of appointment.

Preferred: Industry certifications such as Certified Automation Professional (CAP) or International Society of Automation (ISA) certification as a Certified Control Systems Technician (CCST).

Knowledge, Skills, and Abilities:

Considerable knowledge of the principles and practices of SCADA, HMI, and PLC design, configuration, and implementation, including the application of that knowledge to water and wastewater treatment processes.

Considerable knowledge in the development, implementation, and security of operational technology (OT) control systems, ensuring the integrity of network and database administration within water treatment and wastewater facilities. Knowledge of industry standard methods and techniques of developing and enforcing system security best practices, especially to safeguard SCADA systems. Knowledge of network and database administration. Knowledge of the fundamental operational characteristics of water treatment, water distribution, sewer collection, and wastewater treatment facilities.

Advanced skill in troubleshooting SCADA software, programming and control systems configuration, ensuring systems are robust and secure. Skill in the safe use of equipment and in working in water and wastewater utility infrastructure.

Skill in the use and application of a variety of test equipment and instruments. Skill in programming and documenting control systems. Skill in performing mathematical calculations such as formulas, percentages, and proportions. Skill in the use of Microsoft database and spreadsheet applications to support system management and reporting.

Proven ability to implement and maintain secure SCADA networks, including intrusion detection and vulnerability management. Ability to optimize process control systems for efficiency and safety. Ability to design, develop, program, and implement new, enhanced, or modified SCADA, PLC, and other control systems. Ability to troubleshoot SCADA software, programming, reporting, alarming, and databases issues, while implementing robust security measures to protect against cyber threats. Ability to troubleshoot and diagnose issues with communication systems including voice, data, video, fiber optics, and other network components. Ability to train other employees on new or modified control system applications, performing basic control system troubleshooting, electrical safety, and best practices for system security. Ability to accurately prepare documentation of control system architecture, configuration, and changes. Ability to work independently, solve complex problems, manage work schedule, and prioritize job assignments. Ability to establish and maintain productive work relationships with other staff, vendors, contractors, consultants, and customers.

Proficient ability to understand and follow technical instructions in both oral and written forms, including interpreting complex technical documentation such as schematics, network diagrams, and cybersecurity frameworks. Ability to communicate effectively with all levels of individuals on technical topics.

Supplemental Information

Examples of Equipment Used on the Job:

A variety of information technology (IT) and operational technology (OT) hardware and software such as computers, monitors, printers, word processors, spreadsheets, databases, graphical interfaces, network switches, and specialized operational control software; light vehicle; communications equipment including telephone, two-way radio and intercom; general office equipment; a variety of printed materials such as equipment operation and maintenance manuals, blue prints, technical specifications, circuit drawings, and wiring diagrams; a variety of measurement and diagnostic tools and equipment; a variety of general purpose power tools, hand tools and maintenance equipment; a variety of safety equipment and clothing; electronic test equipment such as data network analyzers.

Required Physical Activities: Climbing, balancing, stooping, kneeling, crouching, crawling, reaching, standing, walking, pushing, pulling, lifting, finger dexterity, grasping, feeling, talking, hearing, repetitive motions.

Physical Characteristics of Work: The work involves sitting approximately 40 percent of the time; sitting or standing and using arm/leg controls approximately 40 percent of the time; standing (but not walking) 10 percent of the time; standing and walking 10 percent of the time; frequently lifting objects under 10 pounds; routinely lifting objects from 10 to 25 pounds; infrequently lifting objects from 25 to 50 pounds; and infrequently lifting objects over 50 pounds.

Vision Requirements: The minimum standard for use with those whose work deals largely with preparing and analyzing data and figures, working from prints and drawings, reading, working at a computer terminal, visual inspection

involving small defects or parts, use of measurement devices or assembly of parts at distances close to the eyes. Ability to accurately discern colors.

Environmental Conditions: The work is performed both indoors and outdoors and may occasionally include being exposed to extreme heat and cold, noise, vibration, heights, confined spaces, oils and greases, poor lighting conditions, mechanical hazards, electrical hazards, chemical hazards, or atmospheric conditions that may affect the respiratory system or skin.

Selection Process:

Candidate applications directly submitted to this recruitment will be vetted through a recruitment agency, working on behalf of the City of Ames. If you apply for this position directly to our posting, you will be redirected to the recruitment agency for initial conversations.

The selection process consists of an evaluation of education and experience, virtual interview, hiring assessment, on-site interview which will include a manager meeting and written exercise, and completion of a criminal background check, which includes a sex offender registry check. All candidates will be notified by email of their application status.

****Preference may be given to applicants possessing qualifications above the minimum.****

Depending on the number of qualified candidates, the City may forego virtual interviews.

Veteran's Preference Points

The City of Ames provides Veteran's Preference Points for Civil Service positions. A copy of your DD214 and, if applicable, proof of disability, must be attached with your application (or faxed to 515-239-5297) prior to the close date of the posting in order to receive Veteran's Preference Points.

E-Verify Process:

The City of Ames participates in E-Verify and will provide the Social Security Administration (SSA) and, if necessary, the Department of Homeland Security (DHS), with information from each applicant's Form I-9 to confirm work authorization. All candidates who are offered a position with the City of Ames must complete Section 1 of Form I-9 along with the required proof of their right to work in the United States and proof of their identity on their first day of employment. Please be prepared to provide required documents on your first day of employment. For additional information regarding acceptable documents for this purpose, please contact Human Resources at 515-239-5199 or go to the US Citizenship and Immigration Services web page at: <http://www.uscis.gov>.

NOTE: Applicants with disabilities may submit requests for ADA testing or interview accommodations to the Human Resources Department prior to the test or interview.

The City of Ames is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, creed, age, religion, sex, sexual orientation, gender identity, genetic information, ancestry, national origin, marital status, disability, or protected veteran status and will not be discriminated against. Inquiries can be directed to the Human Resources Department at 515-239-5199.

Employer

City of Ames

Address

515 Clark Ave

Ames, Iowa, 50010

Phone

515-239-5199

Website

<http://www.cityofames.org/jobs>

W&PC Control Systems Specialist Supplemental Questionnaire

*QUESTION 1

Please let us know why you are interested in this position with a public employer, such as the City of Ames.

*QUESTION 2

Please briefly describe any work experience you have in either water or wastewater treatment facilities.

*QUESTION 3

Please provide a description of any continuing education you've received in the field of industrial controls and instrumentation.

*QUESTION 4

Please describe your experience with SCADA software.

*QUESTION 5

Please describe any other experience you have with lighting, security access, or HVAC control systems.

*QUESTION 6

Do you have a valid driver's license?

- ☐ Yes
- ☐ No

*QUESTION 7

Do you currently possess a State of Iowa Grade 1 Water Treatment Operator's Certificate? Answering "no" will not disqualify you for this recruitment as we will allow newly hired employees up to 24 months to obtain this certification.

- ☐ Yes
- ☐ No

*QUESTION 8

Do you currently possess a State of Iowa Wastewater Treatment 1 Operator's Certificate? Answering "no" will not disqualify you for this recruitment as we will allow newly hired employees up to 24 months to obtain this certification.

- ☐ Yes
- ☐ No

* Required Question