

# Jefferson County Commission, Birmingham Alabama

## Automation and Controls Engineer

Job Open Date

02/25/2018

Resumes may be emailed to Valarie Nealey@ [nealeyv@jccal.org](mailto:nealeyv@jccal.org). Additionally, you can apply at [www.jobsquest.org](http://www.jobsquest.org).

### Necessary Qualifications

The following Minimum Qualifications are required for this job. You must demonstrate possession of these qualifications by providing a detailed description of your related experience in the work history section of your application. Please note that replicating or restating these minimum qualifications or the information from the Personnel Board's job description as your own work experience will result in your disqualification. Please describe your work experience in your own words to represent the work you have performed that is related to the minimum qualifications for this job.

- Valid Driver's License
- Bachelor's degree, or higher, in Electrical Engineering, Computer Engineering, or other Engineering discipline with a focus in Process Control/Automation Systems.
- Work experience developing, deploying and maintaining standard and custom programming and configuration code for the automation & process control systems.
- Work experience designing or modifying graphical user interfaces in SCADA software systems.
- Work experience specifying types of controllers, instrumentation, and other process control equipment to be installed in an industrial setting.
- Work experience troubleshooting issues with PLCs and other process control equipment in an industrial setting.
- Work experience advising, assisting, and instructing maintenance personnel on proper operation and maintenance of process control systems.
- Work experience implementing appropriate policies, standards, practices, for all phases of Process Control implementation and maintenance.

### Preferred Qualifications

- Professional Engineering License.
- Citect Certified SCADA Engineer Certification.
- Experience working with SCADA systems within Wastewater Treatment facilities.

## Knowledge, Skills, and Abilities

- Knowledge of ladder logic and relay logic hardware including the ability to diagnose problems with industrial control systems using ladder diagrams.
- Knowledge of the design and operation of industrial and public wastewater treatment facilities.
- Knowledge of process control instrumentation.
- Knowledge of the principles of electricity such as units (e.g., amps, ohms, watts, volts), current flow, circuit, lock-out/tag-out, horsepower, SCADA systems, generators, transformers, and electrical controls.
- Knowledge of the tools, equipment, and procedures used in the operation and maintenance of wastewater treatment plant facilities.
- Knowledge of engineering science covering the uses of electricity and the equipment for power generation and distribution.
- Knowledge of engineering involved in the development of water distribution systems, recycling methods, sewage treatment plants, and other pollution prevention and control systems in the water, air, and land.
- Knowledge of electrical and mechanical engineering principles as applied to the design and installation of mechanical equipment and systems in buildings.
- Knowledge of SCADA software/systems.
- Knowledge of programming languages used by SCADA software and PLC equipment.
- Skill in organizing information, materials, and/or documentation in a systematic and logical manner.
- Skill in using basic mathematics (e.g., addition, subtraction, multiplication, division) to solve problems.
- Skill in verbally delivering information in a clear and concise manner to an audience.
- Skill in selecting the most appropriate course of action in situations where information is unclear or unavailable and making high quality and effective decisions.
- Skill in maintaining a positive working relationship through comfortable and appropriate interpersonal interaction.
- Skill at operating a motor vehicle.
- The ability to manage and allocate one's time in order to handle multiple tasks and/or meet pressing deadlines.
- The ability to pay close attention to detail in order to ensure the completeness and accuracy of work.
- The ability to determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- The ability to investigate a problem in order to identify the root cause(s) and determine an appropriate solution.

- The ability to identify new processes or improvements to existing processes that allow work to be performed more efficiently or effectively.

