

**JOB DESCRIPTION  
CITY OF SPRINGFIELD**

**HUMAN RESOURCES DEPARTMENT  
EMPLOYMENT AND  
COMPENSATION DIVISION**

Job Title Control Systems Engineer  
Sch & Grade PAT- 12  
Class Code BH21  
FLSA Status Exempt  
Bargain Unit Elig. Not Eligible  
Occupational Series Engineering

**PRIMARY PURPOSE:**

Responsible for design, installation, maintenance and repair of electrical and electronic equipment and control systems for wastewater treatment plants and lift stations.

**SUPERVISION:**

Under the general supervision of Plant Maintenance Engineer; supervises assigned electrical and instrumentation maintenance personnel.

**DESCRIPTION OF WORK:**

**ESSENTIAL FUNCTIONS:**

1. Develops and oversees a maintenance program encompassing electrical and instrumentation maintenance activity related to wastewater treatment plants and lift stations.
2. Oversees the maintenance of electrical equipment, electronic and pneumatic equipment, and monitoring systems and controls.
3. Implements and maintains a computerized preventative maintenance and inventory control program for electrical and electronic maintenance.
4. Develops sophisticated computerized monitoring and control systems, and installs instrumentation, electrical and electronic equipment as part of plant Supervisory Control and Data Acquisition (SCADA) system to monitor, alarm and control treatment plant processes and equipment. Prepares specifications, purchases and installs new SCADA software to execute the monitoring and control strategy of the wastewater treatment facility.
5. Develops, implements and maintains short- and long-range plans for both equipment needs and emergency situations.
6. Prepares specifications for new, replacement, and/or modification of equipment, as well as major repair jobs.
7. Works closely with consulting engineers on design of new facilities to assure compatibility with electrical and instrumentation planned for, or currently existing at, wastewater facilities.
8. Works closely with engineers and contractors on construction of new facilities to coordinate installation of electrical and instrumentation required by contract with that installed by City.
9. Provides assistance and works closely with contractors during annual pure oxygen plant turnaround.
10. Provides input to annual maintenance operating budget.
11. Provides close technical support for maintaining electrical and electronic equipment and instrumentation.
12. Reviews and evaluates work performance of electrical and instrumentation maintenance personnel.
13. Develops and conducts training for electrical and instrumentation maintenance personnel.
14. Insures that proper safety procedures are followed and that all electrical equipment is in safe working order.
15. Works closely with the Operations Supervisor, Plant Maintenance Engineer, and the Laboratory Supervisor to insure the efficient operation of treatment plants and lift stations.
16. Travels to various treatment plant work sites and lift stations, as necessary.
17. Supervision of electricians and instrument technicians.

**IMPORTANT FUNCTIONS:**

1. Attends professional training and takes advantage of career development opportunities.

*Performs related work as required.*

**QUALIFICATIONS REQUIRED:**

Any combination of education, training, and experience providing the following knowledge, skills, and abilities:

**Knowledge**

Principles and procedures of wastewater plant electrical and electronic equipment and repair, electronic controls, computer equipment, pneumatic controls, electrical equipment and wiring. Knowledge of National Electrical Codes. Knowledge of team development techniques.

**Abilities**

Effectively develop a maintenance program encompassing all phases of maintenance activity related to wastewater treatment plants and lift stations; learn and appropriately apply State laws and regulations related to wastewater treatment; facilitate and supervise the work of assigned maintenance personnel using self-directed work team concepts; model and promote acceptance and respect for differences among employees and citizens; perform effectively as a member of a team in carrying out the City's stated mission and philosophy; utilize sound independent judgement and make responsible decisions and recommendations; read and interpret electrical diagrams, schematics, pump curves, engineering drawings and equipment specifications; follow oral and written instructions; utilize necessary computer applications; communicate effectively both verbally and in writing; deal effectively and courteously with associates and the general public; perform the essential functions of the job without posing a direct threat to the health and safety of others.

**Experience, Education, and Training**

Graduation from an accredited college or university with a Bachelor of Science Degree in Electrical, Civil or Mechanical Engineering, plus at least three years of experience in the maintenance of electrical, electronic, and instrumentation and controls equipment, and control systems for a wastewater or water treatment plant or similar industrial facility. Electrical Engineer preferred.

**Physical Requirements**

Performs bending, squatting, kneeling, and reaching from ground level to overhead; push and pull, lift and carry up to approximately 25 pounds; hold and grip objects.

**Working Environment**

Primarily indoors with heating and cooling regulated; subject to electrical, chemical and toxic waste hazards associated with plant equipment and operations; subject to fumes and odors; may be subject to extreme noise; may be subject to extreme weather conditions during outdoor activities.

**Licensing/Certification**

Registration as a Professional Engineer (PE) in Missouri is desirable.

**Miscellaneous Requirements**

If operating a motor vehicle for the purpose of completing job duties, must possess a valid Missouri Motor Vehicle Operator's License.

<b>Last Revision:</b>	February 8, 2012	<b>GENERAL ORDINANCE NO.</b> 5474
<b>Comments:</b>	Updated Abilities	<b>Date:</b> October 2010

**I have read the foregoing job description in its entirety and understand its contents. I can perform the essential functions outlined with or without reasonable accommodation under the Americans with Disabilities Act.**

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_