

**JOB DESCRIPTION
CITY OF SPRINGFIELD**

**HUMAN RESOURCES DEPARTMENT
EMPLOYMENT AND
COMPENSATION DIVISION**

Job Title	<u>Instrument Technician</u>
Sch & Grade	<u>CTL-12</u>
Class Code	<u>GB09</u>
FLSA Status	<u>Non-Exempt</u>
Bargain Unit Elig.	<u>SEIU</u>
Occupational Group	<u>Craftworker</u>

PRIMARY PURPOSE:

To perform skilled work in the diagnosis, troubleshooting, repair, and maintenance of specialized and complex equipment, electronic and pneumatic instrumentation, and controls used in wastewater treatment plants including tertiary treatment units and lift stations.

SUPERVISION:

Under the general supervision of the Wastewater Plant Maintenance Engineer.

DESCRIPTION OF WORK:

ESSENTIAL FUNCTIONS:

1. Analyzes, troubleshoots, and performs diagnosis for problems with equipment, controls, and electronic and pneumatic instrumentation in a pure oxygen activated sludge treatment plant.
2. Repairs single loop and cascaded electronic and pneumatic controllers, transducers, transmitters, and control devices, telemetry equipment, programmable logic controllers, relay logic control systems, gas detection equipment, vibration devices, and other related equipment.
3. Performs maintenance including calibration on equipment, controls, and electronic and pneumatic instrumentation as well as more routine electrical work up to and including 480 volt.
4. Reads and interprets technical repair manuals, operating guides, schematics, wiring diagrams, shop drawings, etc.
5. Serves as lead worker in a crew of two or more plant personnel, overseeing work assignments, giving technical advice, and completing work reports.
6. Performs basic mathematical calculations, including minor algebra, as utilized for measurement levels, electronic repair, etc.
7. Drives equipment and vehicles to various work site locations at the North and South Treatment plants and lift stations to diagnose or evaluate repairs.
8. Prepares and maintains records, reports, parts lists, and work orders.
9. Runs diagnostic test equipment and interprets results.
10. Utilizes a variety of tools associated with electronic and pneumatic instrumentation and wiring.
11. Determines when to repair or replace equipment.

IMPORTANT FUNCTIONS:

1. Performs data entry as it pertains to telemetry.
2. Cleans tools and maintains a neat and orderly work area.

Performs related work as required.

QUALIFICATIONS REQUIRED:

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

Knowledge

Electronics theory and pneumatic controls and relay logic to troubleshoot and repair control devices to the component level; complex procedures pertinent to equipment repair for electronic and pneumatic instrumentation; math, including basic algebra, as it relates to electronic and pneumatic repair; test equipment and procedures used in maintenance of pneumatic, electronic, and electrical components. Sufficient knowledge of electrical theory, safe work practices and equipment used for basic repair and diagnosis of electrical equipment.

Abilities

Detect and repair defects in the operation of a variety of electronic and pneumatic instrumentation, equipment and controls in a manner consistent with safety principles; utilize and maintain tools and test equipment used in the electronic and pneumatic instrumentation trade; perform basic electrical diagnosis and repair on equipment of 480 volts or less; follow oral and written instructions; read and understand technical manuals, manufacture guidelines, shop drawings, etc.; oversee a crew of two or more plant personnel; maintain written records and prepare simple reports regarding time, materials used, etc.; communicate effectively both orally and in writing; present an overall professional image; deal effectively and courteously with associates and the general public; perform the essential functions of the job without posing a direct threat to the safety and welfare of others; effectively welcome and embrace differences among employees and citizens; performs effectively as a member of the team in carrying out the City’s stated mission and philosophy.

Experience, Education, and Training

A minimum of three years of experience in maintenance, repair, and servicing specialized and complex industrial and manufacturing equipment including electronic and pneumatic instrumentation. College-level courses or equivalent with an emphasis in electronics may be substituted for one year of required work experience.

Physical Requirements

Must be able to hold and grip objects; bend, squat, kneel, crawl, and reach over head; work in awkward positions; twist and turn torso; climb ladders and stairs; push and pull up to 10 pounds; lift and carry up to 25 pounds; distinguish primary colors due to wiring and resister color codes. Subject to periods of prolonged standing.

Working Environment

Both indoor and outdoor environments; susceptible to a variety of extreme weather conditions; subject to constant and extreme noise, working in cramped spaces, as well as a variety of mechanical, electrical, chemical, toxic waste, and other safety hazards associated with treatment plant facilities; possible exposure to disease and strong odors as related to wastewater treatment operations.

Licensing/Certification

Must possess a valid Missouri Motor Vehicle Operator's license.

Miscellaneous Requirements

None required.

Last Revision:	February 13, 2012	GENERAL ORDINANCE NO. 4254
Comments:	Updated Abilities	Date: January 27, 1992

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:** _____