



Career Service Authority

Traffic Signal Technician 1

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GENERAL STATEMENT OF CLASS DUTIES

Under direct supervision performs work in installation and maintenance of traffic control devices.

DISTINGUISHING CHARACTERISTICS

This class is the entry level of the Traffic Signal Technician series. Incumbents learn to perform the full range of traffic signal maintenance and repair functions and are expected to advance to the higher level within a reasonable period of time. An employee in this class may be subject to being on call for emergency repair work.

Guidelines, Difficulty and Decision Making Level:

Procedures, methods and techniques to be used are well established with options to be considered well defined. Tools, work aids and materials to be used are specified. Work steps are demonstrated or made clear by straightforward oral instructions.

Level of Supervision Received and Quality Review:

Under close supervision, the employee receives training to develop skills and abilities in a specific line of work or general occupational area. Work product is subject to close, continuous review.

Interpersonal Communications and Purpose:

Contacts with the public or employees where factual information relative to the organization or its functions is received and relayed, or a service rendered, according to established procedures or instructions.

ESSENTIAL DUTIES

Installs, maintains, and repairs highway traffic signal systems, including wiring, conduits, poles, signal heads, controllers, switches, and vehicle detectors, under the direction of a higher classified Traffic Signal Technician.

As part of routine maintenance and in emergency response situations, makes detailed checks of traffic signals and highway lighting systems to locate trouble or causes of failure and adjusts detectors and times controllers; replaces parts whenever failure or damage occurs under the direction of a higher classified Traffic Signal Technician.

As a member of a construction crew, installs and tests signal systems for proper functioning.

Prepares lists of materials needed; makes daily work reports and keeps simple records.

Completes all required documentation and reports.

Observes all common safety practices associated with vehicle operation, traffic control and equipment operation.

May work nights, weekends, holidays and under any weather conditions.

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Any one position may not include all of the duties listed.
However, the allocation of positions will be determined by
the amount of time spent in performing the essential duties
listed above.
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MINIMUM QUALIFICATIONS

Competencies, Knowledge & Skills:

Customer Service – Works and communicates with customers to satisfy their expectations and is committed to quality service.

Reading – Understands and interprets written material, including technical material, rules, regulations, instructions, reports, and charts, graphs, or tables; applies what is learned from written material to specific situations.

Writing – Recognizes or uses correct English grammar, punctuation, and spelling; communicates information in a succinct and organized manner, produces written information, which may include technical material, which is appropriate for the intended persons.

Oral Communication – Expresses information to individuals or groups effectively; taking into account the audience and nature of the information; makes clear and convincing oral presentations; listens to others, attends to nonverbal cues and responds appropriately.

Mathematical Reasoning – Understanding of basic math that will be used on the job: counting, adding, subtracting and multiplying to include shift and schedule.

Interpersonal – Considers and responds appropriately to the needs, feelings, and capabilities of others; adjusts approaches to suit different people and situations; may deal with people who are difficult, hostile or distressed.

Integrity/Honesty – Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of violating these standards on an organization, self and others; is trustworthy.

Computer Systems – Utilizes a computer and desktop software to enter and retrieve data and complete reports and emails; also uses specialized traffic control software.

Skill in using hand tools and power tools common to the electrical and electronics trades.

Knowledge of electronics sufficient to be able to understand the functional and operational elements of traffic signal and related equipment.

Knowledge of theory, accepted practices and installation methods of 120/240 volt power systems.

Skill in using electrical and electronic test equipment.

Knowledge of safety hazards and necessary safety precautions sufficient to be able to establish a safe work environment for self and others.

Physical Demands:

Standing: remaining on one's feet in an upright position.

Walking: moving about on foot.

Sitting: remaining in the normal seated position.

Lifting: raising or lowering an object from one level to another.

Carrying: transporting an object, usually by hand, arm, or shoulder.

Pushing: exerting force upon an object so that the object is away.

Pulling: exerting force on an object so that it is moving to the person.

Climbing: ascending or descending objects usually with hands/feet.

Balancing: maintaining body equilibrium to prevent falling over.

Stooping: bending the body by bending spine at the waist.

Kneeling: bending legs to come to rest on one or both knees.

Crouching: bending body downward and forward by bending legs.

Crawling: moving about on hands and knees or hands and feet.

Reaching: extending the hand(s) and arm(s) in any direction.

Handling: seizing, holding, grasping, or otherwise working with hands.

Fingering: picking, pinching, or otherwise working with fingers.

Feeling: perceiving attributes of objects by means of skin receptors.

Talking: expressing or exchanging ideas by means of spoken words.

Hearing: perceiving the nature of sounds by the ear.

Repetitive motions: Making frequent movements with a part of the body.

Eye/hand/foot coordination: performing work through using two or more.

Lifting: Raising or lowering an object 25 – 50 pounds.

Far acuity: ability to see clearly at 20 feet or more.

Near acuity: ability to see clearly at 20 inches or less.

Depth Perception: ability to judge distance and space relationships.

Field of Vision: ability to see peripherally.

Accommodation: ability to adjust vision to bring objects into focus.

Color Vision: ability to distinguish and identify different colors.

Working Environment:

Extreme Cold: temperature cold enough to cause marked bodily discomfort.

Extreme Heat: temperature hot enough to cause marked bodily discomfort.

Temperature Changes: variations in temperature from hot to cold.

Wet: frequent contact with water or other liquid.

Humid: conditions with high moisture content to cause bodily reactions.

Noise: sufficient noise to cause distraction or possible hearing loss.

Vibrations: Strain on the body to cause bodily harm is endured daily

Hazards: Conditions where there is danger to life, body and/or health.

Atmospheric Conditions: conditions that affect the skin or respiratory system.

Exposure to hazardous chemicals.

May be exposed to extremes of heat and cold in all weather conditions.

May be exposed to hazardous chemicals.

Exposed to hazards from electro/mechanical/power equipment.

Exposed to toxic chemicals.

Exposed to unpleasant elements (accidents, injuries and illness).

Subject to burns and cuts.
Subject to hazards of flammable, explosive gases.
Subject to injury from moving parts of equipment.
Works in precarious or high locations (ladders, scaffolding, etc.)
Subject to many interruptions.
Subject to varying and unpredictable situations.
Handles emergency or crisis situations.
Subject to long irregular hours.
Handles absentee replacement on short notice.

Education Requirement:

High school diploma or GED Certificate with additional courses in electronics which must have included AC/DC electricity, solid state theory, use of electronic testing equipment and reading electronic schematics.

Experience Requirement:

One year of work experience in traffic signal installation and maintenance or equivalent experience on similar equipment such as computers, two way radios, and/or sophisticated electrical or electronics systems.

Education/Experience Equivalency:

Additional appropriate education may be substituted for the minimum experience requirement.

One year of additional experience at the minimum qualification level will substitute for the additional post high school electronics courses.

Licensure and/or Certification:

Possession of a valid driver's license at the time of application is required.

By assignment some positions may require possession of a Colorado Commercial Drivers License (CDL) B with appropriate endorsements by completion of probation. Positions require a good driving record and license must be kept current as a condition of continued employment in this class.

International Municipal Signal Association (IMSA) Work Zone Traffic Control Safety Certification or an approved equivalent and Traffic Signal Level I Certification are required by the end of the probation period.

CLASS DETAIL

FLSA CODE: Non-Exempt

ESTABLISHED DATE: 09/16/2006

ESTABLISHED BY: Linda Wasserman

REVISED DATE:

REVISED BY:

CLASS HISTORY This class was developed as part of a study of the Traffic Signal Technician series and replaces Traffic Signal Technician Assistant.