

City of South San Francisco
Human Resources Department

Electrical Technician
Class Description

Definition

Under general supervision, performs a wide variety of skilled electrical work in the installation, repair, and maintenance of traffic signals, street lighting, and other electrical wiring, equipment, and devices; and does related work as required.

Distinguishing Characteristics

This position differs from the lower-level classification in that this is the journey-level position in the electrical crew performing skilled electrical maintenance and repair work on a daily basis. Incumbents may be required to assist the higher-level class in performing work on more complex repairs and projects.

Typical and Important Duties

1. Installs, maintains, troubleshoots, and repairs street lighting and traffic control systems.
2. Tests, locates, and repairs trouble in power heating, pumps, underground cables, and other electrical systems and equipment.
3. Repairs and replaces defective parts in motors, generators, pumps, switchboards, controllers, switches, conduits, wires, cables, pull boxes, transformers, and other fixtures, appliances, and equipment.
4. Repairs and replaces electroliers.
5. Reads blueprints, diagrams, and schematics.
6. Incumbents will be required to work frequently at a considerable height above the ground.
7. Assists the others in performing the more complex electrical installations and repairs.
8. Performs related duties and responsibilities as assigned.

Job-related Qualifications

Knowledge of:

- Techniques, tools, equipment, and materials used in electrical trade.
- Fundamentals of electricity, particularly as related to the operation of traffic signals, street lighting systems, and buildings.
- Operation and maintenance of small electrical motors, mechanisms, and traffic signal controllers.
- Occupational hazards and safety practices and procedures related to the work.
- Techniques for dealing with the public, City staff, and representatives of contractors in an effective manner.

Ability to:

- Examine, diagnose, and repair faulty electrical wiring systems.

- Read and interpret blueprints, electrical diagrams, and color-coded schematics.
- Assist in more complex electrical maintenance and repair work.
- Understand and carry out oral and written direction.
- Represent the City, the department, or the organizational unit effectively in contacts with representatives of other agencies, City departments, and the public.
- Establish and maintain cooperative working relationships with other employees and the general public.
- Communicate effectively in writing, orally, and with others to assimilate, understand, and convey information, in a manner consistent with job functions.
- Use small tools and shop equipment necessary to the repair of electrical equipment.
- Perform heavy physical and manual labor.
- Acquire a general knowledge of division policies and procedures as related to electrical operations.
- Use initiative and independent judgment within established policy and procedural guidelines.
- Take a proactive approach to customer service issues.
- Make process improvement changes to streamline procedures.
- Organize own work, set priorities, meet critical deadlines, and follow-up on assignments with a minimum of direction.
- Work in a safe manner, following City safety practices and procedures.
- Maintain confidentiality regarding sensitive information.

Skill in:

- Driving a variety of vehicles safely.

Experience and Training

Any combination of experience and training that would provide the required knowledge, skills, and abilities would be qualifying. A typical way to obtain the knowledge, skills, and abilities would be:

Experience:

Three years of progressively more responsible experience in general electrical installation and maintenance and repair work equivalent to three years of experience in the next lower-level classification with the City of South San Francisco.

Training:

Equivalent to graduation from high school, supplemented by courses in electrical theory and application.

Licenses and Certificates

All licenses and certificates must be maintained as a condition of employment.

- Possession of, or ability to obtain, an appropriate, valid California commercial driver's license, with proper endorsements and a satisfactory driving record.

Special Requirements

Essential duties require the following physical skills and work environment:

Physical Skills:

Able to sit, stand, walk, kneel, crouch, stoop, squat, crawl, twist, and climb; lift and carry 75 pounds; dexterity to drive trucks and large vehicles; distinguish among various colors; distinguish various computer generated auditory signals; use common hand tools; vision to read printed materials, a computer screen, and to test equipment in varied field settings; hearing and speech to communicate in person and over the telephone.

Work Environment:

Work in a shop and field setting; exposure to inclement weather, cold, heat, noise, outdoors, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, mechanical hazards, electrical hazards, and explosive hazards; work from a height of up to 100 feet above ground.

Ability to:

Travel to different sites and locations; drive safely to different sites and locations; maintain a safe driving record; maintain a clean and neat appearance; work protracted and irregular hours; respond to a pager; take 24-hour call and stand-by; available for evening meetings; available for unusual hours in emergencies.

Additional Information:

- Approved: April 1994
- Revised Date: April 1995, December 2001, January 2003, June 2003
- Former Titles:
- Abolished:
- Bargaining Unit: AFSCME
- DOT: Yes
- Status: Classified/Non-exempt
- Job Code: A160