ELECTRICIAN

DEFINITION

Under general direction and supervision, may plan, coordinate, inspect, test, program, service, troubleshoot, and perform preventive maintenance tasks on electrical equipment; organizes and performs a variety of skilled maintenance and repair tasks on high and low voltage electrical equipment, facilities, and gas distribution systems; and performs other related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

This is a journey-level skilled class which reports to the Public Works Manager or designee. Work is performed under general supervision while following established policies, procedures, and safety regulations and guidelines. This position may require competency in any one or more of the following areas: electrical and mechanical maintenance, which includes high and low voltage electrical distribution and associated equipment such as, street lighting systems, field lighting systems, and gas distribution facilities.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Installs, maintains, services, and repairs technical, complex electrical, and mechanical systems, including high and low voltage electrical systems, gas distribution systems, street lighting and airfield lighting, as well as runway, taxiway, aircraft parking apron lights in accordance with Federal Aviation Administration (FAA) regulations and Advisory Circulars; accurately interprets and applies National Electrical Code (NEC) codebook, all federal, state, and local laws, rules, and Occupational Safety and Health Act (OSHA) safety regulations, as well as NFPA70E Standard for Electrical Safety in the Workplace; reads and interprets plans, blueprints, and specifications, maintains accurate records, estimates time, labor, and material costs; responsible for security and control of the distribution systems and safely conducts or assists other staff in operating equipment to correct system problems and restore service during emergency conditions; maintains accurate logs and reports as needed; installs, tests, and provides data for voltage and current/energy recordings, power quality, analyzers, and at customer sites; makes internal connections to adjust voltage; initiates and issues switching orders and electrical clearances in accordance with the City's lockout/tagout policy and procedure; conducts routine inspections of the utility's distribution systems and associated equipment; inspects substation and commercial switch gear, as well as other related equipment and performs limited substation switching as directed; assists the natural gas division with installation, maintenance, and servicing new customers; performs maintenance of valves and meters for new and existing customers; line locating for both gas and electric and assists with leak survey and abandonment/removal of unused gas lines; may supervise and oversee the work of others, including vendors and contract service providers; operates and utilizes various power and hand tools, testing equipment, in a safe and efficient manner; handles calls from customers and assist

appropriate staff to respond to routine and emergency repair work orders, during normal duty hours and non-duty hours; acts as liaison between the customers and the utility division; adheres to safety standards as described in the *Illness and Injury Prevention Plan;* utilizes computer software programs competently; communicates effectively, both orally and in writing; routinely adheres to and maintains a positive attitude; maintains effective work relationships with supervisor, fellow City employees, customers, and outside agencies; operates vehicles and equipment in a safe and efficient manner; and performs related duties and responsibilities, as required.

EMPLOYMENT STANDARDS

Training and Experience – High School Diploma or GED equivalent and two years of journey-level experience as a commercial/industrial Electrician, supplemented by successful completion of a recognized electrician apprenticeship program is required. Electrical and mechanical maintenance experience involving electrical distribution systems, street lighting systems, and high/low voltage systems is preferred. Experience with natural gas distribution system maintenance, repairs, and servicing is desired.

Knowledge & Abilities – **Knowledge of:** Theories, principals, methods, equipment, tools, and materials used in electrical and mechanical maintenance; occupational hazards and safety precautions, including current applicable NEC regulations, OSHA regulations, and FAA airport electrical rules and regulations, all federal, state and local laws, rules, and NFPA70E Standards for Electrical Safety in the Workplace regulations. **Ability to:** Recognize, troubleshoot, and solve electrical problems; utilize a variety of tools and equipment used in the electrical trade; operate aerial equipment and use electrical test equipment; read and understand blueprints, as well as schematic diagrams; follow oral and written instructions; keep accurate records; install, perform maintenance, alter, and repair wiring, electrical boxes, conduits, wiring outlets, distribution panels, main electrical services, bus bars, machinery, branch circuits, underground and pole line distribution, switchboards, transformers, and rigging; may be required to operate heavy equipment such as a bucket truck; use of standard and specialized electrical devices or equipment such as voltmeter, amp, meter, ohmmeter, megohmmeter, and other hand tools used to test electrical flow and connectivity. Installation of high voltage overhead/underground cables and transformers; update maps, perform record keeping tasks in support of the City's utilities; perform regular preventive maintenance on the system's electrical components; provide the primary centralized operating function for the City's utilities operations, requiring a detailed knowledge of electric voltage regulation and load allocation; deal courteously with the public while assisting with complaints, coordinate switching with individual customers; effectively present instructions and information in writing and verbally to coworkers, the general public, and outside agencies; use patience, tact, diplomacy, and courtesy in dealing with the public and employees; establish and maintain effective working relationships with those contacted in the

course of work, including City and other government officials, community groups, and the general public; and apply safe work practices.

Licenses & Certificates – Must possess a valid California Class "C" driver's license. A Journeyman Electrician's Certificate, State of California Electrical Contractor's License (C10, Electrical Contractor), or documentation verifying completion of a recognized electrician apprenticeship/certification program is required. Must obtain Operator Qualification (OQ) certification for natural gas within two years of appointment. Must be able to obtain an Airport access badge with driving privileges within thirty days of appointment.

WORKING CONDITIONS

Work is performed in a variety of environmental conditions, both indoors and outdoors, with exposure to wide temperature variations, noise, vibrations, fumes, odors, dust, machinery and its moving parts; occasional exposure to hazardous conditions and chemicals. Incumbent must be physically able to perform strenuous work on a regular basis. Physical demands are light to moderate, consisting of sitting, using hands and fingers to handle or feel objects, tools, or controls; reaching, standing, walking, stooping, kneeling, crouching, and crawling; occasional heavy lifting up to 100 pounds, climbing ladders and entering confined spaces; exposure to electrical hazards; incumbent wears Personal Protective Equipment (PPE) as required in the NFPA70E Standard for Electrical Safety in the Workplace; specific vision capacity includes: close, distance, peripheral, depth perception, color differentiation, and the ability to adjust focus. Incumbent must be able to hear in the normal range, with or without correction; must have the stamina to work long hours and overtime, if assigned; must be willing to work an irregular schedule, which may include weekends, holidays, nights or varying shifts. Incumbent will be required to participate with the standby/non-duty-hour emergency response rotation, as assigned; will be required to respond to callouts and emergencies during non-duty hours, on weeknights, weekends, and holidays.

APPROVED: _____
PERSONNEL OFFICER

DATE (REVISED): May 8, 2013

Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.

Shared/jobdescriptions(Final)/Economic Development-Airport/Electrician/5/8/13 [chw]