

 Oroville Hospital	Job Description for Electrician (Journeyman Level)		Department: Maintenance
			Dept.#: 8460
	Last Updated: 12/03/09		

Reports To

Assistant Director of Plant Operations

Job Summary

Install, maintain and repair electrical appliances, systems, facilities and related electrical controls and devices. Helps maintains buildings, grounds and equipment, as well as utilities and their use; attends maintenance and engineering activities with other departments, attends staff meetings, as well as safety and other meetings, as directed by the Director of Plant Operations.

Duties

1. Repairs, installs, replaces and tests electrical circuits, equipment and appliances using hand tools and testing instruments to supply electrical power for lighting and equipment operation in the hospital.
2. Inspects and tests electrical lighting, signal, communication, and power circuits and equipment
3. Isolates defects in wiring, switches, motors and other electrical equipment using testing instruments such as ammeter, ohmmeter, voltmeter, or testing lamp.
4. Examines and tests such elements of systems as distribution panel, controls, circuit fixtures and motors to locate obvious faults such as blown fuses, short circuits, broken wires, loose connections, and worn motors.
5. Replaces faulty switches, sockets, plugs, fuses, insulators, and other simple elements of electrical systems, fixtures and appliances.
6. Renews circuits either by isolating and cutting out defective wiring and replacing it with new wiring, or by splicing ends of broken wires.
7. Dismantles electrical machinery with hand tools and unsolder or unscrew wiring connections.
8. Replaces such defective mechanical parts as gears, bushings and bearings and such related electrical parts as armatures, commentators, and transformers, assembling components according to diagrams.
9. Checks clearance of moving parts with precision gauges.
10. Restores electrical connections to complete circuits.
11. Installs new wiring and electrical machinery.
12. Studies blueprints and diagrams to ascertain layout, location and specifications of items to be installed.
13. Estimates quantities of materials needed.

14. Cuts and shapes conduit with hand tools and fastens it in place with brackets.
15. Fastens fixtures, switches and outlet boxes in positions.
16. Runs wire through conduit and makes connections to complete circuits.
17. Assembles, installs, and connects components of switchboards and distribution panels and connects them to units controlled.
18. Mounts motors, transformer, lighting fixtures or other equipment into position and completes circuits, according to diagram specifications.
19. May perform related work, such as recording time and materials expended on each work order; operating lathe, grinding, and polishing machines, on making finishing, and rebuilding parts of equipment, and performing minor carpentry, plastering, and painting in connection with repair work.
20. Performs a variety of duties in and around buildings and grounds of the hospital complex in completing their tasks.
21. Assists by transporting materials and tools by hand or dolly and by performing tasks as directed.
22. Makes repairs, cleans, lubricates and stores maintenance tools and equipment.
23. Observes mechanical devices, pumps, engines, motors, air conditioning systems, laboratory equipment and plumbing systems in operation and listens to their sounds to locate causes of trouble.
24. Dismantles devices to gain access to and remove defective parts.
25. Repairs or replaces defective parts.
26. Adjusts functional parts of devices and control instruments or may install special functional and structural parts.
27. Lubricates and cleans parts.
28. Starts devices to test their performance.
29. Set-up and operate lathe, drill press, grinder and other metal-working tools to make and repair parts.
30. Keep records for equipment showing type, model number, date of installation, and extent of service.
31. Repair toolkit, ammeters, ohmmeters, test lamp, voltammeter, wattmeter and wiring diagrams.
32. Fans, pumps, motors, compressors, refrigeration units, specifications, blueprints and hand power tools.
33. Numerical ability is needed to make calculations for installation and repair of equipment and to estimate materials.
34. Spatial perception is needed to read blueprints and specifications and to visualize installation. Form perception is needed when measuring installing parts and equipment.
35. Motor coordination is needed to coordinate eyes and fingers when using hand tools. Finger dexterity is needed when wiring and testing systems. Manual dexterity is needed to work with hands in replacing various components.

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36. Color discrimination is needed to differentiate wire colors in order to connect correct wires.
37. A preference for things and objects is necessary to master techniques of installing and repairing electrical or mechanical systems and fixtures.
38. A preference for activities resulting in tangible satisfaction to detect and repair deficiencies in electrical or mechanical systems.
39. Ability to handle a variety of changing duties resulting from the complexities of equipment.
40. Ability to work within limits and standards set by building codes and blueprints. Capable of working under emergency conditions.
41. Install, maintain and repair electrical equipment and circuits such as wire, conduit, switches, outlets, junction boxes, transformers, motors, and generators in facilities such as washers, dryers, ranges, timing devices, steam and electric heating units, exhaust systems, smoke detectors, fire alarms, clock and bell systems, electrical surgical units, hypothermal units, humidifiers, suction machines, electrical beds, thermostats and electrical systems of furnaces and boilers.
42. Isolate and correct malfunctions in equipment and circuits of a routine recurring nature.
43. Cut, thread, bend, and install conduit.
44. Disassemble, clean, repair, and reassemble electrical motors and related equipment following established procedures.
45. Test, maintain, and repair all emergency electrical equipment as required.
46. Follow a predetermined schedule of preventive maintenance on equipment and circuits to check for proper operation, loose connections, overheating, leaking, insulation, arcing, deterioration, cleanliness, vibration, alignment, and lubrication.

Qualifications

1. High school graduation with related shop courses preferred
2. Up to one month's on-the-job training to learn location of equipment, supplies and hospital layout. Working knowledge of related sections of public building and safety codes
3. Must possess a valid California's driver's license with a clean DMV record
4. Working knowledge and training in electrical systems, schematics and relevant national, state and local codes.
5. Three to five years technical experience in working with: schematics and drawings; bending and installing conduit; and the installation, maintenance, and repair of electrical systems, fixtures and equipment.
6. Requires California Licensure or certification

Lifting Requirements

Work is medium. Lifts, carries, pushes or pulls a variety of materials (weighing up to 50 pounds) such as: cables, conduits, fixtures and testing equipment. When weights are heavier, are assisted by other crew members or uses mechanical equipment. Climbs, balances, stoops, kneels, and crouches to gain access to equipment, fingers small parts such as contacts and ends of wires when making connections. Reaches for and handles a variety of hand tools and meters. Near-visual acuity when reading blueprints and inspecting small parts. Depth perception, field of vision, and color vision are needed in making connections, soldering, welding and splicing wires. Works inside and outside, is exposed to hazards of electrical shocks and burns from heated equipment as well as falls from ladders or scaffolds, and noise from machinery.