

Job Description for Lead Maintenance Engineer

Department:	Maintenance
Dept.#:	8460
Last Updated:	01/20/09

Reports To

Assistant Director of Plant Operations

Job Summary

The Lead Maintenance Engineer is responsible for providing leadership and direction in the Plant Operations Department. Responsibilities include: planning; organizing; implementing; evaluating activities; and work flow during scheduled shift. Applies experience and judgment to determine importance of situations that arise; sets priorities; uses critical thinking skills to evaluate situations. Demonstrates effective leadership skills and accountability. 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. The Lead Maintenance Engineer supervises and performs a variety of duties in and around buildings and grounds of the hospital complex.
- 2. The Lead is responsible for directing, supervising, and/or performing all scheduled shift duties for Maintenance, Security, and Environmental Services.
- 3. 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
- 4. Inspects and tests electrical lighting, signal, communication, and power circuits and equipment
- 5. Isolates defects in wiring, switches, motors and other electrical equipment using testing instruments such as ammeter, ohmmeter, voltmeter, or testing lamp
- 6. 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
- 7. Replaces faulty switches, sockets, plugs, fuses, insulators, and other simple elements of electrical systems, fixtures and appliances
- 8. Renews circuits either by isolating and cutting out defective wiring and replacing it with new wiring, or by splicing ends of broken wires
- 9. Dismantles electrical machinery with hand tools and unsolder or unscrew wiring connections.

Title:	Maintenance: Lead Maintenance Engineer	January 20, 2009	Page 2 of 4	

- 10. 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
- 11. Checks clearance of moving parts with precision gauges
- 12. Restores electrical connections to complete circuits
- 13. Installs new wiring and electrical machinery
- 14. Studies blueprints and diagrams to ascertain layout, location and specifications of items to be installed
- 15. Estimates quantities of materials needed
- 16. Cuts and shapes conduit with hand tools and fastens it in place with brackets
- 17. Fastens fixtures, switches and outlet boxes in positions
- 18. Runs wire through conduit and makes connections to complete circuits
- 19. Assembles, installs, and connects components of switchboards and distribution panels and connects them to units controlled
- 20. Mounts motors, transformer, lighting fixtures or other equipment into position and completes circuits, according to diagram specifications
- 21. 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
- 22. Performs a variety of duties in and around buildings and grounds of the hospital complex in completing their tasks
- 23. Assists by transporting materials and tools by hand or dolly and by performing tasks as directed.
- 24. Makes repairs, cleans, lubricates and stores maintenance tools and equipment
- 25. 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
- 26. Dismantles devices to gain access to and remove defective parts
- 27. Repairs or replaces defective parts
- 28. Adjusts functional parts of devices and control instruments or may install special functional and structural parts
- 29. Lubricates and cleans parts
- 30. Starts devices to test their performance
- 31. Set-up and operate lathe, drill press, grinder and other metal-working tools to make and repair parts
- 32. Keep records for equipment showing type, model number, date of installation, and extent of service

Title:	Maintenance: Lead Maintenance Engineer	January 20, 2009	Page 3 of 4

- 33. Repair toolkit, ammeters, ohmmeters, test lamp, voltammeter, wattmeter and wiring diagrams
- 34. Fans, pumps, motors, compressors, refrigeration units, specifications, blueprints and hand power tools
- 35. Numerical ability is needed to make calculations for installation and repair of equipment and to estimate materials
- 36. Spatial perception is needed to read blueprints and specifications and to visualize installation. Form perception is needed when measuring installing parts and equipment
- 37. 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
- 38. Color discrimination is needed to differentiate wire colors in order to connect correct wires
- 39. A preference for things and objects is necessary to master techniques of installing and repairing electrical or mechanical systems and fixtures
- 40. A preference for activities resulting in tangible satisfaction to detect and repair deficiencies in electrical or mechanical systems
- 41. Ability to handle a variety of changing duties resulting from the complexities of equipment
- 42. Ability to work within limits and standards set by building codes and blueprints. Capable of working under emergency conditions
- 43. With experience, performs progressively more complex tasks

Qualifications

- 1. High School Graduate or Equivalent preferred
- 2. Must be able to follow oral and written instructions
- 3. Must be able to communicate in English
- 4. Must possess a valid California's driver's license with a clean DMV record
- 5. Previous experience in building and maintenance required
- 6. Previous experience in a supervisory or leadership role preferred

<u>Lifting Requirements</u>

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

Title:	Maintenance: Lead Maintenance Engineer	January 20, 2009	Page 4 of 4
--------	--	------------------	-------------

exposed to hazards of electrical shocks and burns from heated equipment as well as falls from ladders or scaffolds, and noise from machinery.