

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼
HUMAN RESOURCES ENTERPRISE
ELECTRICAL MAINTENANCE SPECIALIST

DEFINITION

Designs, develops, directs and coordinates the construction of electrical services for the statewide roadway and bridge lighting system, performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Assists a supervisor by performing, in accordance with set procedures, policies, and standards, such duties as instructing employees about tasks, answering questions about procedures and policies, distributing and balancing the work load and checking work; may make occasional suggestions on appointments, promotions, and reassignments.

Designs, develops, and constructs new electrical systems as well as maintain and improve current lighting systems statewide by determining priorities, scheduling work projects, and inspecting work in progress and upon completion.

Plans, designs, and develops emergency electric power supply systems to meet current and anticipated electrical needs; inventories all maintenance installations and other transportation center facilities existing emergency electrical needs, future additional loadings, and proper generator sizing; inspects generators and develops a generator replacement program for the equipment procurement program.

Inspects contractual work being done by independent contractors, city and county electrical crews and utility companies and verifies compliance with bid and construction specifications.

Prepares preliminary cost estimates for materials, supplies and equipment for proposed construction or renovation.

Coordinates the installation of power transmission lines, transformers, lighting, heating or other circuits.

Develops preliminary schematic wiring diagrams of new installations and/or modifications.

COMPETENCIES REQUIRED

Knowledge of developing, producing, understanding, and using plans, blueprints, models and maps, including the use of tools and instruments to produce precisions technical drawings.

Knowledge of materials, methods, and the appropriate tools to construct objects, structures and buildings.

Knowledge of electrical equipment, components, instruments, and systems, including their design, installation, testing, uses, repair or maintenance.

Knowledge of the concepts, principles, theories, and methods related to the design, analysis, testing, and integration of electrical systems; energy conversion; electrical power generation, and energy analysis, test and integration of electrical systems; energy conversion; electrical power generation; and energy transmission, control, distribution or use.

Knowledge of electrical codes and practices.

Knowledge of standard practices, methods, tools and materials of the electrical trade.

Knowledge of the occupational hazards and safety precautions of the electrical trade.

Ability to function effectively in a work team environment.

Ability to anticipate and plan for expanded electrical needs.

Ability to troubleshoot, diagnose and repair complex electrical equipment and systems at heights of 100 to 180 feet.

Ability to estimate electrical costs for materials and supplies.

Ability to read and utilize electrical testing equipment and devices.

Ability to read electrical blueprints and wiring diagrams.

Ability to read and effectively communicate in English.

Skill in the use and care of electrical test equipment and tools.

Displays high standards of ethical conduct. Refrains from dishonest behavior.

Works and communicates with all clients and customers providing polite, quality professional service.

Displays a high level of initiative, effort, attention to detail and commitment by completing assignments efficiently with minimal supervision.

Follows policy, cooperates with supervisors and aligns behavior with the goals of the organization.

Fosters and facilitates cooperation, pride, trust, group identity and team spirit throughout the organization.

Exchanges information with individuals or groups effectively by listening and responding appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

The equivalent of five years of full-time experience in commercial, residential or industrial electrical construction, repair, or inspection work;

OR

substitution of the successful completion of one year of an electrical apprenticeship program from an approved trade school for one year of the required experience to a maximum substitution of four years;

OR

possession of a valid electrical license from a national, state, or local authority consistent with the provisions of Chapter 100, Code of Iowa.

NECESSARY SPECIAL REQUIREMENTS

All positions in this class must obtain a valid electrical license from a national, state, or local authority consistent with the provisions of Chapter 100, Code of Iowa, within six months of employment.

All positions in this job class require applicants to possess and maintain a Commercial Drivers License Class A at the time of hire. Other endorsements may be required within a period of time as determined by the appointing authority at the time of hire. Effective January 1, 1995, after accepting an offer of employment all persons will be required to pass a pre-employment drug test and alcohol breath test. (United States Department of Transportation Rule 49CFR Part 40).

NOTE:

After accepting an offer of employment, all persons are required to have a physical examination by a doctor of their choice verifying the physical ability to perform the duties described.

Effective Date: 04/10 DRF