

**BOARD OF REGENTS  
STATE OF IOWA  
REGENT MERIT SYSTEM**

**Class Title:** Electrician, High Voltage

**Class Code:** 5073

**Pay Grade:** 213

**GENERAL CLASS DESCRIPTION:** Under general supervision, applies knowledge, skills and abilities at the journey level to install, maintain, and repair high voltage (over 600 volts) electrical distribution systems, transformers, generators, switchgear, and metering and control systems.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

1. Installs, maintains, troubleshoots, calibrates, repairs and replaces high voltage electric distribution systems and related equipment, including but not limited to switchgear, circuit breakers, relays, substation equipment, solid state control systems, power and distribution class transformers, power generators, capacitor banks, solid state meters, field protection and monitoring systems, cable and conduit. Jobs may require one day to several weeks to complete depending on complexity.
2. Determines jobsite work sequences and safety procedures required, procures materials, coordinates outages, completes work, places systems back into service. Inspection of work by supervisor may occur up to weekly.
3. Draws layouts, reads and interprets blueprints, schematics, other drawings and instruction books.
4. Assists in directing the work of apprentices and other workers.
5. May perform other electrical duties as required.

**KNOWLEDGES, SKILLS, AND ABILITIES:**

1. Knowledge of the principles of electrical theory, methods and techniques used in the high voltage electrical trade.
2. Knowledge of the tools and equipment of the high voltage electrical and electronic trade and detailed skill in their safe use, proper care and maintenance.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed, nor is it intended that related duties cannot be required.

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3. Knowledge of the trade occupational hazards and safety precautions while working in confined spaces, aerial or elevated locations, extreme temperatures, excavations, and other environmental caused conditions.
4. Knowledge of electrical codes, utility standards, and safety programs as governed by rules, regulations and guidelines of OSHA, EPA, NFPA, ANSI, equipment manufacturers, and others.
5. Knowledge of proper bending and lifting techniques and ability to lift and carry at least 100 pounds.
6. Ability to communicate effectively orally and in writing with other department personnel, vendors and suppliers, students, staff, and the general public.
7. Ability to plan and perform work involving the installation, modification and repair of new and existing high voltage electrical systems and related electronic control and protective equipment with minimal guidance by others while maintaining work continuity when unplanned events cause disruptions.
8. Ability to interpret instructions, specifications, and blueprints.

**MINIMUM ELIGIBILITY REQUIREMENTS:**

Four years experience in the trade, including apprenticeship, of which two years must be working with high voltage (over 600 volts). Commercial Drivers License may be required.

**REVISION EFFECTIVE: July 1, 1995**