



**U.S. DEPARTMENT of COMMERCE**  
Office of Human Resources Management

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## Electrician (High Voltage) 11

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### **WG-2810-11**

NOTE: THE SENTENCE IN PART I DESCRIBING THE PURPOSE OF THE POSITION AND PARTS II AND III IN THEIR ENTIRETY ARE PERMANENT PARTS OF THE LIBRARY AND MAY NOT BE CHANGED OR EDITED IN ANY WAY.

#### **I. INTRODUCTION**

This position involves the testing, repairing, and maintenance of high voltage (600+) electric power controlling equipment and/or distribution lines.

#### **II. MAJOR DUTIES AND RESPONSIBILITIES**

Dismantles, repairs, cleans, assembles circuit breakers and switch gears. Installs, alters, and replaces generation and distribution equipment in substations, transformer vaults, or distribution centers. Troubleshoots distribution circuits and generating and controlling equipment to locate and correct the causes of outages and improper operation. Makes emergency cutouts and substitutions of power lines and equipment, sometimes working on distribution systems when they are hot.

#### **III. FACTOR LEVELS**

1. Skill and Knowledge - Knowledge of construction, installation, operation, and troubleshooting of sophisticated circuitry and controls associated with unique projects, requiring knowledge of high voltage electrical principles, procedures, materials, and safety standards, and general mechanical knowledge and skills. Some jobs may require knowledge of electronic principles relative to electronic control circuitry and some may involve test, repair, and maintenance of electric generating equipment. Ability to independently plan, lay-out, set-up, determine proper materials, procedures, equipment and tools, and to develop solutions to unusual or unique problems. Skill in using non-standard tools and equipment and in determining non-standard uses for standard tools and equipment to complete highly complex, unusual tasks. May require knowledge of complex shop math (i.e., algebra and trigonometry).

2. Responsibility - Receives assignments orally or by work orders which require independent review and interpretation. Determines materials, tools, equipment and procedures to be used, lays out work, sets up equipment in order to complete assignments efficiently and independently. Observes all on-the-job safety measures. Improvises, develops new procedures, solves unusual problems and substitutes for inappropriate or inadequate materials, tools, equipment and procedures. Supervisory review of completed work for timeliness and for meeting accepted trade standards.

3. Physical Effort - The work requires heavy physical exertion such as frequent climbing of ladders or scaffolds, crouching or crawling in restricted areas, and lifting and carrying of heavy objects weighing more than 50 pounds.

4. Working Conditions - The work environment involves moderate risks or discomforts which requires special safety precautions such as those required when working around moving parts or machinery.

THIS POSITION IS EXEMPT FROM COVERAGE UNDER THE FLSA.

#### **IV. UNIQUE POSITION REQUIREMENTS**

(Last Updated: October 28, 1994)

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