

STATE OF WISCONSIN
CLASSIFICATION SPECIFICATION

ELECTRICIAN

I. INTRODUCTION

A. Purpose of This Classification Specification

This classification specification is the basic authority under ER 2.04, Wis. Adm. Code, for making classification decisions relative to present and future skilled trade positions located within state government. This classification specification will not specifically identify every eventuality or combination of duties and responsibilities of positions that currently exist, or those that result from changing program emphasis in the future. Rather, it is designed to serve as a framework for classification decision-making in this occupational area.

Classification decisions must be based on the “best fit” of the duties within the existing classification structure. The “best fit” is determined by the majority (i.e., more than 50%) of the work assigned to and performed by the position when compared to the class concepts and definition of this specification or through other methods of position analysis. Position analysis defines the nature and character of the work through the use of any or all of the following: definition statements; listing of areas of specialization; representative examples of work performed; allocation patterns of representative positions; job evaluation guide charts, standards or factors; statements of inclusion and exclusion; licensure or certification requirements; and other such information necessary to facilitate the assignment of positions to the appropriate classification.

B. Inclusions

This classification is to be used exclusively for positions performing the full range of journeyman and/or master-level electrician work for a majority of the time. These are trades positions that are primarily responsible for installing, repairing or maintaining electrical wiring, equipment and fixtures; and for ensuring that work is compliant with relevant codes used by state agencies and the University of Wisconsin.

C. Exclusions

Excluded from this classification are the following types of positions:

1. Positions that meet the definition of confidential, professional or supervisor as defined in s. 111.81 (7) and (13) and (19), Wis. Stats., as administered and interpreted by the Wisconsin Employment Relations Commission.
2. Positions that perform semi-skilled trades work for a majority of the time such as Facilities Repair Worker or Facilities Mechanic. Semi-skilled trades work means the repair or replacement of existing equipment or building components with equipment or components

of the same kind that does not alter or affect the performance of any building system, structure, exterior walls, roof or exits.

3. All other positions that are more appropriately identified by other classification specifications.

D. Entrance Into This Classification

Employees enter positions in this classification through competition.

II. DEFINITION

ELECTRICIAN

This is journeyman and/or master level electrician work. Positions allocated to this classification are responsible for installing, maintaining, and repairing electrical wiring, equipment, and fixtures; diagnosing malfunctioning systems, apparatus and components; and ensuring work is in accordance with relevant codes. To perform electrical work other than what is identified in [s. 101.862\(4\), Wis. Stats.](#), a person will need to be licensed by the State of Wisconsin as a Master Electrician *or* be licensed by the State of Wisconsin as a Journeyman Electrician *or* enrolled by the Department of Safety and Professional Services (DSPS) as a registered electrician while performing those duties under the supervision of a Master Electrician.

Employees in this classification perform electrician work under general supervision and are assigned any combination of the following duties, in accordance with the employee's licensure/registration status and [s. 101.862, Wis. Stats.](#)

- Assemble, install, test, and maintain electrical or electronic wiring, equipment, appliances, apparatus, and fixtures, using hand tools and power tools and aerial equipment.
- Install electrical circuitry including panel boards, circuit breakers, conduit, wire, switches, fuses, receptacles, lighting fixtures, motor starters, etc.
- Make electrical connections to heating, ventilating, air conditioning, laboratory, and other fixed and movable equipment.
- Install special electrical systems such as fire alarm, class bell, audio, and audio-visual, digital control, clock, emergency alarm, and telephone systems.
- Conduct preventative maintenance on assigned electrical systems such as elevators, fire alarm, emergency power, and high voltage distribution.
- Diagnose malfunctioning systems, apparatus, and components, using test equipment and hand tools, to locate the cause of a breakdown and correct the problem.
- Connect wires to circuit breakers, transformers, or other components.
- Inspect electrical systems, equipment, and components to identify hazards, defects, and the need for adjustment or repair, and to ensure compliance with codes.
- Advise management on whether continued operation of equipment could be hazardous.
- Test electrical systems and continuity of circuits in electrical wiring, equipment, and fixtures, using testing devices to ensure compatibility and safety of system.
- Maintain current electrician's license or registration status, as determined by job duties.
- Plan layout and installation of electrical wiring, equipment and fixtures, based on job specifications and local codes.
- Prepare sketches or interpret blueprints to determine the location of wiring and equipment and to ensure conformance to building and safety codes.

- Inspect, maintain and repair electrical equipment such as wiring, motors, fans, exhausters, switchboards, switchgears, pumps, and all types of electrical power equipment including relay systems and other protective apparatus used in the production of electricity.
- Lay out, assemble, install and test electrical fixtures, apparatus, control equipment and wiring used in the alarm systems, communication, light and power systems of buildings or other construction projects.
- Plan proposed installation from blueprints, sketches or specifications adapt and install conduit.
- Inspect and repair elevators.
- Install and repair overhead wires, high-voltage cables, transformers, and associated electrical line accessories.
- Install and maintain underground conduit, wires, cables, transformers, high voltage splices, and associated switchgear and protective equipment.
- Install and maintain concrete, aluminum, steel and wood poles, and other equipment used in connection with lighting, traffic control and communication systems.
- Install and maintain traffic signals, controllers, detectors, various types of motors and auxiliary equipment.
- Inspect and test signal controllers including troubleshooting signal operation problems.
- Maintain and monitor signal pre-emption systems.
- Locate underground electrical facilities in the field.
- Direct and train apprentices, helpers and other assistants to install, maintain or repair electrical wiring, equipment, and fixtures. Direct and inspect work completed by electrical contractors.
- Direct and inspect work completed by electrical contractors.
- Perform business management duties such as maintaining records and files, preparing reports and ordering supplies and equipment.
- Respond to electrical emergencies during nonstandard business hours.

III. QUALIFICATIONS

The qualifications required for these positions will be determined at the time of recruitment. Such determinations will be made based on an analysis of the goals and worker activities performed, an identification of the education, training, work, or other life experience which would provide reasonable assurance that the knowledge and skills required upon appointment, including the requirements set forth in [s. 101.862, Wis. Stats.](#), have been acquired.

NOTE: Some positions may require obtaining and maintaining a commercial driver's license.

IV. ADMINISTRATIVE INFORMATION

This classification was created in the 1970s. The specification was modified effective May 14, 2006 and announced in Bulletin OSER-0093-MRS/SC to convert the specification to the format used in 2006, provide more specific work examples, reinforce the requirements of positions performing skilled trades work and better distinguish the work of skilled trades from that of the semi-skilled trades (such as Facilities Repair Worker, Facilities Maintenance Coordinator, etc.). This classification was modified effective April 6, 2014 and announced in Bulletin OSER-0360-MRS/SC to update the definition language and special qualifications with current licensure requirement.