Summary of Duties: Operates, cleans, lubricates, and performs other minor routine maintenance to an electrically-operated bascule bridge; operates an interlocking railroad block signal system; and does related work.

Distinguishing Features: A Drawbridge Operator's work is distinguished from that of other heavy electrical machinery operators in that it is concerned with the maintenance, operation, and minor repair of a bascule bridge and its appurtenant machinery and signaling equipment. The duties are prescribed in the detailed rules and regulations of the U.S. Department of Transportation and U.S. Coast Guard, the code of Federal Regulations, Title 33, Section 117 and supplemented by written orders from supervisors. The operation of the interlocking signals controlling railroad traffic is prescribed in instructions from the railroad company using the drawbridge. A Drawbridge Operator receives supervision through periodic inspection of equipment and review of detailed operating records, rather than by actual observation of the work.

Examples of Duties: Operates the Badger Avenue Drawbridge by maintaining constant vigilance from horn and hand signals from boats and for whistle signals from trains approaching the bridge; indicates by horn signals whether the bridge can or cannot be opened immediately; operates a siren, street traffic signals and railroad signals to warn land traffic; lowers traffic gates and opens train derails; raises and lowers bridge leaves controlled by two gradated switches with brakes;

Inspects the drawbridge and its mechanical and electrical equipment; cleans, oils, and greases operating machinery, including line shaft, rack reduction and gear bearings, safety devices, and street and railroad traffic signal lights; adjusts brakes and replaces operating brake rods; works on and around open electric control and panel boards serviced by 240 volts and 1200 amps while doing running maintenance such as cleaning contacts and replacing fuses; makes minor emergency electrical repairs;

Keeps records of boats and trains passing through or over the bridge together with the opening and closing times; maintains log of radio communications notifies the Marine Exchange by telephone of commercial ship movements; notifies concerned corporations, ship companies, government agencies, private persons, and the Union Pacific Railroad
whenever bridge operation must be stopped for emergency repairs; receives and relays orders from tugboat companies to their boats; occasionally prepares reports of accidents occurring on the bridge; occasionally testifies in court in suits involving the bridge; and may be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: A good knowledge of the Department of Transportation, "Bridge Regulations Governing the Operation of Drawbridges Across Navigable Water of the United States in the State of California"; a working knowledge of the operation and maintenance requirements of large electric motors and their control devices, together with the ability to make minor repairs; a working knowledge of the rules of the road for inland water in California and of the various types of vessels; the ability to learn the operating methods, practices, and maintenance requirements of a double-leaf bascule bridge and the operating methods and practices of an interlocking-railroad signal system; the ability to learn and apply detailed rules, regulations and instructions; the ability to adopt effective courses of action in emergencies; and the ability to keep records and make reports.

Three years of experience in the operation and maintenance of heavy electrical equipment is required.


Physical Requirements: Strength to perform average lifting of up to 15 pounds and occasionally over 25 pounds; body agility and equilibrium involved in activities such as climbing and balancing; back and leg coordination involved in activities such as stooping, kneeling, crouching, and crawling; arm, hand, and finger dexterity with both hands involved in activities such as reaching, handling, and feeling; good speaking and hearing ability; and good eyesight.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare
what all of the duties and responsibilities of any position shall be.