Class Code: 5371
Revised: 6/2/2026

SUBSTATION AND COMMUNICATIONS SUPERVISOR

PURPOSE AND NATURE OF WORK

Responsibilities include the operation, inspection, maintenance, and repair of electric power transmission and distribution substation equipment, including transformers, relays, communications/control systems, and protective devices. The position also provides oversight of transformer shop operations, including the evaluation, repair, reconditioning, testing, and oil processing of pole-mounted and pad-mounted transformers to ensure system reliability and compliance with applicable standards.

Work requires participation in the design and planning of electric power transmission and substation installations. The incumbent is required to work in all weather conditions, be on 24-hour call, and work adjacent to high-voltage equipment. Supervises and trains skilled workers, ensures adherence to safety and operational procedures, and maintains detailed and accurate records. Work is performed under the general direction of the Energy Control, Substation, and Metering Supervisor.

ILLUSTRATIVE EXAMPLES OF WORK (Note: These examples are intended only to illustrate the various types of work performed by incumbents in this class. All of the duties performed by any one incumbent may not be listed, nor does any incumbent necessarily perform all of these duties.)

Supervises and trains skilled workers in the installation, calibration, operation, and maintenance of electrical substation equipment, protective relays, and related control systems. Tests and maintains current and potential transformers; digital and induction type relays; oil, gas, and vacuum circuit breakers; power transformers; and fiber optic and radio frequency communications equipment. Ensures proper isolation and testing procedures are followed when performing electrical testing.

Oversees transformer shop operations, including the evaluation, disassembly, repair, reconditioning, oil processing, and electrical testing of pole-mounted and pad-mounted transformers. Ensures all transformer work meets established standards, specifications, and safety requirements.

Supervises the construction and maintenance of substations, buildings, and switchyards. Conducts and supports formal apprenticeship and workforce development programs focused on materials, methods, and safe work practices used in electric transmission and distribution systems.

Prepares equipment specifications and develops, manages, and administers budgets for substation and transformer shop operations, including planning, forecasting, and allocation of resources. Implements and supports compliance programs related to applicable NERC standards. Maintains detailed records on compliance activities, as well as all construction, repair, maintenance, testing, and transformer shop operations.

NECESSARY KNOWLEDGES, ABILITIES, AND SKILLS

- Considerable knowledge with standard methods, practices, and materials applicable to electric power transmission and distribution systems.
- Considerable knowledge working with hazards and protective devices associated with electric power transmission and distribution systems.
- Experience in electronics and associated systems.
- Demonstrated skills in the use of electrical test equipment, including proper isolation, testing procedures, and safety practices.
- Knowledge of transformer shop operations, including evaluation, repair, reconditioning, testing, and oil processing of pole-mounted and pad-mounted transformers.

- Ability to read, interpret, and work from schematics, blueprints, and technical specifications.
- Ability to supervise, train, and evaluate the work of technicians and skilled personnel.
- Ability to develop and maintain effective working relationships with employees, contractors, and personnel from other utility systems.
- Knowledge of applicable NERC regulations governing electric transmission and distribution systems.
- Ability to maintain accurate, detailed, and thorough records and documentation.

DESIRABLE TRAINING AND EXPERIENCE

Completion of an accredited four-year college curriculum in electrical engineering, electronics or related field and progressively responsible experience in electric power substation design, operation, and maintenance; or an equivalent combination of training and experience.