

## STATE OF SOUTH DAKOTA CLASS SPECIFICATION

**Class Title: Communications Engineering Supervisor**

**Class Code: 40817  
Pay Grade: GK**

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### **A. Purpose:**

Directs and coordinates the technical operation, maintenance and installation of broadcasting, transmitter and radio equipment and the maintenance of microwave and satellite systems for an entire network to meet network standards and ensure compliance with FAA and FCC rules and regulations.

### **B. Distinguishing Feature:**

The Communications Engineering Supervisor directs the activities of engineering/maintenance staff responsible for the South Dakota Public Broadcasting's transmission systems or the State Radio network and has overall responsibility for network design functions and network television or radio transmitter and microwave sites in the state.

The Communications Engineer is responsible for the engineering and repair of broadcasting systems and directing Communications Maintenance Technicians in the maintenance of broadcast transmission equipment statewide.

### **C. Functions:**

*(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)*

1. Supervises the technical operation, maintenance, and installation of broadcasting and transmitter equipment and the maintenance of radio, microwave and satellite systems for an entire network to ensure an optimum transmission signal is achieved and maintained.
  - a. Reviews studies and makes decisions concerning equipment replacement needs for the network broadcast system.
  - b. Ensures network has adequate equipment available for proper operation.
  - c. Ensures all network equipment is functioning properly.
2. Plans and coordinates technical construction and facilities improvement to ensure maximum broadcast capability at the lowest possible cost.
  - a. Designs broadcast systems.
  - b. Prepares specifications and cost estimates.
  - c. Reviews proposals and assists in the selection of contractors.
  - d. Approves equipment requisitions.
  - e. Sets installation timeliness and guidelines.
3. Serves as network expert in causes of equipment failures and directs repairs to ensure maximum on-air capability.
  - a. Directs the running of diagnostic tests and the visual inspection of equipment to evaluate failures.
  - b. Directs the repair or replacement of defective components.
  - c. Ensures network has an adequate inventory of spare parts and supplies.
4. Maintains compliance with federal regulations to ensure FCC and FAA requirements are met.

- a. Supervises the preparation of the technical portions of FCC and FAA documents and correspondence.
  - b. Advises governing board and administrative staff on appropriate legal and FCC and FAA matters to keep them informed of changed or new requirements, and makes recommendations regarding technical aspects of network operations.
  - c. Reviews the network's operation and maintenance logs to ensure compliance.
5. Supervises subordinate staff to ensure the objectives of the work unit are met.
- a. Interviews and selects staff to be hired.
  - b. Trains and provides work direction.
  - c. Approves leave requests.
  - d. Addresses employee problems and recommends disciplinary actions.
  - e. Conducts performance appraisals and completes performance appraisal documents.
6. Performs other work as assigned.

**D. Reporting Relationships:**

Reports to the Director of Engineering and Technical Services. Supervises Communications Engineers who are responsible for the engineering and repair of broadcasting systems statewide, and Communications Maintenance Technicians who maintain and repair radio and network broadcast systems.

**E. Challenges and Problems:**

Challenged to manage the efficient operation and repair of a statewide network of radio and television broadcasting facilities; ensure preventive maintenance is conducted on a recurring basis to keep all of the equipment in the best operating condition possible; visit over 40 locations statewide to conduct inspections and compliance reviews; stay abreast of increasingly complex electronic systems in the rapidly changing broadcast industry; select the most cost effective technology to ensure the maximum capability is achieved at the lowest possible cost; and maintain optimum broadcasting capability with a network of aging transmitters.

Problems include directing the repair actions of Communications Maintenance Technicians or Communications Engineers at remote sites by diagnosing problems based on information provided over the phone; ensuring the repair efforts of the network stay within budget constraints; and covering a large geographical area with a small staff.

**F. Decision-making Authority:**

Decisions include determining if equipment is operating within tolerances; what equipment adjustments to make; purchasing recommendations; hiring recommendations; assignment of staff and resources; how to best manage overall network maintenance and repair; approval of downtime for emergency repair; when new equipment is necessary; how to repair malfunctioning equipment; interpretation of FCC and FAA rules and regulations; and how much money to request each fiscal year.

Decisions referred include final approval of network policies, approval of major purchases, final personnel decisions, and approval of budget requests.

**G. Contact with Others:**

Weekly contact with private consultants, manufacturers, vendors, and other state agencies to discuss project requirements and status; and weekly contact with manufacturers' technical support staff for detailed technical assistance.

#### **H. Working Conditions:**

Typical office environment with occasional travel to transmitter sites across the state. May be exposed to high voltage, adverse weather conditions, climbing towers, and lifting heavy equipment. May be required to work long hours in emergency situations.

#### **I. Knowledge, Skills, and Abilities:**

Knowledge of:

- the principles of engineering with electronics fundamentals;
- television and radio station technical operation and maintenance techniques;
- radio system network technical operations;
- computer operational and technical skills;
- FCC and FAA rules and regulations.

Ability to:

- direct and supervise staff;
- establish and maintain effective working relationships;
- develop and implement network maintenance and equipment replacement plans.