

Educational Communications Board
81201 – Broadcast Maintenance Engineer (Southern Region)
Media Telecommunication Technician

Position Summary

The position provides construction, maintenance and repair support for a wide range of predominately high power Radio Frequency electronic equipment and systems for the ECB including DTV, Broadcast Interconnect, EAS, AMBER, FM, State/Federal All Hazards Radio, satellite downlink systems, and Wisconsin Public Radio facilities. This position will be expected to progressively develop technical expertise in analysis, design, and modification of content distribution systems, media interconnect systems, and associated RF analog and digital program delivery and transmission monitoring equipment. Occasional Standby or on-call status and overnight work may be required.

This position reports to the Regional Technical Manager and works closely with senior level staff to complete duties. Work is performed under close, progressing to limited supervision.

Goals and Worker Activities

45% A. Broadcast Systems Maintenance, Test, and Repair

A1. Assist in planning and perform routine and preventive maintenance on all equipment and systems.

A2. Test components of malfunctioning transmission and delivery systems to diagnose impairments using test equipment such as: oscilloscopes, spectrum analyzers, time domain reflectometers, multi-meters, etc., as directed.

A3. Disassemble and repair equipment, including equipment with potentially lethal voltages and dangerous moving machinery and are only performed with a safety observer present.

A4. Assist in planning and performing an intensive preventive and routine maintenance program to assure that all components of the delivery system are in proper operating condition and provide a uniform level of performance. This includes routinely checking equipment to note trends for early diagnosis of impairments.

A5. Observe and develop knowledge of applicable safety standards, rules and guidelines recommended or required by FAA, FCC, OSHA, DWD, Wisconsin State Employees Union, and equipment manufacturers. With direction, work with potentially dangerous or energized equipment for testing and maintenance procedures will only be performed with a safety observer present.

A6. Monitor outside contractors and vendors in the construction, repair and maintenance of all equipment and systems, including towers to ensure compliance with contract and industry standards.

25% B. Monitors, Reports, and Documents Systems Status

B1. Monitor and operate remote control systems for outage and impaired conditions. Responds to impairment scenarios immediately based on priority. Promptly report and updates outage and impaired conditions in the proper discrepancy systems.

B2. Assure all systems are technically compliant as required by the FCC and FAA.

B3. Accepts the responsibility and performs duties of the Chief Operator or Alternate Chief Operator as assigned by supervisor and/or ECB leadership.

B4. Monitor and operate delivery system equipment to include FM, DTV, BIC, EAS, All Hazards Radio, FM and/or TV translators, radio STL & ICR, TV STL & ICR.

20% C. Plan, perform, and contract routine and preventive maintenance and services for all regional sites, facilities, grounds and systems.

C1. Assist in planning for contract maintenance on building physical systems such as HVAC, plumbing, and electrical; site specific telecommunications wiring systems; telephones and computer networking equipment; cable television wiring.

C2. Assist in the planning, scheduling and contract for janitorial, snow removal and grounds keeping services. Assist in services and contract for emergency services as required.

C3. Perform or contract for emergency repairs for buildings, grounds, and systems.

10% D. Miscellaneous

D1. Assure high degree of site cleanliness.

D2. Prepare records and reports.

D3. Update system drawings and maintenance documentation.

D4. Coordinate maintenance and repair on assigned state vehicle.

D5. Provide training and support to other Media Telecommunications Technicians.

D6. With guidance from senior staff, design, constructs, modify, and install delivery system and ancillary equipment.

D7. Purchases and plans for purchases of delivery system equipment.

D8. Performs other duties and activities as required.

Knowledge, Skills and Abilities Required

1. Knowledge of High power Radio Frequency (RF) systems.
2. Knowledge of Technologies related to broadcasting, including those related to distribution, transmission and remote control of television and radio distribution networks.
3. Knowledge of Analog and digital electronic systems.
4. Knowledge of IT and Networking systems.
5. Ability to work from and interpret diagrams, and electrical prints.
6. Knowledge of Safety and security best practices as applied to broadcast facilities.
7. Knowledge of Tower structural and tower worker safety standards.
8. Knowledge of FCC and FAA rules and regulations.
9. Knowledge of NEC and NFPA rules and regulations.
10. Ability to provide effective, clear and accurate written and verbal communications.
11. Ability to work in a team environment.
12. Ability to maintain effective working relationships with other professionals internal and external to the organization.
13. Knowledge encompassing complex personal computer applications including databases, spreadsheets, word processing, presentation and e-mail.
14. Knowledge of STAR/PeopleSoft.
15. Ability to prioritize competing tasks and objectives.
16. Ability to work on multiple tasks simultaneously and independently.
17. Ability to perform complicated tasks under time pressure.
18. Ability to pay extreme attention to detail.

Special Requirements

- This position requires a variable, non-traditional work schedule including some nights and weekends.
- A valid Wisconsin driver's license, or the ability to obtain one's own timely transportation throughout the work day, is required.