

Iowa Department of Administrative Services – Human Resources Enterprise  
Job Classification Description

## Transmitter Engineer

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### Definition

Performs routine duties required in the operation, diagnosis, repair, and maintenance of facilities and broadcast equipment for Iowa PBS at network transmitter and translator sites, with specialization in audio, video, IP-based, digital, remote control, and computer-based engineering at those sites; performs related work as required.

*The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

### Work Examples

Operates, diagnoses, and makes minor repairs/adjustments on transmission, electronic, and electrical equipment supporting Iowa PBS broadcast and digital media distribution.

Coordinates site access and schedules with contractors and service providers at transmitter/translator sites.

Installs/integrates new equipment at transmitter/translator sites associated with the production and broadcasting of educational radio/television programs.

Verifies day-to-day compliance with Federal Communications Commission (FCC) and Federal Aviation Administration (FAA) regulations applicable to transmitter/translator facilities; maintains required records for the FCC and FAA.

Diagnoses and repairs building mechanicals (e.g., HVAC, plumbing, transmitter-cooling system, electrical and pneumatic controls, polyphase motors, etc.).

Maintains inventory and purchases spare parts/supplies for operation of transmitter/translator facilities.

Responsible for the general cleanliness and upkeep of transmitter/translator sites and timely completion of paperwork necessary for normal facility operations (e.g., vehicle reports, purchase requisitions, petty cash reports, etc.).

Provides field assistance to other Iowa PBS transmitter engineers.

### Competencies Required

#### Knowledge:

- Communications and Media – Media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.
- Engineering and Technology – The practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- English Language – Structure and content of the English language including the meaning and spelling of words, and rules of composition and grammar.
- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.

Abilities:

- Control Precision – Quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Flexibility of Closure – Identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Inductive Reasoning – Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Manual Dexterity – Quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- Number Facility – Add, subtract, multiply, or divide quickly and correctly.
- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem.
- Speech Clarity – Speak clearly so others can understand you.
- Speech Recognition – Identify and understand the speech of another person.
- Visualization – Imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Written Comprehension – Read and understand information and ideas presented in writing.
- Written Expression – Communicate information and ideas in writing so others will understand.

Skills:

- Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.
- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Equipment Maintenance – Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
- Installation – Installing equipment, machines, wiring, or programs to meet specifications.

- Monitoring – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Operation and Control – Controlling operations of equipment or systems.
- Operations Monitoring – Watching gauges, dials, or other indicators to make sure a machine is working properly.
- Quality Control Analysis – Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
- Reading Comprehension – Understanding written sentences and paragraphs in work-related documents.
- Repairing – Repairing machines or systems using the needed tools.
- Service Orientation – Actively looking for ways to help people.
- Speaking – Talking to others to convey information effectively.
- Systems Evaluation – Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.
- Technology Design – Generating or adapting equipment and technology to serve user needs.
- Writing – Communicating effectively in writing as appropriate for the needs of the audience.

### Minimum Qualification Requirements

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

- 1) Two years of full-time work experience in operating, maintaining, or repairing complex electronic equipment in a radio or television transmitter/translator or network studio.
- 2) Graduation from an accredited college or university with an associate's degree in electronic technology, broadcast engineering technology, or a closely-related field.
- 3) All of the following (a and b):
  - a. One year of full-time work experience in operating, maintaining, or repairing complex electronic equipment in a radio or television transmitter/translator facility or network studio; and
  - b. Possession of a certificate in electronic technology, broadcast engineering technology, or a closely-related field from a recognized technical, military, business, college, or university certificate program.

### Notes

Employees in this class are required to possess and maintain a current, valid Driver's License.

*Effective date: 01/26 KC*