

**CLASS SPECIFICATION**  
**Signals and Street Lighting Technician**

FLSA Status: Covered  
Union Representation: City of Portland Professional Employees Association (COPPEA)

**GENERAL PURPOSE**

Under direction, performs highly technical work on complex traffic signal control and communications systems; performs research on a wide variety of electronic and communications equipment and systems and prepares comprehensive reports and recommendations on maintaining, upgrading and replacing existing systems; and performs related duties as assigned.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Assists in determining Intelligent Transportation System communication needs of the Office of Transportation and design systems to meet those needs. Technology may include microwave, mobile radio, data circuits and equipment, CATV systems, television surveillance equipment, antenna systems and telephone systems.
2. Performs design on complex communications systems in multiple technological areas; prepares specifications for equipment procurement and reviews responses from vendors; makes recommendations regarding purchase of systems, monitors construction and approves final acceptance.
3. Monitors operation of the traffic signal system computer and analyzes operating failures and errors; takes remedial actions to correct identified problems; recommends improvements in system design and communications protocols; tests various existing systems.

**MINIMUM QUALIFICATIONS**

**Knowledge of:**

1. Current communications systems engineering technology and related engineering disciplines.
2. Practices, procedures and equipment used in electronic equipment testing, maintenance and repair.
3. Federal, state and local regulations regarding radio communications.
4. Digital communication techniques.
5. Antenna and transmission line theory and operations; microwave system design; cable television plant, distribution, head-in, and broadband amplifiers.
6. Computer terminals, modems, multiplexers and local area networks.

7. Transmission medium design and maintenance, including combiners, cavities and multicouplers.
8. Antenna system design, installation and maintenance, including combiners, cavities and multicouplers.
9. Traffic signal systems and control strategies.

**Ability to:**

1. Diagnose system problems in a variety of electronic equipment, such as microwave, radio data circuits and equipment, CATV systems, television equipment, antenna systems and mobile radio systems.

**Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school, trade school or vocational school, or G.E.D. equivalent and supplemented by courses in engineering technology; and four years of progressively responsible engineering technician experience; or an equivalent combination of training and experience. Experience in a public agency is preferred.

**Licenses; Certificates; Special Requirements:**

A valid state driver's license may be required for certain assignments.

**PHYSICAL AND MENTAL DEMANDS**

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

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**Class History:**

Adopted: 10-20-00 Engineering Technician III (3109) – Signals specialty created.  
 Revised: 07-01-01 Spec revised as part of the COPPEA classification and compensation study. Signals and Lighting Technician (6170) class created from the following COPPEA classes:  
                   3109 Technician III (Signals specialty)  
                   3109 Technician III (Engineering specialty)  
 Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.  
 Revised: 08-07-06 Revised FLSA status from “Non-exempt” to “Covered.”  
 June 2009 - Change Job Class number from 6170 to 30000402, due to system change.