



Class Summary

The responsibilities of this classification include assisting in and performing basic electrical and mechanical work, in a trainee capacity, to diagnose, maintain, repair, rebuild, overhaul, service, inspect and test light rail vehicles and associated electronic systems and equipment.

Distinguishing Characteristics

This is the first of a two-level Rail Electro-Mechanic classification series. Incumbents in this classification receive close supervision and on-the-job training to develop the essential skills required to become a qualified Rail-Electro Mechanic. As incumbents gain experience, they are assigned increasingly responsible work and work more independently in areas where they have demonstrated skill in various phases of light rail vehicle and associated systems maintenance and repair. Work includes assisting in and performing diagnosis, maintenance, repair and overhaul of all mechanical and electrical systems, assemblies and subassemblies of light rail vehicles as well as the associated communication, surveillance and related onboard systems and equipment. Work requires timely completion of and passing, at required achievement levels, all related supplementary training classes, seminars, courses and examinations necessary for successful completion of the training program. Work also requires compliance with all applicable federally mandated safety-sensitive requirements. Work is performed under the supervision of qualified mechanics and higher-level rail vehicle maintenance supervisors.

Examples of Duties (May vary by position)

1. Attend community college courses, seminars and related forms of formalized classroom training; complete all coursework in a timely fashion and at specified achievement levels; complete on-the-job training exercises as requested.
2. Perform safety and preventive maintenance inspections of vehicles, systems and equipment; document defects observed, maintenance performed and repairs made.
3. Test, maintain, repair and overhaul light rail vehicle electrical, electronic and mechanical systems and equipment in accordance with schematic drawings, wiring diagrams, operations manuals and manufacturer instructions.
4. Repair, replace or modify electronic and electrical components and defective parts for a variety of equipment and systems controls; troubleshoot analog and solid-state electronic systems; install special electronic testing systems; install communication devices and equipment.
5. Troubleshoot analog and solid-state electronic systems; service and maintain microprocessor control systems; inspect new microprocessor and solid-state systems installed by contractors; calibrate and repair test equipment.
6. Operate computers for testing and diagnosing equipment malfunctions as well as fault log management and related data input and retrieval; prepare various activity and status reports; document defects and repairs performed on inspection forms, work orders or in designated automated systems.
7. Re-rail derailed trains and trucks.
8. Operate and maintain shop equipment and tools; prepare time and material cost estimates; maintain parts inventory and automated inventory records; maintain shop areas for cleanliness and safety.

9. Perform other duties as assigned.

Knowledge/Skills

Basic knowledge of mechanical principles and repair methods, standards and practices

Basic knowledge of the diagnostic tools, methods and equipment use in equipment repairs as well as shop safety practices

Develop knowledge of the mechanical and electrical systems, assemblies and subassemblies of light rail vehicles as well as the associated communication, surveillance and related onboard systems and equipment

Develop knowledge of analog and digital electronics and solid-state control circuitry and the related testing, inspection and repair principles, methods and techniques

Communication skills

Customer service skills

Interpersonal skills

Problem solving and analytical skills

Develop skills required to diagnose, repair and overhaul rail vehicle systems, components and allied equipment

Skill in the use of hand and power tools used in mechanical and electronic repair

Skill in basic mathematics

Skill in working with a variety of individuals from diverse backgrounds

Skill in establishing and maintaining effective working relationships

Basic computer skill required to enter and extract information from automated vehicle maintenance systems and related business software applications

Licensing, Certification and Other Requirements

Washington State Driver License

Ability to qualify for Commercial Driver License, Class B with required endorsements and Light Rail Maintenance Operator Certification

Must pass a post-offer, pre-employment physical examination

Must pass drug and alcohol testing provisions for safety sensitive positions as required by the U.S. Department of Transportation, 49 CFR Parts 40 and 655

Willingness and availability to work on weekdays, nights, weekends and holidays during the term of and following the training program

This is a classification specification and not an individualized job description. Additional minimum qualifications may be established for individual positions based on business needs and are specified in position announcements as appropriate.

FLSA Designation**Non-Exempt****Service Status**

Career Service

Levels within same series

Rail Electro-Mechanic – Trainee, Rail Electro-Mechanic

Class History

Created 04/2011