**Class Summary**

The responsibilities of this classification include performing skilled journey level work to troubleshoot, maintain, repair, upgrade, and perform comprehensive preventive maintenance on rail electrical systems as well as electrical systems and equipment in Light Rail shops, offices, park and ride lots, and tunnels.

**Distinguishing Characteristics**

This is the second level in a four level classification series. This level is distinguished from the Rail Electrical Worker Lead in that incumbents in the Rail Electrical Worker-Lead classification assign and coordinate the work of the Rail Electrical Worker and the Rail Electrical Worker Helper employees.

**Examples of Duties**

*In addition to the duties listed below, incumbents in this classification may be required to perform all or some of the duties contained in the Utility Line Worker-Helper classification:*

1. Maintain LR Overhead Contact System (OCS); maintain light rail overhead lines and associated components, underground feeders, switches, electrical wiring and systems including a variety of single phase, three phase and DC systems.
2. Perform routine inspection, maintenance, repair and upgrades to OCS components such as messenger wire, contact wire, section insulators, pole and enclosure mounted switches, air gaps, insulated and un-insulated overlaps, poles, and associated equipment.
3. Perform inspections, maintenance and upgrades of substations and their components such as switches, transformers, rectifiers, fuses, relays, programmable logic controllers (PLCs), batteries, chargers and associated equipment (including the LRV shop stinger system).
4. Maintain and repair equipment in Light Rail shops, offices, park and ride lots, and tunnels.
5. Perform high voltage hot-line work; maintain and repair low voltage systems such as fire and security alarms; maintain and repair auxiliary power plants, transfer switches and uninterruptible power supplies; perform high voltage tests on power cables and equipment; splice, maintain and terminate all types of low and high voltage cable; pull, rack and secure high and low voltage cables in manholes, conduits, tunnels and vaults.
6. Program and troubleshoot PC, PLC and micro-processor based control systems.
7. Manually operate power switches and breakers under direction of the Operations Control Center (OCC).
8. Flag track-way to provide safe rail work zones. Set up work zone traffic control areas.
9. Maintain work records and complete work requests.
10. Load and unload tools, materials and equipment.
11. Trim trees and other vegetation which may interfere with train movement or electrical installations.
12. Maintain appropriate parts stock on assigned vehicles.
13. Operate company assigned vehicles, including hi-rail and aerial lift equipment and perform rolling inspections from raised aerial equipment.
14. Install, troubleshoot, and repair equipment required for underground distribution systems, traction power systems and facilities.
15. Locate, repair and clear faults in underground systems.
16. Bend, install, maintain and repair all types of conduit.
17. Read and interpret distribution maps, feeder maps, and other drawings in performing switching and tagging.
18. Plan, schedule and coordinate activities and work with other trades and divisions.
19. Pump water from vaults and manholes. Perform snow and ice removal.
20. Respond to emergency calls as necessary.
21. May inspect work completed by contractors.
22. Perform other duties as assigned.

**Knowledge/Skills**

Knowledge of national, state and local electrical codes and means of compliance

Knowledge and understanding of electrical theory, high voltage work and modern industrial controls

Knowledge of required safety procedures

Skill in locating underground cables; installing conduit and pulling underground cable

Skill in maintaining overhead lines and components

Skill in the use of tools and equipment required to perform cable splicing and repair

Skill in safely and efficiently utilizing appropriate test equipment

Skill in reading and interpreting blueprints, schematics and drawings

Skill in working in arc flash protection suits

Mechanical skills

Problem solving and analytical skills

Ability to effectively engage in and sustain relationships with people from diverse cultures and socio-economic backgrounds

Ability to work independently and as a team member

Demonstrated proficiency with business applications, such as email and word processing

**Education and Experience Requirements**

Any combination of education and experience that clearly demonstrates the ability to perform the job duties of the position

**Licensing, Certification and Other Requirements**

Washington State Journey Electrician Certificate or Journey Line Worker Certificate or equivalent is required

Washington State Driver’s License

Washington State Driver’s License Class B CDL within six months of appointment

Washington State Flagger’s Certificate within six months of appointment

Forklift Operator’s Certification within six months of appointment

First Aid Certification within six months of appointment

Some licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required

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| **FLSA Designation** | Non-Exempt |
| **Service Status** | Career Service |
| **EEO Code** | 7 |
| **Levels within same series** | Utility Line Worker-Helper  Utility Line Worker or Rail Electrical Worker  Rail Electrical Worker-Lead (Rail Only)  Line Crew Chief |
| **Class History** | 04/2007 – Created  01/2017 – Updated Content |