

# Job Analysis Form

Alternate Format Available



King County

## SHORT FORM FOR PRE-EMPLOYMENT PHYSICALS

PATIENT NAME: \_\_\_\_\_

JOB TITLE: Rail Electrical Worker

DEPARTMENT: Transit/Light Rail

WORK SCHEDULE: 40/week

JOB DESCRIPTION: Rail Electrical Workers safely operate power distribution equipment in support of revenue and non-revenue service; work in high places from mechanical lift devices, support structures and poles; and use common and specialized tools and equipment to perform inspection, maintenance and repair tasks. Rail Electrical Workers prioritize emergency tasks in the absence of on-site supervision.

WORK ENVIRONMENT: Field with some office/vehicle.

**ESSENTIAL FUNCTIONS:** 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. 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. 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). Maintain and repair equipment in Light Rail shops, offices, park and ride lots, and tunnels. 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. Program and troubleshoot PC, PLC and micro-processor based control systems. Manually operate power switches and breakers under direction of the Operations Control Center (OCC). Flag track-way to provide safe rail work zones. Set up work zone traffic control areas. Maintain work records and complete work requests. Load and unload tools, materials and equipment. Trim trees and other vegetation which may interfere with train movement or electrical installations. Maintain appropriate parts stock on assigned vehicles. Operate company assigned vehicles, including hi-rail and aerial lift equipment and perform rolling inspections from raised aerial equipment. Install, troubleshoot, and repair equipment required for underground distribution systems, traction power systems and facilities. Locate, repair and clear faults in underground systems. Bend, install, maintain and repair all types of conduit. Read and interpret distribution maps, feeder maps, and other drawings in performing switching and tagging. Plan, schedule and coordinate activities and work with other trades and divisions. Pump water from vaults and manholes. Perform snow and ice removal. Respond to emergency calls as necessary. May inspect work completed by contractors. Assist other trades as needed. Perform other duties as assigned.

Exposures:

- Outside weather
- Non-weather related temp below 55°
- Non-weather related temp above 75°
- Humidity/dampness
- Moving mechanical parts
- Exposed high places
- Vibration
- Toxic or caustic chemicals
- Confined spaces
- Wet
- Fumes
- Gasses
- Dusts
- Odors
- Radiation
- Mists
- Noise Level 130 DBL
- Explosives
- Other \_\_\_\_\_

Special Requirements:

- CDL
- Respirator use

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PHYSICAL DEMAND	HRS PER SHIFT
Standing	30 min – 6 hours
Walking <input checked="" type="checkbox"/> uneven terrain	30 min – 6 hours
Sitting	30 min – 6 hours
Climbing stairs	15 min – 2 hours
Climbing <u>ladder</u>	15 min – 1 hour
Balancing	0 – 1 hour
Bending/Stooping	0 – 2 hours
Kneeling	0 – 4 hours
Crouching	0 – 4 hours
Crawling	0 – 2 hours
Foot controls	0 – 6 hours
Reaching above shoulders	0 – 2 hours
Reaching waist-shoulder	0 – 2 hours

PHYSICAL DEMAND	HRS PER SHIFT
Reaching knee-waist	0 – 4 hours
Reaching floor-knee	0 – 2 hours
Lifting/Carrying 1-10#	0 – 6 hours
Lifting/Carrying 11-20#	0 – 6 hours
Lifting/Carrying 21-50#	0 – 2 hours
Lifting/Carrying 51-100#	0 – 5 minutes
Lifting/Carrying 100+#	0
Handling	0 – 6 hours
Hand Controls	0 – 6 hours
Fingering <input checked="" type="checkbox"/> keyboarding	0 – 2 hours
Vision to assure safety of others	0 – 6 hours
Hearing to assure safety of others	0 – 6 hours
See Colors	0 – 6 hours

I have reviewed the

following Job Analysis for the above-named candidate.

\_\_\_\_\_  
Physician's Signature

\_\_\_\_\_  
Date