

JOB TITLE: Electrician
EMPLOYEE:
VRC: Kyle Pletz

DOT #: 824.261-010
CLAIM #



KING COUNTY ON SITE JOB ANALYSIS

JOB TITLE Electrician Constructor

JOB CLASSIFICATION Electrician Constructor

DOT TITLE Electrician Constructor

DOT NUMBER 824.261-010

DEPARTMENT Transportation

DIVISION Power and Facilities

OF POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE 18

JOB STATUS

Full Time, Career Service

ADDRESS OF WORKSITE

2255 4th Avenue S.
Seattle, WA 98134

CONTACT'S NAME Archie Alexander

CONTACT'S PHONE 206-263-4611

EMPLOYER JOB TITLE Chief of Power

DATE COMPLETED 9/13/02

VRC NAME Jeff Casem

DATE REVISED 6/10/09

WORK HOURS

Monday through Friday 7:00am to 3:30pm, 4:00am to 12:00pm and 3:30pm to 11:30pm. Weekend shifts are 7:00am to 3:30pm.

OVERTIME

Required on an emergency basis and optional approximately on shift per month. Fair Labor Standards Act, Non-Exempt (hourly).

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JOB DESCRIPTION

Performs skilled, journey-level installations on a diverse range of electrical systems; meets all requirements of the National Electrical Code, state and local standards both in new construction and remodel settings. Maintains, troubleshoots and repairs electrical systems in many different types of occupancies.

ESSENTIAL ABILITIES FOR ALL KING COUNTY JOB CLASSIFICATIONS

1. Ability to demonstrate predictable, reliable, and timely attendance.
2. Ability to follow written and verbal directions and to complete assigned tasks on schedule.
3. Ability to read, write & communicate in English and understand basic math.
4. Ability to learn from directions, observations, and mistakes, and apply procedures using good judgement.
5. Ability to work independently or part of a team; ability to interact appropriately with others.
6. Ability to work with supervision, receiving instructions/feedback, coaching/counseling and/or action/discipline.

JOB SPECIFIC REQUIREMENTS

Graduation from a recognized electrician or utility constructor apprenticeship program with current journeyman electrician certificate from the Washington State Department of Labor and Industries. Two years of industrial or utility control experience. Experience working with high voltage systems is desired. A valid Washington State driver's license is required. The employee must obtain a Seattle Fire Department Type FA-1 Fire and Line Safety Certificate by completion of the sixth month probationary period. This position requires lifting and/or carrying objects up to 100 pounds with assistance.

ESSENTIAL FUNCTIONS Listed in order of importance

1. Maintains and repairs substation transformers, switchgear and relays. Also installs, maintains and repairs electrical systems and equipment in Metro shops, offices and yards.
2. Maintains all electrical wiring on Metro properties in proper working order. Includes all types of single phase and three phase circuits for lighting and power with voltages up to 26KV AC and 750 V DC.
3. Performs routine inspection and maintenance of substations and their components, such as switches transformers, diodes, fuses, relays, stationary batteries, charges etc.
4. Maintains and repairs auxiliary power plants, transfer switches and uninterrupted power supplies.
5. Maintains and repairs low voltage systems, such as security alarms, intercom and public address equipment, etc.
6. Evaluates existing equipment and provides recommendations regarding future electrical demands and costs.

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7. Adheres to all prescribed safety procedures; safely operates and maintains power tools and test equipment.

NON-ESSENTIAL FUNCTIONS

Participating in various committees.

TOOLS, MACHINES, EQUIPMENT, PRODUCTS, AND SERVICES USED

Various hand tools, roto-hammer, hacksaw, pipe benders, tool belt, various electrical panels, shovel, forklift, batteries, breakers, light bulbs, electric motors, hardware such as screws and bolts, ladder, various lamps and fixtures, drill, spools of wire, bundles of conduit, boom truck, County van, ~~tool belt~~ tool belt, tool bucket, gloves, hearing protection, safety goggles, power tools, cordless power tools, voltage sensors, shop vacuum, computer, junction boxes, various electrical parts, electric impact driver, hand truck, tri-stand, saws-all, cleaning solutions, extension lamp extractor, various two-way radios, telephone, fax machine, copy machine, voltage meter and boom lift/man lift.

PHYSICAL DEMANDS AS JOB IS TYPICALLY PERFORMED

Continuously = occurs 66-100% of the time

Frequently = occurs 33-66% of the time

Occasionally = occurs 1-33% of the time

Rare = may occur less than 1% of the time

Never = does not ever occur (such demands are not listed)

This job is classified as

Medium to heavy in this particular instance.

Standing

Frequently on cement, dirt, gravel, linoleum, carpet and uneven surfaces for up to 2 hours at a time for up to 4 hours total in a work shift. Most commonly occurs while troubleshooting and wiring panels and electrical equipment.

Walking

Occasionally on cement, dirt, gravel, linoleum, carpet and uneven surfaces for distances for up to 200 yards for up to 15 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while traversing between buildings and work sites.

Sitting

Frequently on an automobile seat or the ground for up to 2 hours at a time for up to 4 hours total in a work shift. Most commonly occurs while driving a County vehicle and working on equipment in low areas.

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Climbing stairs

Rare for up to 2 minutes at a time while climbing up to 4 flights for up to 15 minutes total in a work shift. Most commonly occurs while inspecting electrical equipment in emergency stairwells.

Climbing

Occasionally on a ladder or vehicle to heights of 10 feet for up to 1 minute at a time for up to 30 minutes total in a work shift. Most commonly occurs while entering and exiting a truck, re-lamping and working on electrical equipment in high locations.

Balancing

Continuously on uneven ground and ladders at heights of up to 10 feet for up to 15 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while traversing on uneven ground and balancing on a ladder when working on electrical systems and equipment.

Bending/Stooping

Occasionally on cement, dirt, gravel, linoleum, carpet and uneven surfaces for up to 15 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while working on electrical systems or equipment, such as outlets, in lower locations.

Kneeling

Occasionally on cement, dirt, gravel, linoleum, carpet and uneven surfaces for up to 15 minutes at a time for up to 2.5 hours total in a work shift. Most commonly occurs while working on electrical systems or equipment, such as outlets, in lower locations.

Crouching

Occasionally on cement, dirt, gravel, linoleum, carpet and uneven surfaces for up to 15 minutes at a time for up to 2.5 hours total in a work shift. Most commonly occurs while working on electrical systems or equipment, such as outlets, in lower locations.

Crawling

Rare on cement, dirt, gravel, linoleum, carpet and uneven surfaces for distances of up to 5 feet for up to 10 seconds at a time for up to 10 seconds total in a work shift. Most commonly occurs while inspecting the underside of electrical systems or machinery.

Operating Controls with Feet

Continuously for up to 45 minutes at a time for up to 5 hours total in a work shift while driving a County van, boom truck or vehicle with an automatic transmission.

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Reaching above shoulder height

Continuously for up to 5 minutes at a time for up to 5 hours total in a work shift while re-lamping or rewiring ceilings or upper areas.

Reaching at waist to shoulder height

Continuously for up to 5 minutes at a time for up to 5 hours total in a work shift while driving a County vehicle and working on electrical systems and equipment.

Reaching at knee to waist height

Occasionally for up to 15 minutes at a time for up to 2 hours total in a work shift while troubleshooting, repairing or maintaining electrical systems as well as pulling wire, replacing outlets, digging and working on junctions boxes.

Reaching at floor to knee height

Occasionally for up to 5 minutes at a time for up to 2 hours total in a work shift while troubleshooting, repairing or maintaining electrical systems as well as pulling wire, replacing outlets and working on junctions boxes.

Lifting 1-10 pounds

Frequently for up to 30 minutes at a time for up to 4 hours total in a work shift. Most commonly occurs with weights of 1-4 pounds while using various hand tools such as wire cutters, electrical testers and crimpers.

Carrying 1-10- pounds

Occasionally for distances of up to 200 yards for up to 15 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs with weights of 1-4 pounds while transporting hand tools to and from work sites and the County van.

Lifting 11-20 pounds

Occasionally for up to 10 minutes at a time for up to 1.5 hours total in a work shift. Most commonly occurs with weights of 12-16 pounds while moving various pieces of electrical equipment, manipulating fixtures and moving large spools of wire.

Carrying 11-20 pounds

Occasionally for distances of up to 50 feet for up to 15 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs with weights of 12-16 pounds while moving various pieces of electrical equipment, fixtures, spools of wire and power tools.

Lifting 21-50 pounds

Occasionally for up to 10 seconds at a time for up to 10 minutes total in a work shift. Most commonly occurs with weights of 30-40 pounds while using and manipulating pipe benders, tri-stand and power tools.

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Carrying 21-50 pounds

Occasionally for distances of up to 50 feet for up to 2 minutes at a time for up to 30 minutes total in a work shift. Most commonly occurs with weights of 30-40 pounds while transporting power tools, pipe benders, tri stand and various pieces of electrical equipment to and from work sites and the County van.

Lifting 51-100 pounds

Rare for up to 5 seconds at a time for up to 20 seconds total in a work shift. Most commonly occurs with weights of 60-80 pounds while loading or unloading various pieces of electrical equipment from a County van, hand truck or utility cart. Assistance is available for heavy lifting.

Carrying 51-100 pounds

Rare for distances of up to 10 feet for up to 30 seconds at a time for up to 1 minute total in a work shift. Most commonly occurs with weights of 60-80 pounds while loading or unloading various pieces of electrical equipment from a County van, hand truck or utility cart. Assistance is available for heavy lifting.

Lifting 100+ pounds

Rare for up to 3 seconds at a time for up to 6 seconds total in a work shift. Most commonly occurs with a two-person lift with weights of up to 240 pounds while lifting a junction box on to a dolly or utility cart. Lifting junction boxed may be reduced by manipulating the boxes on to a handcart by pushing/pulling with up to 75 pounds of force.

Pushing and Pulling

Occasionally for up to 15 minutes at a time with a force of up to 120 pounds for up to 30 minutes total in a work shift while pulling up to 200 feet of wire through conduit.

Handling

Frequently for up to 2 hours at a time for up to 4 hours total in a work shift while using various hand tools and pulling wire.

Operating Controls with Hands

Frequently for up to 45 minutes at a time for up to 4 hours total in a work shift while driving a county vehicle with an automatic transmission, operating testing equipment, utilizing switches and using power tools.

Fingering

Frequently for up to 3 minutes at a time for up to 3 hours total in a work shift while using small hand tools, manipulating wires, using wire nuts and writing.

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Feeling

Rare for 30 seconds at a time for up to 2 minutes total in a work shift while locating obscured wires as well as identifying overheating equipment or excessively vibrating machinery, such as an off balance electrical motor.

Talking

Occasionally for up to 30 seconds at a time for up to 1.5 hours total in a work shift while conversing with co-workers and superiors, using a 2-way radio and participating in meetings.

Hearing

Continuously for up to 2.5 hours at a time for up to 7 hours total in a work shift while listening for moving airplanes and vehicles, radio transmissions, alarms, and training.

Tasting/Smelling

Rare for up to 5 seconds at a time for up to 5 minutes total in a work shift while smelling for equipment failure or smoke.

Near acuity—clarity of vision at 20 inches or less

Continuously for up to 30 minutes at a time for up to 5 hours total in a work shift while wiring and trouble shooting electrical equipment systems and machinery.

Far acuity—clarity of vision at 20 feet or more

Continuously for up to 2.5 hours at a time for up to 7 hours total in a work shift while looking for lamps in need of replacement and identifying potential hazards such as moving vehicles and machinery, and while driving a County vehicle.

Depth perception—three dimensional vision

Continuously for up to 45 minutes at a time for up to 6 hours total in a work shift while driving a County vehicle as well as wiring and avoiding potential electrocution.

Color vision—ability to identify and distinguish colors

Frequently for up to 30 minutes at a time for up to 5 hours total in a work shift while identifying color of wires and sodium lamps.

Field of vision—observing an area that can be seen up and down or right or left while eyes are fixed on a given point

Continuously for up to ~~2.5~~ 2.5 hours at a time for up to 7 hours total in a work shift while identifying potential hazards such as moving vehicles and machinery.

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Night vision--seeing after sundown with minimal or no supplemental light sources

Continuously for up to 2.5 hours at a time for up to 7 hours total in a work shift while working at night inspecting street lamps in Park and Ride areas.

TEMPERAMENTS

Directing, controlling, or planning activities of others: Occasionally
Performing repetitive or short-cycle work: Occasionally-Frequently
Influencing people in their opinions, attitudes, and judgments: Occasionally
Performing a variety of duties: Continuously
Working alone or apart in physical isolation from others: Frequently
Working effectively under stress: Frequently
Attaining precise set limits, tolerances, and standards: Frequently
Working under specific instructions: Continuously
Working with others: Occasionally-Frequently
Making judgments and decisions: Continuously

ENVIRONMENTAL FACTORS

Work is performed outside in a variety of weather conditions or in confined areas. The worker is exposed to high voltage. The worker is also exposed to high and exposed places such as lift equipment up to 75 feet above the ground. The noise level ranges from quiet to loud.

Workers are exposed to

Outside weather: Frequently
Extreme cold: Occasionally
Extreme heat: Occasionally
Wet: Occasionally
Humidity/dampness: Occasionally
Fumes: Frequently
Odors: Occasionally
Dusts: Occasionally
Mists: Rare
Gases: Rare
Poor ventilation: Occasionally
Moving mechanical parts: Frequently
Vibration: Frequently
Working in high, exposed places: Occasionally
Toxic or caustic chemicals: Rare

POTENTIAL MODIFICATIONS TO JOB

Lifting assistance is available for heavy lifting.

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_____ Signature & title of evaluator	_____ Date
_____ Signature & title of contact	_____ Date
_____ Signature & title of employee	_____ Date

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HEALTH CARE PROVIDER SECTION

Check all that apply

☐ The employee is released to perform the described duties without restrictions on performance or work hours.

☐ The employee is released to perform the described duties on a reduced schedule. The recommended schedule is:

☐ Temporary until _____ ☐ Permanent as of _____

☐ The employee is released to perform the described job with the following modifications:

☐ Temporary until _____ ☐ Permanent as of _____

☐ The employee is not released to perform the described duties due to the following job functions:

☐ Temporary until _____ ☐ Permanent effective _____

☐ The employee is unable to work in any capacity.
A release to work is: ☐ anticipated by _____ ☐ Not expected

The limitations are due to the following objective medical findings:

Printed or typed name and phone number of Health Care Provider

Signature of Health Care Provider

Date