

# Job Analysis Form

ALTERNATE FORMAT AVAILABLE



## SHORT FORM FOR PRE-EMPLOYMENT PHYSICALS

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

JOB TITLE: Industrial Maintenance Electrician

DEPARTMENT: Natural Resources and Parks

WORK SCHEDULE: 4/10s

JOB DESCRIPTION: Skilled journey-level electrical work by constructing, maintaining and wiring a wide variety of equipment and conducting preventive maintenance programs

WORK ENVIRONMENT: Wastewater Treatment Plant

ESSENTIAL FUNCTIONS: Perform maintenance and repairs on low (0-1000 volts), medium( 1 KV-72.5KV) and high voltage (72.5 KV – 242 KV) switchgear, transformer and distribution systems and power generation systems including standby emergency generating, co-generating systems and ancillary equipment. Install, maintain, troubleshoot, and perform preventive maintenance on motor control centers, including associated control devices such as relays, timers, switches, and interlocks. Install, maintain, troubleshoot, and repairs to variable frequency and direct current drives including adjustment of speed profiles, troubleshooting and repairs to component levels and replacement when needed. Install, troubleshoot, reprogram and modify programmable logic controllers; Design and modify control circuits and related control devices and equipment. Interpret displayed data, troubleshoot, maintain and perform various repairs of distributive control systems and related hardware. Install, modify and upgrade new and existing electrical systems, fixtures and other related electrical equipment in compliance with municipal and national electrical codes. Perform preventive maintenance and repair of uninterruptible power supply equipment including the servicing and replacement of batteries and other battery power sources. Repair and maintain the electrical equipment and controls associated with gas systems including gas compressors, gas drying systems, waste gas burners, flares, vaporizers and boilers. Perform thermal imaging of electrical equipment, interpret results, create reports and repair problems. Review and update program documentation, and engineering drawings to facilitate coordination of maintenance efforts. Coordinate activities, schedule outages, and work cooperatively with those performing other crafts. Write material requests as needed for replacement of defective parts and to obtain additions to spare parts inventory. Provide on the job training for new and other skilled trades positions.

### 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
- Gasses
- Fumes
- Odors
- Dusts
- Mists
- Radiation
- Explosives
- Noise Level 80-100 DBL
- High Voltage

### Special Requirements:

- CDL
- Respirator use

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PHYSICAL DEMAND	HRS PER SHIFT
Standing	30 min. – 7 hrs.
Walking <input checked="" type="checkbox"/> uneven terrain	5 min. – 1 hr.
Sitting	30 min. – 8 hrs.
Climbing stairs	2 min. – 32 min.
Climbing <u>Ladders and equipment</u>	0 – 3 min.
Balancing	45 min. – 1 hr.
Bending/Stooping	45 min. – 1 hr.
Kneeling	45 min. – 1 hr.
Crouching	45 min. – 1 hr.
Crawling	0
Foot controls	30 min. – 1.5 hrs.
Reaching above shoulders	5 min. – 1 hr.
Reaching waist-shoulder	Up to 4 hrs.

PHYSICAL DEMAND	HRS PER SHIFT
Reaching knee-waist	5 min. – 1 hr.
Reaching floor-knee	5 min. – 1 hr.
Lifting/Carrying 1-10#	30 min. – 3 hrs.
Lifting/Carrying 11-20#	30 min. – 2 hrs.
Lifting/Carrying 21-50#	5 min. – 1 hr.
Lifting/Carrying 51-100#	0 – 5 seconds
Lifting/Carrying 100+#	0
Handling	3 – 10
Hand Controls	30 min. – 3 hrs.
Fingering <input type="checkbox"/> keyboarding	0 – 8
Vision to assure safety of others	30 min. – 1.5 hrs.
Hearing to assure safety of others	3 – 10
Other – Pushing and pulling	Up to 30 minutes

I have reviewed the following Job Analysis for the above-named candidate.

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

\_\_\_\_\_  
Date