

COUNTY OF SONOMA - JOB DEMANDS ANALYSIS

JOB CLASSIFICATION: Heavy Equipment Technician
DEPARTMENT: Fairgrounds
DOT OCCUPATION CODE: 620.261-022

DATE COMPLETED: May 2024
DIVISION: Maintenance
PHYSICAL DEMAND STRENGTH RATING: Heavy

INSTRUCTIONS TO MEDICAL PROVIDERS COMPLETING THIS FORM:

Please use the "Medical Provider Use Only" columns to the right of each section and the "Medical Provider's Comments & Signature" Section on the signature page to provide work restrictions by indicating whether there is some portion of each function that the employee can perform; designating whether each restriction is temporary or permanent; and, if restriction is temporary, stipulating the expected duration of work restriction(s). To finalize the form, please provide the name of the employee evaluated and additional comments, as appropriate, then sign and date where indicated.

FREQUENCY RATING:

| Frequency | Percentage of time per shift | Repetition (# times per shift) | 8 Hr Shift | 9 Hr Shift | 10 Hr Shift | 12 Hr Shift |
|------------------|------------------------------|--------------------------------|------------|------------|-------------|-------------|
| Never (N) | n/a | n/a | n/a | n/a | n/a | n/a |
| Occasionally (O) | 1 - 33% | 1 – 100 | 0 - 2.5 | 0 - 3 | 0 - 3.5 | 0 – 4 |
| Frequently (F) | 34 - 66% | 100 – 500 | 2.5 - 5.5 | 3 - 6 | 3.5 - 7 | 4 – 8 |
| Continuously (C) | 67 - 100% | 500+ | 5.5 – 8 | 6 - 9 | 7 - 10 | 8 - 12 |

PART 1 - JOB DUTIES/FUNCTIONS:

| A. Job Duty/Function | B. Job Duty # | C. Freq Rating | D. Equipment or tools used to perform (Describe) | E. Specialized Expertise, License, Certification Required? (Describe) | F. Reason position exists? (Y/N) | G. Essential or Non-Essential | Medical Provider Use Only: For each job duty/function, indicate in this column "Can Perform", is "Temporarily Restricted" from performing, or is "Permanently Restricted" from performing. |
|---|---------------|----------------|--|---|----------------------------------|-------------------------------|--|
| Works outdoors in all types of terrain, vegetation, and weather conditions, performing duties in both daylight and dark/dim conditions. All job duties are performed on-site. | | | | | | | |
| Works irregular shifts, including days, evenings, nights, weekends, and holidays; responds to emergency call-backs; routinely works more than 5 hours of overtime weekly during the Fair and special events. | 1 | Y | | | Y | E | |
| Using good judgment, diagnoses routine electronic and mechanical problems or failures on medium/heavy duty trucks, and heavy construction equipment, either visually or using automotive diagnostic equipment, and generators, both stationary and mobile; makes recommendation for service or repairs required; works at designated work areas and in the field; stands on concrete floor with arms overhead; crawls under | 2 | F | Diagnostic testing equipment, small and large hand tools; power tools. | California Council on Diesel Education and Technology I and II | Y | E | |

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|--|---------------|----------------|---|---|----------------------------------|-------------------------------|--|
| vehicles; bends over vehicle fenders and engines in tight areas; works in a busy, noisy shop environment with vehicles and equipment moving in and out continuously. | | | | certificates | | | |
| Performs routine servicing of medium/heavy duty trucks, on/off road equipment, golf carts, and generators, both stationary and mobile : checks and changes oil and filters; adjusts brakes, steering, clutches, winches, tracks, and related operational and moving parts; applies lubes and greases; services emission control devices; checks fluids; performs alignments; replaces parts according to maintenance schedule; stands on concrete floor with arms overhead; crawls under vehicles; bends over vehicle fenders and engines in tight areas; awkward reaching, bending, kneeling and lifting as required by service; works in a busy, noisy shop environment with vehicles and equipment moving in and out continuously. | 3 | F | Small and large hand tools; power tools | California Council on Diesel Education and Technology I and II certificates | Y | E | |
| Performs the California Highway Patrol Basic Inspection of Terminals required testing; takes vehicles on road test; participates in periodic audit of testing records. | 4 | O | Small and large hand tools | CA Driver's License | Y | E | |
| Repairs and re-builds engines, transmissions, various automotive systems, and other major heavy equipment components: disassembles and reassembles equipment; installs replacements parts and components; repairs engines, transmissions, clutch and brake systems, alternator and starter systems, pump, steering systems, and other major automobile components; repacks wheel bearings; checks and adjust component parts; uses tools of various size and weights; moves parts weighing 75 pounds + using carts, hand trucks, or other lifting devices; stands on concrete floor with arms overhead; crawls under vehicles; bends over vehicle fenders and engines in tight areas; awkward reaching, bending, kneeling and lifting as required by repair; works in a busy, noisy shop environment with vehicles and equipment moving in and out continuously. | 5 | F | Small and large hand tools; power tools, computer | | Y | E | |
| Performs acetylene, arc, and electric welding to fit, fabricate, or repair parts, gates, railings, etc. | 6 | O | Welding equipment and tools, PPE | | N | E | |
| Organizes and performs job duties independently and with good judgment, subject to only periodic check-ins; considers multiple | 7 | C | Computer | | N | E | |

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| solutions for completing the job; makes recommendation on best solution; provides technical guidance and advice to co-workers; ensures work is properly completed; completes all required paperwork. | | | | | | | |
| Communicates in person, by phone, by email and via two-way radio with co-workers and supervisors to coordinate repairs; communicates with co-workers on status of equipment installation and repair projects; communicates with vendors regarding replacement and defective parts, and parts returns. | 8 | C | Computer, phone, two-way radio | | N | E | |
| Responds to emergency requests on various fairground sites; drives to these locations; determines feasibility of performing repairs on site; drives vehicles and equipment in a busy, noisy shop environment; test drives vehicles and equipment to ensure repairs are completed. | 9 | O | Vehicles, | California Drivers' License | N | E | |
| Operates tractors, forklifts, and other heavy equipment; sits for long periods of time; moves dirt, digs trenches, and hangs banners; climbs up and down stairs or ladder rungs to enter and exit equipment; reaches forward, down, and across to operate controls; monitors and remains alert to verbal and visual signs from other workers, and to equipment instrument and gauges to detect malfunctions and problems. | 10 | F | Heavy Equipment | CA Driver's License | Y | E | |
| Continuously observes safety practices and procedures, including utilizing and implementing established safety practices, wearing appropriate safety gear, and reporting or correcting unsafe conditions. | 11 | C | Personal Protection Equipment | | N | E | |
| Determines parts needed for repairs; orders part, on-line, by phone, or in person; picks up and delivers supplies, maintains accurate electronic and paper records and files; maintains smog check records. | 12 | F | Computer, phone, vehicle | CA Driver's License | Y | E | |
| Monitors and performs routine maintenance on shop equipment; reports issues requiring maintenance by outside vendor to management. | 13 | O | | | N | E | |
| Prepares rooms for event and restores rooms after events: sets up and breaks down tables and chairs; sets up and puts away sound and theater equipment; lifts, carries, reaches, bends, and stoops. | 14 | O | | | N | N | |

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|---|---------------|----------------|--|---|----------------------------------|-------------------------------|--|
| Participates in continuous training, research, study, and reading, both on and off-site, to keep current on vehicle repair standards, and best practices, and to maintain applicable working knowledge. | 15 | O | Computer | | N | E | |
| Trains and serves as a technical resource for other workers; oversees and assigns work of community service and court referral workers; provides forklift operation training and testing. | 16 | O | | | N | E | |

PART 2: PHYSICAL DEMANDS

| Activity | Examples of Duties/Functions Requiring Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY: Permanently Restricted |
|---|---|---|------------------------|------------------------------------|-------------------------------------|
| Sitting (i.e., Using computer or phone; Driving; Operating Equipment) | 1,7,8,9,10,12,15 | O | | | |
| Walking (i.e., Diagnosing or inspecting Equipment/Vehicles; Preparing Event Spaces) | 1-5,12,14 | F | | | |
| Running | NA | N | | | |
| Standing (i.e., Performing diagnostics or repairs on Equipment/Vehicles; Welding; Preparing Event Spaces) | 1-6,13,14 | C | | | |
| Bending-Neck (i.e., Using computer or phone; Driving; Operating Equipment; Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles; Welding; Preparing Event Spaces) | 1-16 | C | | | |
| Bending-Waist (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles) | 1-5,14 | O | | | |
| Squatting (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles) | 1-5,14 | O | | | |
| Climbing (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles; Preparing Event Spaces) | 1-5,10 | O | | | |
| Kneeling (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles) | 1,3,5 | O | | | |
| Crawling (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles) | 1-5 | O | | | |
| Twisting- Neck (i.e., Using computer or phone; Driving; Operating Equipment; Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles; Welding; Preparing Event Spaces) | 1-16 | F | | | |
| Twisting - Waist (i.e., Diagnosing and performing repairs on Equipment/Vehicles) | 2-5,10,16 | O | | | |
| Repetitive Hand Use (See below) | 1-16 | C | | | |
| Simple Grasping-Right Hand (i.e., Using phone or two-way radio; Using hand tools; Performing diagnostics or repairs on Equipment/Vehicles; Welding; Preparing Event Spaces) | 1-16 | C | | | |
| Simple Grasping-Left Hand (i.e., Using phone or two-way radio; Using hand tools; Performing diagnostics or repairs on Equipment/Vehicles; Welding; Preparing Event Spaces) | 1-16 | C | | | |
| Power Grasping-Right Hand (i.e., Using hand tools or power tools; Repairing or re-building motors or parts for Equipment/Vehicles) | 3,5,6,10,13,14 | O | | | |
| Power Grasping-Left Hand (i.e., Using hand tools or power tools; Repairing or re-building motors or parts for Equipment/Vehicles) | 3,5,6,10,13,14 | O | | | |
| Fine Manipulation-Right Hand (i.e., Using compute, phone or two-way radio; Welding; Using small hand tools) | 2,3,5,6,13 | F | | | |
| Fine Manipulation-Left Hand (i.e., Using compute, phone or two-way radio; Welding; Using small hand tools) | 2,3,5,6,13 | F | | | |
| Pushing and Pulling (right hand) (i.e., Performing | 3-6,10,13,14 | O | | | |

| Activity | Examples of Duties/Functions Requiring Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY: Permanently Restricted |
|--|---|---|------------------------|------------------------------------|-------------------------------------|
| maintenance and repairs on Equipment/Vehicles; Preparing Event Spaces) | | | | | |
| Pushing and Pulling (left hand) (i.e., Performing maintenance and repairs on Equipment/Vehicles; Preparing Event Spaces) | 3-6,10,13,14 | O | | | |
| Reaching (above shoulder level) (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles; Preparing Event Spaces; Using computer, phone or two-way radio) | 2-6,14 | O | | | |
| Reaching (below shoulder level) (i.e., Inspecting Equipment/Vehicles; Performing diagnostics or repairs on Equipment/Vehicles) | 2-6,10,14 | F | | | |
| Lifting-up to 10 lbs. (i.e., Using hand tools, Using phone or two-way radio; parts for equipment/vehicles) | 1-16 | C | | | |
| Lifting-11-25 lbs. (i.e., Using hand tools and power tools; setting up event spaces; parts for equipment/vehicles) | 2,3,5,6,13,14 | F | | | |
| Lifting-26-50 lbs. (i.e., Using power tools; setting up event spaces; parts for equipment/vehicles) | 3,5,6,14 | O | | | |
| Lifting 51-75 lbs. (i.e., Parts for equipment/vehicles; Setting up event spaces) | 5 | O | | | |
| Lifting 76-100 lbs. (i.e., Parts for equipment/vehicles) | 5 | O | | | |
| Lifting 100 + lbs. | NA | N | | | |
| Carrying 0-10 lbs. (i.e., Using hand and small power tools; Using phone or two-way radio; parts for equipment/vehicles) | 1-16 | C | | | |
| Carrying 11-25 lbs. (i.e., Using hand and power tools; parts for equipment/vehicles; setting up event spaces) | 2,3,5,6,13,14 | O | | | |
| Carrying 26-50 lbs. (i.e., Setting up event spaces; Parts for equipment/vehicles) | 3,5,6,14 | O | | | |
| Carrying 51-75 lbs. (i.e., Parts for equipment/vehicles; setting up event spaces) | 5 | O | | | |
| Carrying 76-100 lbs. (i.e., Parts for equipment/vehicles) | 5 | O | | | |

PART 3: SENSORY REQUIREMENTS

| Activity | Examples of Duties/Functions Requiring Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---|------------------------|------------------------------------|------------------------------------|
| Functional vision, normal or corrected (i.e., all work activities, to include: Driving, inspecting and repairing equipment/vehicles, using the computer) | 1-16 | C | | | |
| Functional color vision, normal or corrected (i.e., especially important while performing electrical work; setting up event spaces) | 2-6,10,13 | C | | | |
| Functional night vision, normal or corrected (i.e., Performing necessary work tasks before sunrise and after sunset) | 1,9,14 | O | | | |
| Functional hearing, normal or corrected (i.e., communicating in person, over the phone or two-way radio; diagnosing equipment/vehicle issues; setting up event spaces) | 2-6,8-10,12,13,14 | C | | | |
| A sense of smell or taste (i.e., diagnosing | 2-6,10,11,13 | C | | | |

| Activity | Examples of Duties/Functions Requiring Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|---------------------------|---|---|---------------------------|---------------------------------------|---------------------------------------|
| equipment/vehicle issues) | | | | | |

PART 4: COMPREHENSION LEVEL

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|-----------------------------------|---|---------------------------|---------------------------------------|---------------------------------------|
| Follow Oral Instructions | F | | | |
| Follow Written Instructions | O | | | |
| Required to sustain concentration | C | | | |

PART 5: NATURE OF TASKS

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---------------------------|---------------------------------------|---------------------------------------|
| Follow set procedures | O | | | |
| Organize own work | C | | | |
| Able to ask questions or request assistance when needed | F | | | |
| Required to make decisions independently | F | | | |
| Required to train and/or lead others | O | | | |
| Required to direct others (e.g. planning, goal setting, performance) | N | | | |

PART 6: WORK PACE

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---------------------------|---------------------------------------|---------------------------------------|
| Tightly scheduled and rapid pace of work activities at high volume | O | | | |
| Meet time sensitive deadlines | F | | | |
| Long and/or irregular hours | O | | | |
| Limited/unpredictable opportunity for breaks | O | | | |
| Required to perform on-call or emergency work | O | | | |

PART 7: COMPLEXITY/VARIABILITY

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---------------------------|---------------------------------------|---------------------------------------|
| Variable and unpredictable workflow | C | | | |
| Attention divided by issues requiring multi-tasking | O | | | |
| Work requires precise attention to detail | C | | | |
| Use of judgment in routine matters | C | | | |
| Requires use of judgment in adapting procedures from one task to another | O | | | |
| Possible legal ramifications associated with work activities or work product | N | | | |

PART 8: INTERACTIONS WITH OTHERS

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---------------------------|---------------------------------------|---------------------------------------|
| Works with others (e.g., co-workers, other departments/agencies, public) | F | | | |
| Interactions limited to giving/receiving information | F | | | |
| Interactions exceed giving/receiving information (e.g., advises, persuades, justifies) | O | | | |
| Interactions occur under circumstances of emotional stress | O | | | |
| Risk of confrontation with violent or assaultive clients or customers | O | | | |

PART 9: ENVIRONMENTAL FACTORS/WORKING CONDITIONS:

| Activity | FREQUENCY RATING Never, Occasional; Frequent, or Constant | MEDICAL Can Perform | PROVIDER Temporarily Restricted | USE ONLY Permanently Restricted |
|--|---|---------------------------|---------------------------------------|---------------------------------------|
| Work Inside | C | | | |
| Work Outside | F | | | |
| Extreme Heat (above 100 degrees) | O | | | |
| Extreme Cold (below 32 degrees) | O | | | |
| Excessive Noise (must raise voice to be heard) | F | | | |
| Vibration (e.g., jack hammer, hammer drill, chainsaw, etc.) | O | | | |
| Dust, Vapors, Fumes, Smoke | F | | | |
| Silica, asbestos, etc. | N | | | |
| Solvents (e.g., gas, turpentine, etc.) | O | | | |
| Grease, oils | C | | | |
| Acidic, Caustic Solutions | O | | | |
| Pesticides | O | | | |
| Explosives (e.g., dynamite, bomb, etc.) | N | | | |
| Cleaning supplies, abrasives | O | | | |
| Other Chemicals (e.g. drugs and other contraband) | N | | | |
| Human Blood, Body Tissues, or Fluids | O | | | |
| Human Wastes | O | | | |
| Animal Blood, Body Tissues, or Fluids | O | | | |
| Animal Wastes | O | | | |
| Biological Toxins (e.g., poison ivy, poison oak, anthrax, etc.) | O | | | |
| Insect Bites (e.g., ticks, mosquitos, spiders, etc.) | O | | | |
| Biomedical Waste | N | | | |
| Ionizing Radiation | N | | | |
| Non-Ionizing Radiation | N | | | |
| Electrical Energy | O | | | |
| Walking on uneven, slippery, or rough surfaces | O | | | |
| Proximity to moving mechanical parts (e.g., equipment, machinery) | F | | | |
| Proximity to moving vehicles or objects | O | | | |
| Heights (e.g., rooftop, ladders, scaffolding, etc.) | O | | | |
| Contact with water, other liquids, humid conditions - not weather related | O | | | |
| Work Below Ground: (e.g., excavation, trench, etc.) | N | | | |
| Potential exposure to airborne infectious diseases (e.g. clinics, labs, corrections) | N | | | |
| Operates non-commercial motor vehicles (cars, trucks) | O | | | |
| Operates commercial vehicles – CDL Class _____ Endorsements _____ | N | | | |
| Operates passenger van to transport clients, inmates, etc. | N | | | |
| Pulls non-commercial trailers or equipment | O | | | |
| Operates heavy equipment | O | | | |
| Other: | | | | |

PART 10: MEDICAL SCREENING, SURVEILLANCE AND VACCINATION REQUIREMENTS:

Please check each of the medical screening, surveillance, and vaccination requirements that apply to the position, and indicate if the requirement applies pre-employment/pre-placement only, or whether there are additional requirements after hire.

| Medical Screening, Surveillance or Vaccination | Pre-Hire | Post-Hire | Frequency (one time, annual, etc.) |
|--|----------|-----------|---------------------------------------|
| Audiometric Testing | X | X | Annually |
| DOT Drug and Alcohol Screening | | | |
| DOT Physical Exam | | | |
| Respirator Physical Exam | X | X | Initial and as necessary by physician |
| Respirator Questionnaire – Short | | | |
| Respirator Questionnaire – Standard | X | X | Annually |
| Blood lead level | | | |
| Hazardous Waste/Emergency Worker physical | | | |
| Heavy metal screen (mercury, lead, arsenic) | | | |
| HINT Hearing Noise Sensitivity Testing | | | |
| Tuberculosis skin test | | | |
| Vaccine: MMR | | | |
| Vaccine: Hepatitis B | | X | offered |
| Vaccine: Influenza | | | |
| Vaccine: Meningococcal | | | |
| Vaccine: Pneumococcal | | | |
| Vaccine: Rabies | | | |
| Vaccine: Tdap | | | |
| Vaccine: Chickenpox | | | |

PART 11: ADDITIONAL INFORMATION, PICTURES, ETC.



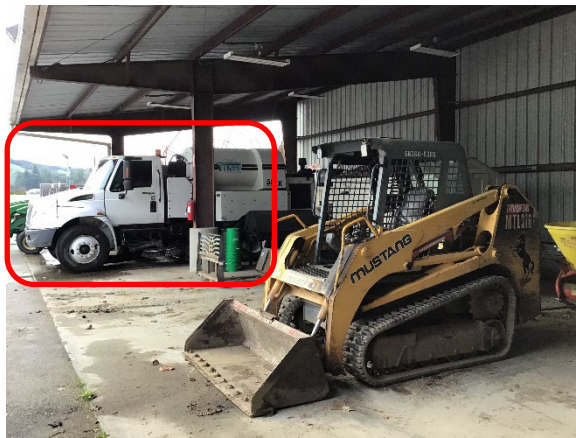
Golf Cart Tires – 20 lbs.
Stored from floor to 76 inches



Sample of equipment to be maintained/repaired



Sample of equipment to be maintained/repaired



Vac-Truck to be maintained/Repaired



Tractor Attachment



Tractor Attachment



Propane fueled Forklift
Tank lifted up to 47-inches



8 Gallon/33.5 lbs. Propane tank
Tank = 33.5 lbs.-Empty; 71 lbs.- Full



12 Volt Golf Cart Battery
8" x 5" x 6." = 13 lbs.



6 Volt Golf Cart Battery
10" x 7" x 11" = 58 lbs.



Truck/Tractor Battery
9.5" x 13" x 7" = 58.5 lbs.

Additional Duties may include:



Set-Up/Break-Down of Events-
8' x 30" table – 61 lbs.
15 – 8 ft. tables with handle at 42"
Push force = 46.37 lbs. / Pull force = 59.37lbs.



Powder River Gates and Panels
One panel weighs up to 153 lbs.
Two-Person or Mechanical Lift ONLY



Small Livestock Portable Pens
Moved around grounds on pallet by Forklift