



Monterey Regional Waste Management District

Job Description

Position:	Electro-Mechanical Technician	Department:	MRF Maintenance
Position Status:	Full Time/Exempt	Bargaining Unit:	Operations Unit
Reports to:	MRF Maintenance Supervisor	Created:	September 2019

DEFINITION

The Electro-Mechanical Technician will utilize journey-level electrical and mechanical skills, experience and knowledge in the practices, procedures and methods of installing, maintaining and repairing complex and general computerized industrial production, processing equipment and systems. This position requires proficiency in multiple skill clusters, such as Programmable Logic Controller (PLC), and mechanical systems and processing equipment.

DISTINGUISHING CHARACTERISTICS

This is a single journey-level job classification. The incumbent is responsible for monitoring electrical systems and mechanical equipment for optimal performance, including predictive and advanced diagnostic testing; preventive and corrective electrical maintenance; maintaining and improving a variety of electrical components and mechanical equipment related to the Materials Recovery Sort System, supporting facilities, and infrastructure. The person must be available to work a flexible schedule, overtime and weekend hours due to production demand and be required to be on call to service equipment as business needs dictate.

ESSENTIAL FUNCTIONS

The following duties are typical of this classification and are intended only to describe the various types of work that may be performed, the level of technical complexity of the assignment(s) and are not intended to be an all-inclusive list of duties. The omission of a specific duty statement does not exclude it from the position if the work is consistent with the concept of the classification or is similar or closely related to another duty statement to address business needs and changing business practices.

- Must be able to regularly work near or around high-powered magnets, as there are six such magnets inside the MRF building, which prohibit persons with pacemakers to be near or around them.
- Perform installation and modification of control and power wiring, from 120V AC to and including 480V 3 Phase AC, within NEC and CalOSHA standards in production environment.
- Diagnose, test, repair and make adjustments to AC and DC systems to include motors and drive systems.
- Diagnose, repair, and adjust pneumatic, hydraulic, electrical, and electronic systems, including control loops and P.I.D. loops (4-20 milliamps).
- Use instruments to diagnose, repair, align, and adjust mechanical systems to include ball screws, drive systems, bearings, conveyors, etc.
- Diagnose, repair, and make adjustments to industrial controllers, including analog and digital systems and programmable controllers.
- Install, disassemble, repair, and reassemble equipment systems and site electrical equipment.
- Perform skilled electrical problem diagnosis, repairs, and maintenance on MRF processing equipment.
- Perform mechanical and electrical repairs on large pieces of equipment using appropriate cranes, lifts, jacks, hoists, and other equipment, as necessary.
- Interpret schematics and equipment manuals to troubleshoot equipment.
- Calibrate analog and digital instrumentation.
- Lead process improvement and initiate change.
- Comply with all District safety standards and regulations (e.g. LOTO, PPE, etc.)
- Accurately and thoroughly document and track all corrective and preventive maintenance performed

throughout the course of the day, including searching and issuing parts, documenting equipment issues, and entering inspection/measurement points.

- Assists in the development of specific technical and training documentation.
- Assists in training and skills development of other department employees.
- All District positions require the employee to provide good customer service to both internal and external customers, maintain positive and effective working relationships with other District employees, and adhere to assigned work schedule and meet District Attendance Standards. Must show cooperation and respect to fellow employees and supervisors at all times.
- Perform other duties as assigned.

SUPERVISORY RESPONSIBILITIES

The person in this position does not provide direct supervision to other employees. They may provide indirect oversight and lead the work of assigned workgroup and provide training to department employees.

QUALIFICATIONS

Knowledge, Skills and Abilities

- Knowledge of work safety methods and programs.
- Strong interpersonal and communication skills and the ability to work effectively in a team environment with people of varying skills and backgrounds.
- Ability to troubleshoot problems, identify root causes (root cause analysis) and propose and implement remedies.
- Ability to perform calibrations, installation and maintenance of process and analytical instrumentation.
- Ability to troubleshoot automated equipment such as electric motors, PLCs, VFDs, sensors, pressure switches, breakers, disconnects, pumps, etc.
- Knowledge of principles, methods, tools, and equipment required to troubleshoot and repair electrical motors and control systems.
- Knowledge of utility grade electrical components, DC and AC electrical circuits.
- Ability to read and interpret electrical schematics, diagrams, repair and parts manuals.
- Ability to perform mechanical repairs to MRF equipment, conveyor belts, bearings, pulleys, rollers, chain drives, gearboxes, disc screens, walking floor systems, misting systems, hydraulic and pneumatic systems, and various material sorting equipment.
- Knowledge of welding and fabrication, wear prevention, metal types, metal working tools and equipment.
- Ability to skillfully use hand and power tools.
- Strong computer skills required; Microsoft Office (Outlook, Excel) proficiency as well as Computerized Maintenance Management Systems experience preferred.
- Ability to understand and carry out written and oral directions.
- Ability to apply sound judgement in a variety of circumstances with or without specific instructions.

REQUIREMENTS

- High School graduate or GED equivalent desired. College degree preferred.
- Minimum (5) years of progressive electrical/mechanical experience on industrial processing equipment required.
- Forklift Certification
- Crane and Manlift Certification
- MWD High Voltage Switching Certificate

- Understanding of preventative, corrective, and predictive maintenance methods.
- Must be able to read and comprehend electrical diagrams schematics and blueprints. Electrical Training certificate required.
- Programmable Logic Control (PLC) Certificate required.
- California Driver's License required.
- HVAC Certification preferred.
- Basic computer skills required.

PHYSICAL AND SENSORY REQUIREMENTS

The physical and mental demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

Constant walking on uneven and slippery surfaces; frequent climbing (stairs, ladders, and onto/into production equipment) and working in heights. Intermittently, sit while driving, operating equipment, walk, stand for extended periods of time, bend, stoop, reach, carry, crawl, climb, twist and reach while inspecting or repairing, digging or clearing, use various tools and equipment and lift as necessary to perform assigned duties; perform simple and power grasping, pushing pulling and fine manipulation; distinguish colors used in marking utility facilities and lift or carry weight of up to 50 pounds without assistance and heavier objects with assistance. Normal manual dexterity and eye-hand coordination; working with electrical testing equipment, engine emissions testing equipment and exposure to electrical current and energy; corrected hearing and vision to normal range; verbal communication.

Mental Demands - While performing the duties of this class, employees are regularly required to use written and oral communication skills; read and interpret complex data, information and documents; analyze and solve complex policy and operational problems; observe and interpret people and situations; use math and mathematical reasoning; learn and apply new information or skills; perform highly detailed work on multiple, concurrent tasks with constant interruptions; work under intensive deadlines and interact with Board members, all levels of District management, other elected and appointed governmental officials, consultants, contractors, developers, vendors, employees, media representatives and the public.

Work Environment - Normally work is performed in both indoor and outdoor environments; occasionally will be exposed to varying temperatures; regular exposure to exposure to dirt, dust, fumes, noise, garbage, foul odors; potential exposure to hazardous materials and chemicals, moderate exposure often works around fast-moving vehicles and equipment; constant contact with staff and the public.

ACKNOWLEDGEMENT

I verify that I have received a copy of the job description and I understand the requirements of this position.

Employee Signature

Date

