

ELECTRICAL CONTROLS SPECIALIST I

JOB DESCRIPTION

Classification Responsibilities: Under close supervision, An Electrical Controls Specialist I performs or assists Electrical Control Specialist IIs with Electrical/Instrumentation installation, maintenance, troubleshooting, and repair work related to electrical equipment up to 15kv and instrumentation equipment used to operate and monitor the City's water, wastewater, and gas systems. Duties include: installing, programming, calibrating, and commissioning various electrical/instrumentation devices including variable frequency drives, level transmitters, flow meters, radios, and power monitoring equipment; assisting in the startup, commissioning, and troubleshooting of the process control system including correcting problems with communications and field process variables; coordinating and acquiring materials and equipment to repair or install at facilities; performing calibration and verification for the Arizona Corporation Commission on gas regulator stations; and certifying calibration for Inter-Agency flow meters. Incumbents must be willing to work overtime as required. An employee in this class is required to use appropriate safety equipment and follow safety procedures in accordance with Occupational Safety and Health Administration (OSHA) and National Fire Protection Association (NFPA) 70E. This class performs related duties as required.

Distinguishing Features: This class may involve hazardous conditions typically associated with voltages up to 15kv, natural gas, raw sewage, toxic chemicals, laser beams, and confined work areas. This class is distinguished from the Electrical Controls Specialist II by the latter's responsibility for performing, under limited supervision or independently, skilled Electrical/Instrumentation work on equipment used to operate and monitor the City's water, wastewater, and gas systems. Employees in this class may progress by noncompetitive promotion to Electrical Controls Specialist II upon meeting the specific criteria-based promotion requirements of experience, training, and performance. The Electrical Controls Specialist I receives close supervision and safety guidance from an Electrical Controls Supervisor while also receiving direction from an Electrical Controls Specialist II who reviews completed work practices for safety conformance and compliance. The Specialist II will also assist and instruct the Specialist I on installation, maintenance, repairs, specifications, and other standards. This class is FLSA nonexempt.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Any combination of training, education, and experience equivalent to a four-year electrical apprenticeship OR graduation from an accredited college or university with an Associate's Degree in Electrical Technology, Electronics, or related field. Three years of experience as a journey-level Electrician.

Special Requirements: Must possess a valid Class D Arizona Driver's License by hire date. Must successfully complete operator qualification training administered by the Energy Resources Department within 18 months of hire/promotion into the class and must retain qualification throughout employment in order to work on the City of Mesa's natural gas system.

Substance Abuse Testing: This class is subject to Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) drug and alcohol testing as outlined in 49 Code of Federal Regulations (CFR) Part 199.

Preferred/Desirable Qualifications: Experience with industrial controls, switchgears, and starters up to 480vac within an industrial background. Experiences with voltages up to 15kv is desirable. Controls experience with an Instrumentation background is desirable.

ESSENTIAL FUNCTIONS

Communication: Communicates with the public, City employees, and vendors in order to identify problems, areas of improvement, and to coordinate solutions. Works courteously with customers in situations that require tact and diplomacy in order to identify and resolve service issues. Presents ideas clearly, both verbally and in writing, to share acquired knowledge, negotiate outcomes, discuss alternatives, and address problem/conflict situations. Communicates and coordinates work activities with other work units to ensure timely completion of new installation constructions.

Manual/Physical: Uses various power tools to repair electronic/electrical controls and instruments, and installs electronic telemetering devices, ultrasonic sensors, sequential controls, alarms, and digital computer interfaces. Tests and calibrates electronic equipment. Uses laptop computers to troubleshoot, document, modify, or correct settings and parameters for relays, Variable Frequency Drive (VFD), radios, etc. Documents new installations and modifications on "as-built" instrumentation. Diagnoses and repairs equipment failures and malfunctions utilizing schematic diagrams and test equipment, which includes reading schematics and blueprints to trace complex electronic and electrical circuits. Operates a half-ton pickup truck requiring a standard Class D Arizona Driver's License in order to drive to different job sites to inspect equipment and make repairs. Uses common hand tools, such as handsaws, strippers, etc., to install parts and repair equipment. Cleans drills, saws, and grinders. Works with contact cleaners in cleaning parts. Moves wire of less than 20 pounds for short distances (20 feet or less). Moves dirt and debris to install underground conduit and wire. Measures distances in installing equipment and parts. Reads electrical schematics, wiring diagrams, construction plans, and blueprints. Works in small, cramped areas, at elevated levels, and in a variety of weather conditions while repairing equipment. Works around medium voltage and toxic chemicals utilizing specialized non-routine protective equipment in order to complete job assignments. Operates a personal computer (PC), and uses software (example: word processing, databases, spreadsheets, graphics packages, and emulation, etc.) to prepare detailed and technical reports for use by others including management, coworkers, vendors, or other City employees. Meets scheduling and attendance requirements.

Mental: Prepares, reads, and interprets schematics and blueprints. Assists with diagnosing causes for malfunction or failure of electronic controls and instruments. Comprehends and makes inferences from written material. Learns job-related material in classroom and on-the-job training settings.

Knowledge and Abilities:

Knowledge of:

operating systems and communication protocols that are used in the City's computing environment;
safety procedures and practices applicable to working with electrical and electronics;
the installation, testing, maintenance, calibration, and repair procedures for various electronic
telemetering devices; and
general electrical theory.

Ability to:

assist with the installation, configuration and commissioning of variable frequency drives, magnetic
flow meters; radios; and solid state electronics;
test and calibrate electronic equipment;
operate a PC;
assist repairing electronic controls and instruments; and
establish and maintain effective working relationships with management and coworkers.

The duties listed above are intended only as general illustrations of the various types of work that may
be performed. Specific statements of duties not included does not exclude them from the position if the
work is similar, related, or a logical assignment to the position. Job descriptions are subject to change
by the City as the needs of the City and requirements of the job change.

New 6/26

NF/eb

CS4906.DOX

EEO-SCW

JOB FCTN-TRA

Non-DOT Safety and Security-N

CDL-N

RESP-N

PAY GRADE: 51

IND-7539

SWORN-N

Non-DOT Random-N

DOT-Y

INCREMENTS 62-200