

MORGAN STATE UNIVERSITY

JOB SPECIFICATION



ELECTRICAL- SYSTEM RELIABILITY TECHNICIAN

Class Code: N1022

FLSA Code: N/E (Non-Exempt)

Pay Range: 15

JOB SUMMARY

Under general supervision performs operation, testing, evaluation, analysis, maintenance and repairs of electrical utility distribution systems, energy conservation systems, and other critical building systems and components to assure the availability, reliability and continuity of facilities operations and services. May lead and train others in the completion of this work. This job is typically found in an academic support or research environment.

PRIMARY DUTIES

1. Maintains critical systems reliability through the use and application of test and analysis instruments to include thermographic imaging, vibration analysis, ultrasonic detection, precision alignment, electrical signature and motor analysis instruments.
2. Operates tests and maintains high voltage electrical equipment to include 15kv air-switches, dry and liquid filled transformers, thermal and electronic trip circuit breakers, distribution and safety equipment, wiring, ducts and conduits.
3. Tests with appropriate technique, tools and instruments, analyze and interprets data from circuit breaker, insulation and contact resistance, control relay and transformer turns ratios testing. Adjusts repairs or coordinates repair of deficiencies noted from testing.
4. Performs testing, maintenance and repairs to emergency power generation, switching and distribution controls and equipment to include the repair of both mechanical and electrical components.

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5. Installs, maintains and repairs motors and motor controllers, including soft-starts and variable frequency drives, from fractional horsepower 120 volt motors to those served by high voltage.
6. Prepares technical reports and project scope with regard to systems reliability, deficiency identification, repairs recommendations, maintenance recordation, and systems availability and readiness employing data, imaging and analyses collected through system testing.
7. Reads and interprets blue prints, schematic drawings and specifications.
8. Prepares estimates of time, labor and materials necessary to maintain systems reliability.
9. Provides guidance and training to others, may lead special projects and monitor the performance of contractors working on assigned building systems and components.

Note:

The intent of this list of primary duties is to provide a representative summary of the major duties and responsibilities of this job. Incumbents perform other related duties assigned. Specific duties and responsibilities may vary based upon departmental needs.

MINIMUM QUALIFICATIONS

EDUCATION: High School Diploma or GED

EXPERIENCE: Six years in related work

REQUIRED KNOWLEDGE/SKILLS/ABILITIES

Comprehensive knowledge and skills of the principles of high voltage electricity and the practices, tools, instruments and techniques employed in reliability centered maintenance of critical building systems and components. Thorough knowledge of OSHA regulations related to the electrical trades; of National Electric Code; and of the mathematics required to record, analyze and report on systems condition. Thorough knowledge of high voltage electrical systems and practices, motor control systems, emergency power generation and distribution systems, energy conservation practices and systems, and other critical building infrastructure and life safety systems. Skill in the installation, repair and

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maintenance of critical building equipment and systems; in the use and maintenance of tools and equipment of the trade; in the use of thermographic imaging equipment, in the use of other test and analysis tools to include ultrasonic, precision alignment, vibration analysis, motor analysis, electrical signature analysis and in using computers and related software to analyze and diagnose utilities system problems. Ability to read and explain manufacturer recommendations and technical specifications and drawings regarding maintenance, and operation of building systems and components; to prepare written reports; to communicate effectively both orally and in writing; to provide direction and training to mechanics and other maintenance personnel; to use computers for analysis and reporting of system operations; assist in the preparation of detailed project scope requirements and to monitor the performance of contractors supporting installation, modifications and repairs to critical building systems; to work in, on, around, over and under fixed equipment and machinery; to work at heights up to 35 feet; to manipulate heavy equipment, tools and supplies and/or exert force up to 50 lbs.; to concurrently manipulate multiple controls on machinery and equipment; to work in hazardous or irritating environments, confined spaces, and adverse weather or temperature conditions; to wear and work in personal protective equipment.

OTHER:

Except for qualifications established by law, additional related experience and formal education in which one has gained the knowledge, skills, and abilities required for full performance of the work of the job class may be substituted for the education or experience requirement on a year-for-year basis with 30 college credits being equivalent to one year of experience.

CONDITIONS OF EMPLOYMENT

Candidates selected for employment may be subject to medical inquiries and/or medical examinations to determine ability to perform the job. Valid Maryland Non-commercial Class C or equivalent driver's license may be required. Possession of a Maryland State certification as a licensed maintenance electrician may be required. Candidates selected for employment must be available to respond and return to the campus in the event of an emergency.