



MAINTENANCE ENGINEER

JC: 000060

PB: 6

BU: 92 (NR)

FLSA: Exempt

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under supervision, performs a variety of professional maintenance engineering duties in the development and administration of the District's Maintenance and Engineering preventative/predictive maintenance program including evaluating and revising maintenance procedures and project plans, ensuring compliance to codes and specifications, and assisting in the coordination of maintenance projects; supports maintenance programs through research, field inspections, data collection, and analysis; provides data collection and analysis to document system and equipment performance and reliability testing; determines the impact and effectiveness of operational procedures and methods; performs related duties as assigned.

CLASS CHARACTERISTICS

This is the full professional journey level classification within the Maintenance Engineering series. Positions at this level receive occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit and possesses expert technical or functional expertise within the area. This classification is distinguished from the Manager of Maintenance Administration in the latter administers, directs, manages, supervises and coordinates the activities and operations of staff performing maintenance administration and support for the Maintenance Support Division and for the Maintenance and Engineering Department.

REPORTS TO

Manager of Maintenance Administration or designee

EXAMPLES OF DUTIES – *Duties may include, but are not limited to, the following:*

1. Performs a variety of professional maintenance engineering duties including oversight of Preventive/Predictive Maintenance (PM) and Condition Based Maintenance (CBM) procedures by developing engineering type solutions to repetitive equipment failures and other maintenance related problems; implements methods to reduce the need for maintenance and ultimately eliminating the occurrence of failures and assisting in the development of processes and equipment specifications enabling a comprehensive overall lifecycle cost and reliability perspective.
2. Develops partnerships and works closely with key stakeholders in and outside the organization such as Maintenance & Engineering, Rolling Stock & Shops, Operations, Material Management and Reliability Engineering on process to ensure that materials and equipment are reliable and in a state of good repair.

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3. Develops and administers the Preventive/Predictive Maintenance Program by specifying and developing standard repair techniques of major repetitive tasks such as component replacements; Ensures that responsible personnel are trained in the Preventive/Predictive Maintenance Program.
4. Analyzes asset histories to identify specific repetitive failures, and create a plan to address these failures.
5. Reviews assigned asset failures to determine what preventive maintenance actions may have prevented the failure, and to identify means to reduce the likelihood of repeat occurrences.
6. Develops standardized processes to influence new construction and equipment purchases including materials, equipment and spare parts.
7. Identifies potential cost reductions through extended parts life, reducing labor costs, and other parts related improvement techniques.
8. Maintains and updates a library of all assets and standard job tasks for future reference and implementation; conducts periodic audits of job plans to verify effectiveness using results to apply value analysis toward the maintenance division.
9. Troubleshoots Enterprise Asset Management software system.
10. Participates in the review phase of design of capital additions, asset purchases, and changes in plant layout to ensure full maintainability of all assets, utilities, and facilities; carries out quality inspections on jobs.

QUALIFICATIONS

Knowledge of:

- Principles, practices, methods, materials, tools, and equipment used in reliability centered maintenance
- Principles and practices of concepts related to reliability engineering
- Operational characteristics of fixed rail systems and associated equipment
- Methods and techniques of data collection and analysis
- Root Cause Analysis processes and problem-solving techniques
- Concepts related to statistical, mathematical and comparative analysis
- Principles and practices of statistical record keeping and reporting
- Methods and techniques of data collection and analysis
- Principles of Enterprise Asset Management (EAM) system development
- Principles of business letter writing and basic report preparation
- Current office equipment including computers and supporting word processing and spreadsheet applications
- Related Federal, State and local codes, laws and regulations.

Skill/ Ability in:

- Performing a variety of reliability engineering and analysis duties
- Collecting, compiling and analyzing data
- Conducting reliability testing on Transit System Maintenance Equipment and Facilities

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- Performing statistical, mathematical and comparative analysis on equipment reliability and performance
- Analyzing problems, identifying solutions, projecting likely outcomes from proposed maintenance actions, and implementing recommendations in support of a state of good repair for all assets
- Implementation of reliability-based maintenance program with emphasis on planning and scheduling, asset management, and strategic maintenance planning
- Preparing a variety of technical and analytical reports
- Reading and interpreting engineering reports and documents
- Understanding and following oral and written instructions
- Communicating clearly and concisely, both orally and in writing
- Establishing and maintaining effective working relationships with those contacted in the course of work

MINIMUM QUALIFICATIONS

Education:

Possession of a bachelor's degree in Engineering or a closely related field from an accredited college or university.

Experience:

The equivalent of two (2) years of full-time professional verifiable experience in preventative maintenance system, equipment operational performance and reliability, or a closely related experience.

Substitution:

Additional professional experience as outlined above may be substituted for the education on a year-for-year basis.

WORKING CONDITIONS

Environmental Conditions:

Office environment; exposure to computer screens.

Physical Conditions:

May require maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time.

BART EEO-1 Job Group: 3000 - Engineers
Census Code: 1530 – Miscellaneous Engineers
Safety Sensitive: No

CLASSIFICATION HISTORY

Created : January 2012
Revised: June 2019

Updated : October 2021