



RELIABILITY ENGINEER

JC: TF245
PB: 5
FLSA: Exempt

BU: 92 (NR)
Created: July 2000

*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

Performs a variety of duties involving data collection and analysis to document system and equipment performance and reliability testing; determines the impact and effectiveness of operational procedures and methods; and performs related duties as assigned.

CLASS CHARACTERISTICS

This is the full journey level class within the Reliability Engineer series. Employees within this class perform the full range of duties as assigned. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Senior Reliability Engineer in that the latter possess a specialized technical or functional expertise within the area of assignment or may exercise lead supervision over assigned lower level staff.

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

1. Performs a variety of duties in data collection and analysis to document system performance and equipment reliability testing.
2. Reviews delay monitors; communicates with District departments on train delays; determines causes for train delays; and provides reports.
3. Collects or develops monthly performance statistics and prepares operations overview summary for distribution within appropriate District divisions.
4. Administers tests and analyzes data for reliability demonstration tests on elevator and escalator equipment within District.
5. Provides contract support for new rail vehicle programs with respect to reliability, maintenance and safety data analysis.
6. Conducts reliability testing on new or rehabilitated rail vehicles; ensures compliance within mandated rules and regulations.

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7. Performs rapid data collection and analysis; develops graphic results for presentation to various District staff.
8. Conducts specialized delay studies; analyzes and predicts future systems and train problems.
9. Assists in gathering necessary data and information for specialized reliability reports and projects; prepares complex and technical reports in assigned program area.
10. Assists in developing improvements to new data reporting systems and procedures.

QUALIFICATIONS

Knowledge of:

- Operation, service and activities of reliability engineering program.
- Principles and practices of concepts related to reliability engineering.
- Rail operations and maintenance procedures.
- 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.
- Basic operational characteristics of fixed rail vehicle systems and equipment.
- 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 in:

- Performing a variety of reliability engineering and analysis duties.
- Collecting, compiling and analyzing data.
- Conducting reliability testing on rail vehicles and other equipment.
- Performing statistical, mathematical and comparative analysis on equipment reliability and performance.
- 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.

Other Requirements:

Must possess a valid California driver's license and have a satisfactory driving record.

Must possess sufficient mobility to perform field inspection and investigations.

MINIMUM QUALIFICATIONS

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Education:

A Bachelor's degree in engineering, physical sciences, mathematics, computer science or a closely related field from an accredited college or university.

Experience:

Two (2) years of (full-time equivalent) verifiable experience in the analysis of system and equipment operational performance and reliability. Transit system experience is preferred.

Substitution:

Additional professional experience as outlined above may be substituted for the education on a year-for-year basis. A college degree is preferred.

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: 1460 – Mechanical Engineers
Safety Sensitive: No