



MANAGER OF VEHICLE SYSTEMS ENGINEERING

JC: TF237
PB: 10

BU: 95 (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 general direction, manages and oversees the activities and operations of the Vehicle Systems Engineering Division within the Rolling Stock and Shops Department including specialized engineering testing, analysis, design change and procedures development; coordinates assigned activities with other divisions, departments and outside agencies; and provides highly responsible and complex administrative support to the Chief Mechanical Officer and performs related duties as assigned.

CLASS CHARACTERISTICS

This is the full-scope managerial level classification responsible in the vehicle systems engineering department responsible for specialized engineering testing, analysis, design change and development of procedures for the Vehicle Systems Engineering Division within the Rolling Stock and Shops Department. Classifications at this level typically independently represent the organization, are subject matter experts possessing highly specialized knowledge, and are responsible for a specialty program area that has a major impact on the organization. This classification is distinguished from the Chief Mechanical Officer in that the latter is for directing, managing and overseeing all activities and operations of the Rolling Stock and Shops Department.

REPORTS TO

Group Manager, Vehicle Maintenance Engineering or designee

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

1. Assumes management responsibility for assigned services and activities of the Vehicle Systems Engineering Division including specialized engineering testing, analysis, design change and procedures development.
2. Manages and participates in the development and implementation of goals, objectives, policies and priorities for assigned programs; recommends and administers policies and procedures.
3. Monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; recommends, within departmental policy, appropriate service and staffing levels.
4. Plans, directs, coordinates and reviews the work plan for assigned staff; assigns work activities, projects and programs; reviews and evaluates work products, methods and procedures; meets with staff to identify and resolve problems.

Manager of Vehicle Systems Engineering

Page 2

5. Approves engineering change orders for modification of transit vehicle parts and equipment; creates engineering specifications for materials and parts as needed.
6. Directs and participates in the development and revision of transit vehicle testing, maintenance and overhaul procedures and programs.
7. Directs and participates in the development, testing, purchasing and installation of alternate parts and equipment for transit vehicles.
8. Oversees special engineering projects in transit vehicle design, engineering and maintenance; coordinates the movement of transit vehicles for maintenance projects.
9. Oversees investigation into repetitive or unusual occurrences related to transit vehicle parts and equipment; prepares reports on findings; makes recommendations for remedial action.
10. Designs, develops and updates transit vehicle preventative maintenance program.
11. Monitors developments and legislation related to assigned area of responsibility; evaluates impact upon district operations; recommends and implements equipment, practice and procedural improvements.
12. Selects, trains, motivates and evaluates engineering personnel; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline and termination procedures.
13. Oversees and participates in the development and administration of the division's annual budget; participates in the forecast of funds needed for staffing, equipment, materials and supplies; monitors and approves expenditures; implements adjustments.
14. Serves as the liaison for the Vehicle Systems Engineering Division with other divisions, departments and outside agencies; negotiates and resolves sensitive and controversial issues.
15. Serves as staff on a variety of boards, commissions and committees; prepares and presents staff reports and other necessary correspondence.
16. Provides responsible staff assistance to the Chief Mechanical Officer.
17. Provides expert testimony in litigation against the District.
18. Conducts a variety of organizational studies, investigations and operational studies; recommends modifications to vehicle system engineering programs, policies and procedures as appropriate.
19. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of transit vehicle system engineering.
20. Responds to and resolves difficult and sensitive citizen inquiries and complaints.

QUALIFICATIONS

Knowledge of:

- Operational characteristics, services and activities of a comprehensive transit vehicle system design and maintenance engineering program
- Design and repair specifications for new and rebuilt transit vehicles and components
- Advanced principles and practices of mechanical and electrical engineering as it relates to transit vehicles
- Principles and practices of developing and implementing preventative maintenance programs
- Methods and techniques of evaluating and approving vehicle engineering specifications
- Advanced operational characteristics of transit vehicles, systems and components
- Principles and practices of program development and administration
- Materials, tools and equipment used in the testing, maintenance, repair and modification of transit vehicles
- Transit vehicle electrical and mechanical equipment and subsystem
- Computers and applications utilized in transit vehicle diagnostics
- Principles and practices of contract administration
- Principles of supervision, training and performance evaluation Related Federal, State and local laws, codes and regulations

Skill/Ability in:

- Overseeing and participating in the management of a comprehensive vehicle systems engineering program
- Overseeing, directing and coordinating the work of lower-level staff
- Selecting, supervising, training and evaluating staff
- Participating in the development and administration of division goals, objectives and procedures
- Evaluating and resolving highly complex transit vehicle design and maintenance engineering problems
- Approving engineering change orders for modification of transit vehicle parts
- Investigating unusual occurrences related to transit vehicle parts and equipment
- Preparing and administering large program budgets
- Preparing clear and concise administrative and financial reports
- Analyzing problems, identifying alternative solutions, projecting consequences of proposed actions and implementing recommendations in support of goals
- Overseeing contracted design and maintenance services and contracts
- Researching, analyzing and evaluating new service delivery methods and techniques
- Interpreting and applying Federal, State and local policies, laws and regulations
- 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 electrical engineering, mechanical engineering, or a closely related field from an accredited college or university.

Manager of Vehicle Systems Engineering

Page 4

Experience:

The equivalent of five (5) years of full-time professional verifiable vehicle systems design and maintenance engineering experience, which must have included at least two (2) years of supervisory experience.

License or Certificate:

Registered as a Professional Engineer in the State of California preferred.

Other Requirements:

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

Must possess sufficient physical mobility to inspect transit vehicle maintenance operations.

WORKING CONDITIONS

Environmental Conditions:

Office environment; exposure to computer screens; field environment; exposure to heat, cold, inclement weather and moving vehicles.

Physical Conditions:

Requires maintaining physical conditions necessary for walking, standing, or sitting for long periods of time.

BART EEO-1 Job Group: 0500 – Managers/Executives
Census Code: 0430 – Miscellaneous Managers
Safety Sensitive: No

CLASSIFICATION HISTORY

Created : November 2002
Revised: June 2019
Updated : December 2021