



MANAGER OF TRAIN CONTROL ENGINEERING

FC: EF130
PB: 10

PC: 940
BU: 95
September 2002

*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

Administers, directs, manages, supervises and coordinates the activities and operations of the Train Control Engineering Division within the Maintenance and Engineering Department; coordinates assigned activities with other divisions, departments and outside agencies; provides highly responsible and complex administrative support to the Group Manager, Systems Engineering; and performs related duties as assigned.

CLASS CHARACTERISTICS

This single position class manages, through subordinate supervisors, specialized engineering design and analysis of electronic train control systems and equipment, whether accomplished by contract or District staff. The incumbent is accountable for accomplishing division goals and objectives and for furthering District goals and objectives within general policy guidelines. This class is distinguished from Group Manager, Communications and Train Control in that the latter has overall responsibility for all District electronics, train control, new vehicle and special projects engineering activities.

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

1. Assumes management responsibility for the activities and operations of the Train Control Engineering Division including the specialized engineering design and analysis of electronic train control systems and equipment.
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 of activities and staff; assigns work activities, projects and programs; reviews and evaluates work products, methods and procedures; meets with staff to identify and resolve problems.

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5. Directs and participates in the design and development of train control projects and programs; approves final project plans, specifications and cost estimates; approves engineering change orders for modification of train control parts and equipment.
6. Directs and participates in the specifications, testing, purchase and implementation of equipment for train control projects.
7. Oversees, prepares, administers and monitors consultant contracts for train control engineering projects; prepares and reviews requests for proposal; oversees the work of contract consultants; provides procedural control for assigned projects.
8. Directs investigations of unusual occurrences related to train control systems; evaluates findings; presents reports and recommendations as required.
9. Monitors developments and legislation related to assigned area of responsibility; evaluates impact upon district operations; recommends and implements equipment, policy and procedural improvements.
10. Selects, trains, motivates and evaluates assigned personnel; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline and termination procedures.
11. 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.
12. Serves as the liaison for the train control engineering division with other divisions, departments and outside agencies; provides technical assistance to the Legal Department; serves as an expert witness; negotiates and resolves sensitive and controversial issues.
13. Serves as staff on a variety of boards, commissions and committees; prepares and presents periodic and special reports regarding division activities to management staff or other departments and other necessary correspondence.
14. Provides responsible staff assistance to the Group Manager, Systems Engineering.
15. Responds to and resolves difficult and sensitive citizen inquiries and complaints.
16. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of train control engineering.

QUALIFICATIONS

Knowledge of:

Operations, services and activities of a comprehensive train control engineering program.

Principles and practices of electronic and control engineering.

Operational characteristics of train control and signaling systems.

Principles and practices of program development and administration.

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Operational characteristics of analog and digital electronics, electrical circuitry, electro-mechanical mechanisms and mini- and micro-computers.

Computer software and programming languages used in train control engineering.

Principles and practices of contract administration.

Principles and practices of project scheduling and management.

Principles and practices of budget preparation and administration.

Principles of supervision, training and performance evaluation.

Terminology, methods, practices, and techniques used in technical engineering report preparation.

Modern office procedures, methods, and equipment including computers.

Specialized computer programs or systems utilized in train control engineering design.

Related Federal, State and local laws, codes and regulations.

Skill in:

Overseeing and participating in the management of a comprehensive train control engineering program.

Applying engineering principles to train control projects.

Selecting, supervising, training and evaluating staff.

Planning and directing the design, installation, maintenance and repair of train control equipment.

Planning, organizing, directing, reviewing, and evaluating the activities of staff and contract consultants.

Participating in the development and administration of division goals, objectives and procedures.

Preparing and administering large program budgets and contracts.

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.

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 the work including District officials and the general public.

MINIMUM QUALIFICATIONS

Education:

A Bachelor's degree in digital electronic technology or a closely related field from an accredited college or university.

Experience:

Five (5) years of (full-time equivalent) verifiable professional systems engineering experience which must have included at least two (2) years of administrative and supervisory 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.

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Physical Conditions:

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

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