

JOB DESCRIPTION

Job Title: Senior Train Control Systems Engineer

FLSA Status: Exempt

Salary Grade: 10

PURPOSE OF POSITION

The Senior Train Control Systems Engineer will assist with the design, implementation and management of the Positive Train Control (PTC) signal and train control systems and associated processor logic programs for the SCRRA signal and PTC system.

DISTINGUISHING CHARACTERISTICS

This is the senior level of the Train Control Systems Engineer series. At this level, work may be performed under limited supervision or under limited direction. Incumbent possesses considerable latitude to accomplish tasks, which may include lead worker or supervisor duties.

SUPERVISION EXERCISED AND RECEIVED

- Receives supervision from departmental management/supervisory level roles
- No formal supervisory responsibilities; may lead the work of lower level staff

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended to describe the general nature and level of work being performed and are not to be interpreted as an exhaustive list of responsibilities.

- Maintain, update, review, and validate geospatial databases supporting SCRRA's PTC system including but not limited to track structures, speed restrictions, signals and signal enforcements. Coordinates the generation of files for changes to data model requirements, construction projects or rehabilitation projects for PTC.
- Manage, review, and track signal asset changes in compliance with the PTC Configuration Management Program. Working closely with design consultants, controls signal drawings for PTC. Manages and controls the PTC library of record documentation, such as asset management, manuals, warranties, design documents, regulatory plans, test reports and audit reports, in electronic and/or hard copy.
- Manage the validation and verification process of critical features and signal wayside interface units by creating test sheets and documentation needed. Verifies and witnesses field validation of changes and updates to PTC files. Develop, periodically review, maintain and execute test procedures for PTC system components necessary for periodic and routine software or hardware updates.
- Participate in a hierarchy of change control meetings and works closely with multiple disciplines, host and tenant railroads, designers, vendors, consultants, and contractors.
- Work with Purchasing, Contracts, Contract Compliance, and other departments to develop request for proposals and engineer's estimates for signal and communication design, and field surveying. Prepares contract proposal documents for release. Serves on evaluation committees for proposal submissions and participates in the preparation of board reporting documents for board acceptance of track related contracts.



- Review design plan submittals; field review construction projects. Attends and participate in various meetings with city, state and federal staff, representing SCRRA's interests in maintaining the integrity of SCRRA's signal, PTC assets and systems. Develop and manage contract task orders of SCRRA's on-call design, maintenance, and construction service providers.
- Assist with the design, implementation and management of the PTC Signal and train systems and associated processor logic programs for the SCRRA signal and PTC system.
- Collaborate with other SCRRA departments and contractors for assistance in trouble shooting and repairing locomotive and cab car systems electrical, mechanical, air brake, event recorder, communication and mechanical components impacting PTC functionality including tachometer, antennas, and telecommunications.
- The responsibilities outlined above are representative of the role but not exhaustive. Additional duties may be assigned as needed, and reasonable accommodations will be provided to qualified individuals with disabilities in accordance with applicable laws.

MINIMUM QUALIFICATIONS

Education and Experience

- Bachelor's degree in Computer Science, Electrical or Mechanical Engineering, or a related field.
- A minimum of five (5) years of work experience in electronic and/or communication systems.
- Experience working for a Class I or commuter railroad.
- Must possess a current California Professional Engineer's license or demonstrate the ability to obtain an Engineer-In-Training (EIT) license within two (2) years and a Professional Engineer's license within five (5) years of employment.
- A combination of training, with a minimum of an Associate Degree and/or experience that provides the required knowledge, skills, and abilities, may be considered when determining minimum qualifications. Advanced relevant coursework may also substitute for a portion of the required experience.
- A valid Class "C" California driver's license with a satisfactory driving record of no more than two moving violations and no DUIs within the last three years

Preferred Qualifications

None

Knowledge, Skills, and Abilities

Knowledge of:

- Electrical, mechanical, and pneumatic components, air brakes, event recorders, and networking, communications, and Train Control Systems and associated subsystems
- The Authority's operations and business practices, as well as the railroad regulatory environment
- System Testing procedures and best practices
- Document control procedures

Skilled In:

- Use of Microsoft Office
- Use of Oracle and other database tools



Ability to:

- Communicate effectively, both orally and in writing, to individuals and groups at all levels within and outside of the organization
- Multitask and manage multiple projects

PHYSICAL REQUIREMENTS

- Transition between a stationary position at a desk or work location and move about Metrolink facilities or other work site locations
- Operate tools to perform the duties of the position, such as computers, office equipment, and work-related machinery
- Transport equipment or boxes up to 25 lbs
- Exchange ideas by means of communication
- Visual acuity to detect, identify, and observe employees or train movement and any barriers to movement when working on or near railroad tracks
- Hear and perceive the nature of sounds when working on or near railroad tracks
- Balance, ascend/descend, climb, kneel, stoop, bend, crouch, or crawl within assigned working conditions and or locations

Working Conditions

Position requires work in a normal office environment with little exposure to excessive noise, dust, or temperature. Work may also be conducted in outdoor environments, at construction sites, Railroad Track and Right-of-Way environments, and warehouse environments, with possible exposure to individuals who are hostile or irate, moving mechanical parts, and loud noises (85+ decibels, such as heavy trucks, construction, etc.)

Southern California Regional Rail Authority is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the Authority will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

Last Updated: January 2026

