



## Signal Technician

### Purpose

Under direction of a Signal Maintenance Supervisor, the Signal Technician position is responsible for maintenance and repair of grade crossing warning devices, signaling and SMART's Positive Train Control (PTC) system, rail safety communication systems and car borne signal components.

### Description

This position will be responsible for the inspection, testing and diagnostic analysis of SMART's grade crossing warning devices, wayside signal systems, rail safety communication systems, and car borne components. This position will perform maintenance on railway signal and communications equipment such as track signals, Closed Circuit Television (CCTV) cameras, positive train control equipment, fiber optic links, programmable multiplexer servers, stand alone computers, power supplies and associated communications equipment.

### Duties and Responsibilities include, but are not limited to the following:

*Class specifications are intended to present a descriptive list of the range of duties performed by, and minimum requirements required of, employees in the class. Specifications are not intended to reflect all duties performed within the job. SMART reserves the right to determine and amend job responsibilities.*

- Inspects, tests, modifies, maintains and repairs all signal and communication related equipment including electronic, mechanical, and hydraulic equipment including grade crossings mechanisms, switch machines, power supplies, battery systems, CCTV, surveillance cameras, display systems, and other complex machinery and equipment.
- May conduct track inspections as needed.
- Conducts fault diagnosis.
- Records and documents maintenance and diagnostic data.
- Responds to emergency calls as necessary and per operating guidelines.
- Determines work priorities for emergency maintenance tasks in the absence of on-site supervision.
- Operates switch machines manually and by Local Control Panels under revenue and non-revenue conditions.
- Flag trackway to provide safe rail work zones and set up work zone traffic control areas.
- Operate assigned vehicles including high-rail.
- Works in assigned areas such as utility support structures and poles under a variety of weather conditions.
- Works closely with Central Control and follows instructions while working on or near the right-of-way.
- Assist other workers and divisions in routine and emergency situations affecting the safe movement of trains.
- Assists Track Maintainers as needed.
- Enters data into SMART's Maintenance Management Information System (MMIS)
- Knows and adheres to SMART, FRA and CPUC standards and regulations.

- References parts catalogues and other sources to determine correct parts for specific applications.
- References manufacturer schematics (manual and online) to resolve maintenance issues.
- Maintains work area in a clean and orderly fashion.
- Safely operates equipment.
- Performs other related duties as required.

## **Qualifications, Skills, Knowledge, and Abilities**

### **Minimum Qualifications:**

- Must possess a high school diploma, GED or recognized equivalent.
- Three years of increasingly responsible electrical, electronic, mechanical and hydraulic experience, including at least one year of experience in a railroad or rail transit environment.
- An Associates degree in Electronics/Electrical field from an accredited Technical or Community College may be substituted for two years of experience. Education may not be substituted for Railroad experience with the exception of a degree or certificate from a Railroad educational institution, which may be substituted for six months of railroad experience.
- Possession of a valid California's drivers' license (or ability to obtain one within 60 days of employment).

### **Other Qualifications:**

- Class A Driver's License or ability to obtain one within the first 12 months of employment.
- Knowledge of 49 CFR 236 regulations – Rules, standards and instructions governing the installation inspection, maintenance and repair of signals and train control systems, devices and appliances.
- Successful completion of SMART Training program and post-training qualification period.
- Satisfactory driving record as defined below:
  - No more than two moving violations and/or "at fault" accidents within the last 3 years;
  - No "at fault" in a fatal accident within the past 5 years;
  - No leaving the scene of an accident within the past 3 years;
- No DUI's or Reckless Driving codes within the last 7 years on the current DMV printout. Must be able to successfully pass a pre-employment medical exam that uses the standards of the California Commercial Driver's License.
- Must participate in the Department of Transportation Drug and Alcohol Testing program per 49 CFR Part 219 in it's entirety.

### **Skill in:**

- Interpreting and applying oral and written instructions in a consistent manner;
- Computer usage including the Microsoft Office Suite (Word, Excel, Outlook, Email);
- Reading and understanding manufacturer blueprints and schematics;
- Utilizing a maintenance management system;
- Construction or related work.

**Knowledge of:**

- Fundamentals of railway signaling and communications;
- Electrical, electronic and microprocessor based control systems as well as analog and digital communication systems;
- Analyzing and evaluating malfunctions in transit equipment and determining repair requirements and timelines;
- Safe working practices, including techniques for safely lifting and moving heavy objects;
- OSHA and DOT Safety regulations;
- General first aid and shop safety practices.

**Ability to:**

- Assist in the development and refinement of Standard Operating Procedures; Successfully complete vendor training on signals and communications equipment and maintenance procedures as well as SMART training;
- Carry out oral and written directions;
- Maintain accurate records and files;
- Make logical decisions and sound judgments using common sense;
- Perform the physical requirements of the job;
- Plan, organize and establish reasonable priorities;
- Manage workload effectively including multiple tasks and projects;
- Work in a team environment fully supporting the goals and objectives of the maintenance and rail operations;
- Create and maintain effective working relationships with those contacted in the performance of work duties and responsibilities;
- Demonstrate a high level of adaptability in a fast paced work environment requiring concentration, teamwork and attention to safety and detail;
- Make quick decisions within a framework of rules;
- Work in a constant state of alertness and in a safe manner;
- Work irregular work hours, early and late shifts, holidays and weekends;
- Understand, read and communicate (both orally and in writing) in Standard English.

**Physical Working Environment**

The physical demands and work environment are characteristic of a train, station, yard and maintenance environment; the essential functions and responsibilities of this position are performed in a field environment in various weather conditions around moving vehicles and equipment. Works in assigned areas such as high places, support structures and poles. May include work on ladders, bridges, open track trestles and walking on uneven ground. Frequent exposure to electrical, weather, mechanical and physical hazards. Uses hand tools to perform a wide range of construction, installation, maintenance and repair activities

**Physical Requirements**

During the performance of the daily, weekly and monthly activities, this position may require prolonged periods in a stationary position, movement about the inside of an office, positioning self in various stances or postures in the performance of daily activities; This position may require repetitive operation using a computer keyboard or calculator involving repetitive motion of the wrists, hands or fingers; This position may require both near and far visual acuity to perform

activities such as preparing and analyzing data and figures, transcribing, viewing a computer terminal, and/or extensive reading; This position may require expressing or exchanging information by means of the spoken word when dealing with clients, customers, or other employees; This position may require perceiving the nature of sounds at normal speaking levels with or without correction and ability to receive detailed information through oral communication. The need to lift, drag, and push files, boxes, equipment, paper and documents weighing up to 50 pounds is also required. . May be required to walk on uneven ground and may be exposed to extreme weather conditions and moving machinery while performing field work or inspections. Must be able to perform field inspections and investigations. Must have the visual acuity and hearing capability sufficient to perform the essential functions of the job. The physical demands and work environment described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

**Position Details:**

- Base hourly wage: \$51.19 per hour.
- There is a 12-month probationary period following appointment to this position.
- FLSA Status: Non-Exempt.
- A thorough background check will be required including, but not limited to: current and past employers, personal contacts, education verification. A credit report will be required for positions covered under Labor Code 1024.5.
  - A complete list of background checks documents will be provided upon request.
- Position subject to Hours of Service DOT and FRA Regulations.
- A pre-employment physical, including a urinalysis drug screen, will be required.
- A pre-employment psychological screening, administered by a licensed/certified psychologist, will be required.
- This position is classified under the United State's Department of Transportation (DOT) and Federal Railroad Administration (FRA) as Safety Sensitive and/or regulated under Hours of Service. Under the DOT and FRA, employees in this classification are subject to pre-employment, random, reasonable suspicion, reasonable cause, post-accident, return-to-duty and follow-up drug testing and/or alcohol breath testing.

The Sonoma Marin Area Rail Transit District is an Equal Opportunity Employer