



SYSTEMS MAINTAINER, SIGNALING, COMMUNICATIONS, ELECTRICAL, eBART

JC: 000152
PG: 400
FLSA: Non-Exempt

BU: S01 (SEIU)
Created: February 2016
Revised October 2018

*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 supervision, responsible for ensuring safe and timely inspection, maintenance and repair of train control, signal, communications and electrical systems and facilities within the dedicated eBART railroad right-of-way, stations and maintenance facility limits; complies with applicable rules and regulations; and performs other related duties as assigned.

CLASS CHARACTERISTICS

This journey level classification is responsible for the inspection, testing and diagnostic analysis of wayside signal systems, rail safety communication systems, and car borne components. Additionally, this class performs maintenance on railway signal and communications equipment such as Closed Circuit Television (CCTV) track signals, train control equipment, power supplies and associated communications equipment. This classification is distinguished from the Systems Maintainer, Track & Civil in that the latter is primarily responsible for the inspection, maintenance and repair of mechanical elements of right-of-way facilities.

REPORTS TO

This classification reports to Assistant Superintendent Systems, eBART and/or his/her designee.

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

1. Inspects, maintains, tests and repairs all train control signals, communications and electrical systems according to all original equipment manufacturer requirements, industry standards, California Public Utilities Commission (CPUC) and Federal Railroad Administration (FRA) regulations, and eBART policy and procedure.
2. Performs inspection, maintenance, testing and repair of all electrical systems, equipment and components located in, maintenance shop, stations, signal houses, and other eBART facilities.
3. Installs, maintains, repairs, and modifies a wide variety of industrial systems and equipment such as controls, transformers, motors, motor starters and controllers, generators, lighting and back-up emergency lighting systems, fire alarm systems, and battery powered equipment.
4. Performs inspection, maintenance, testing and repair of all computerized, electronic, and electro-mechanical train control/signal equipment in the eBART yard, mainline, and control facilities; diagnoses, repairs, removes and replaces power supplies, relays, switches and related electrical components.

5. Adjusts, removes and replaces circuit boards, sensors, and related electronic components; adjusts, repairs, removes and replaces mechanical devices and parts such as gears, springs, clutches and rods in eBART facilities.
6. Performs inspection, maintenance, testing and repair of all analog and digital, data and voice, network communication devices and infrastructure including, telephones, Closed Circuit Television (CCTV), radio, public address, dynamic signs, and computer network systems.
7. Performs inspection, maintenance, testing and repair of communication system infrastructure such as wiring plants, fiber optic cables, networking switches and routers, and wireless systems; adjusts voltage, frequency, tuning, and sensitivity of components for proper operation. Uses diagnostic test equipment and precision measuring devices in the course of the work.
8. Responsible for maintenance and repairs of station appurtenances; responds to service calls to diagnose and correct emergencies involving the track/signal/communications/electrical systems; determines whether equipment can be repaired in the field and whether or not “work-arounds” are possible to maintain system service.
9. May assist vehicle maintenance staff with troubleshooting or repair of revenue vehicle systems.
10. May assist Track and Civil maintenance staff with troubleshooting or repair of track and mechanical systems.
11. Responsible for generating work history documentation including incident reports, maintenance and inspection records, and daily logs.
12. Responsible for functioning as an “Employee-In-Charge” (EIC) in providing protection for other eBART personnel or contractors working on eBART property.
13. Must develop and maintain positive working relationships with co-workers, supervisors, contractors and customers, and effectively handle conflict situations.
14. Performs other duties as assigned.

This classification will be engaged in original and other duties as assigned without regard to the limitations of job descriptions in order to maximize the efficient delivery of eBART services.

QUALIFICATIONS

Knowledge of:

- Principles of electrical systems, analog and digital electronics, and electronic control circuits.
- Methods, techniques, materials, tools and equipment used in mechanical, pneumatic, and hydraulic system testing and inspection.
- Methods and procedures for testing and troubleshooting electronic equipment.
- Principles of facilities power distribution systems, equipment, electronics and relay control logic.
- Occupational hazards and standard safety practice.
- Federal, State and local laws, codes and regulations, including General Order No. 175-A of the CPUC and Title 49, Section 213.7 of the Code of Federal Regulations (CFR).

Skill in:

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- Assessing and troubleshooting electrical, electronic or electro-mechanical equipment.
- Installing, maintaining and repairing communications and electrical systems.
- Reading and interpreting diagrams, engineering drawings, manuals, schematics and work orders for signal, communications, train control and electrical and electronic control.
- Assessing situations and exhibiting sound judgment to make appropriate decisions within the authority of the classification.
- Performing the duties of the job safely, efficiently and in compliance with all applicable rules and regulations without direct supervision, including the ability to operate required vehicles and equipment.
- Maintaining alertness, awareness and vigilance.
- Maintaining accurate logs and records of work performed.
- 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:

An Associate Degree in electronics technology, or a certification in in electronics, electrical systems repair or a closely related field from an accredited college or vocational school.

Experience:

Two (2) years of (full-time equivalent) verifiable experience as a railroad signal and communications systems maintainer, or in the maintenance, trouble-shooting and repair of electrical, electronic, electro-mechanical or communications systems and equipment.

Substitution:

Additional qualifying experience as outlined above may be substituted for the education on a year-for-year basis. An Associate's Degree is preferred.

Other Requirements:

Must possess and maintain a valid class "C" California Driver's License.

Ability to obtain a valid class "A" California Commercial Driver's License and drive heavy construction vehicles as necessary.

Must meet vision and color recognition requirements for signal recognition and repair.

Must be willing to work off-hour shifts, holidays and weekends beyond your regular scheduled hours.

Must be able to lift or position a fifty (50) pound object.

WORKING CONDITIONS

Environmental Conditions:

Shop environment: exposure to shop machinery, physical, electrical and chemical hazards; Station environment: exposure to confined spaces and noise; Field environment: exposure to physical, electrical and chemical hazards, uneven surfaces, confined spaces, underground, aerial structures and inclement weather conditions.

Physical Conditions:

Must be able to work in cramped overhead, confined, enclosed or awkward spaces including maintenance pits, equipment rooms and roof hatches.

Must be able to stoop, bend, crouch, crawl, balance and climb.

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Must be able to walk long distances over uneven terrain.

BART EEO-1 Job Group: 4000 – Technicians

Census Code: 1550 – Engineering Technicians

Safety Sensitive: Yes